# BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF AN INVESTIGATION
INTO THE PUBLIC SERVICE COMPANY
OF NEW MEXICO'S PURCHASE OF
PALO VERDE NUCLEAR GENERATING
STATION UNIT 1 & 2 LEASES
AND THE FINANCIAL IMPACT
ON RATEPAYERS

Case No. 19-00/02/UT
FILED IN OFFICE OF

NM PUBLIC REGULATION COMM

JOINT PETITION FOR EXPEDITED INVESTIGATION REGARDING
PUBLIC SERVICE COMPANY OF NEW MEXICO'S PURCHASE OF PALO VERDE

NUCLEAR GENERATING STATION UNIT 1 & 2 LEASES
AND THE FINANCIAL IMPACT ON RATEPAYERS

Joint Petitioners, by and through their undersigned attorney, file this Joint Petition for a formal investigation with respect to the purchase by Public Service Company of New Mexico ("PNM") of Palo Verde Nuclear Generating Station ("PVNGS" or "PV" or "Palo Verde") Unit 1 & 2 leases, pursuant to Commission Rules §1.2.2.13 and §17.7.3.10 NMAC and based on the Commission's regulatory and supervisory authority under NMSA 1978, §§ 8-8-4. A and B(7) and (10), 62-6-4.A, 62-3-3.H, 62-8-1, 62-8-7 and 62-10-1. It is in the public interest and well within the Commission's *express* authority to regulate and supervise every public utility, evaluate the issues raised herein and to proceed with an expedited formal investigation into PNM's planned purchases of its expiring leases of 104 megawatts ("MW") at PVNGS Unit 1 and 10MW at PVNGS Unit 2 to thoroughly analyze all the issues related thereto in order to regulate and supervise this investor-owned utility to ensure that reasonable and proper services shall be available at fair, just and reasonable rates.

For the reasons set forth below, Joint Petitioners request that the Commission find that:

(i) The Commission has jurisdiction over the matters addressed herein; and

- (ii) The Petition seeks the initiation of a formal expedited investigation into the facts and circumstances of PNM's planned purchase of its expiring leases at PVNGS Unit 1 and Unit 2 in 2023 and 2024, respectively. Due to the fact that PNM must provide irrevocable notice to the lessors of PNM's expiring leases by January 15, 2020 and January 15, 2021, respectively, time is of the essence and a formal expedited investigation is necessary to protect the public interest; and
- (iii) The passage of the Energy Transition Act ("ETA") requires that no later than January 1, 2025, renewable energy shall compromise no less than 40 (forty) percent of each public utility's total retail sales of electricity to New Mexico customers. This constitutes a "material change" to PNM's 2017-2036 Integrated Resource Plan, §17.7.3.10 NMAC, and may change the most cost effective portfolio ("MCEP") of resources; and
- (iv) The receipt by PNM of 345 bid proposals to PNM's 2017 Request for Proposals ("RFP") may also constitute a "material change" to PNM's Integrated Resource Plan ("IRP"), and may alter the cost effective calculation of the purchase of the PVNGS Unit 1 & 2 leases; and
- (v) NM PRC precedent requires PNM to consider all feasible alternatives before making an additional capital investment of this magnitude and extending the life of these nuclear resources; and
- (vi) For the above stated reasons, more fully described below, require PNM to answer this Joint Petition for Investigation in accordance with Commission rules and statutory authority and, upon receipt of PNM's answer, set further proceedings on the Joint Petition that allow Petitioners, the Commission and any interested parties to pursue discovery to investigate whether any further monies should be invested at PVNGS, including:
  - the outcome of an appraisal determining the value of the PV leases by a disinterested third party professional; and

- 2. if the purchase of the PV leases is consistent with the increase in the renewable portfolio standard ("RPS") as outlined in the ETA; and
- 3. the evaluation of the costs and risks of the purchase of the PV leases versus the 2017 RFP bid results on a consistent and comparable basis, taking into consideration environmental impacts, including decommissioning risks and liabilities, and other consequences consistent with the public interest.

This information provided in a timely manner will allow the Commission to make the ultimate well-informed decision: whether allowing the PV leases to expire or purchasing the PV leases is the prudent decision in order to provide retail electric service to the public at just and reasonable rates.

#### I. Joint Petitioners

Many of the Petitioner Organizations, and their constituent members, are retail service customers of PNM and are affected by PNM's retail service rates. Other Petitioner Organizations, and their constituent members, are organized to oppose uranium mining, milling and the generation of nuclear electricity, and/or are consumer advocates and care about PNM's continuously rising electric rates, and/or are advocates of clean renewable energy and/or are or have been or will be impacted by pollution, toxic contamination and radioactive waste.

- a. Daniel Earnest Tso, Navajo Nation Council Delegate
- b. **New Energy Economy**: was founded in 2004 to build a renewable energy future for the health, environment, and economy of New Mexico.
- c. Citizens for Fair Rates and the Environment (CFRE): is a Silver Citybased association of PNM ratepayers advocating for a speedy transition to

environmentally sane renewable energy resources at fair market rates (i.e., rates that are just and reasonable for ratepayers).

- d. The Climate Change Leadership Institute (CCLI): is a non profit organization dedicated to phasing out greenhouse gas emissions and empowering community through the ethics of conservation, the adoption of clean energy and the act of taking responsibility as a civil society.
- e. Concerned Citizens of Wagon Mound & Mora County: is an organization that has spent over 19 years educating, organizing and bringing meaningful participation and legal action into waste, water rights, and oil and gas issues in Mora County. The organization also works on food justice issues coordinating a community garden and a farm-to-table project in the Wagon Mound Public Schools.
- f. **Dooda (NO) Desert Rock**: is a grassroots advocacy organization that opposed the construction of a large mine-mouth, coal-fired power plant on the Navajo Reservation near Shiprock and the Four Corners. "Dooda" means "no" or "absolutely not" in Navajo. Since the successful opposition to *that* plant the organization works to block extractive industry initiatives that violate the rights of Mother Earth, all living creatures, the environment and the Five Fingered Peoples. The organization mobilizes and educates Navajos and their supporters to protect the environment.
- g. **Earth Care**: is an organization dedicated to educating and empowering youth and families in northern New Mexico to create healthy, just, and sustainable communities.
- h. Food & Water Watch: is an advocacy organization that uses scientific research to promote the grassroots movement to protect our drinking water and

environment.

- i. **Hispano Round Table de Nuevo México**: seeks advancement of education, employment, economic development, environmental justice, civil rights, and social justice for Hispanic Americans.
- j. Honor Our Pueblo Existence (HOPE): is a community-based organization located at Santa Clara Pueblo that addresses environmental and health issues and promotes sustainability and traditional life ways.
- k. Honor the Earth: is a twenty-year old organization dedicated to creating awareness and support for Native environmental issues and developing needed financial and political resources for the survival of sustainable Native communities.
- 1. Indigenous Life Ways, Inc.: is an indigenous-focused organization that facilitates opportunities for individuals and community groups to utilize traditional knowledge, ceremonies, and a deep understanding of our communities to continue the preservation of indigenous culture and our sacred sites; engages proactively toward climate adaptation; cultivates sustainable development; and builds individual and community capacity.
- m. The Institute for Local Self-Reliance: is an organization that supports the creation of economic systems that embody democratic values. The organization's Energy Democracy program works to expand clean, dispersed energy generation and increase local ownership.
- n. The League of United Latin American Citizens (LULAC) is the oldest surviving Latino civil rights organization in the U.S. It was established on February 17, 1929, in Corpus Christi, Texas, largely by Hispanic veterans of World War I who

sought to end ethnic discrimination against Latinos in the United States. LULAC has active councils in many states, and a professional staff, including in New Mexico.

The Board of LULAC supports this litigation.

- o. **Los Jardines Institute**: Spanning 70 years of combined organizing experience in New Mexico, nationally and internationally, the Institute provides opportunities for social, environmental and economic justice organizing, and education. Los Jardines is committed to building a multi-cultural, multi-generational movement and privileges traditional, land-based ways of knowing in the places where we "live, work, play, pray, and go to school."
- p. Multicultural Alliance for a Safe Environment (MASE): is an organization representing uranium impacted communities in New Mexico, that works to restore and protect the natural and cultural environment and to develop and strengthen sustainable ways of working and living that promote public health and well being.
- q. **Physicians for Social Responsibility-NM**: is a chapter of the largest physician-led organization (50,000 members nationwide) working to protect the public from threats of nuclear proliferation, climate change, environmental toxins, and other threats to global survival.
- r. Renewable Taos: is a grassroots organization dedicated to promoting and facilitating a full transition to renewable energy and energy efficiency in Taos County and our surrounding region.
- s. **Retake Our Democracy**: is an all volunteer, 501-c-4 organization whose goal is to make it easier for people to effectively raise their voices, to advocate for social, racial, economic, gender, and climate justice, and to advocate for legislation, policies,

and candidates who place people and the planet over profit.

- t. Rio Arriba Concerned Citizens (RACC): is an entirely grassroots volunteer effort. The organization's mission is to protect the public health, land, air, and water of the Rio Chama Watershed, Rio Arriba County, and the State of New Mexico, and to promote sustainable development through education, collaborative planning, job creation, and community involvement. RACC joins this joint petition opposing PNM's purchase of Palo Verde nuclear leases on the basis that ratepayers will be put at risk for significant debt for decommissioning. Further, nuclear energy, with burgeoning waste disposal risk, still not solved for more than 40 years, poses significant potential threats and outsized burdens to ratepayers.
- u. Securing Economic and Energy Democracy (SEED) of Southwest New Mexico: is an organization that works to create regional economic and environmental security, justice and resilience by controlling and generating renewable energy and maintaining a cleaner, greener region.
- v. The Southwest Indigenous Uranium Forum (SIUF): is made up of members primarily from the Navajo, Havasupai, Zuni, Yaqui, Dakota Sioux, Ute, and Hopi Tribes and Laguna and Acoma Pueblos and is focused on the environmental and health impacts of uranium development in the Grants Mineral Belt on indigenous peoples. SIUF promotes the wise and practical uses of renewable energy such as solar, wind, and tidal and the pursuit of soft energy paths and applications based on traditional ecological knowledge and practices.
- w. Student Advocacy Union NM: is a youth organization that brings high school students from around Santa Fe and surrounding areas together to share, discuss, and

organize around issues like climate change, immigration rights, and gun control.

- x. Taos United/Taoseños Unidos: is a non-partisan, nonprofit organization of 520 local community activists working for a fair and just democracy, human rights, environmental stewardship and the welfare of our community.
- y. **Tewa Women United**: is a collective of tribal women in the Tewa homelands of Northern New Mexico dedicated to the promotion of educational, social and benevolent purposes, especially for ending violence against Native Women, Mother Earth, and to promote peace in New Mexico.
- z. **WildEarth Guardians**: is an advocacy organization that protects and restores the wildlife, wild places, wild rivers, and health of the American West.

## II. Respondent

Respondent's legal name is Public Service Company of New Mexico (PNM). PNM's mailing address is Corporate Headquarters, 414 Silver Ave., SW, Albuquerque, NM 87102-3289. Two of PNM attorneys' names and contact information are:

Stacey Goodwin, Esq., email address is: <a href="mailto:Stacey.Goodwin@pnmresources.com">Stacey.Goodwin@pnmresources.com</a></a>
And

Richard L. Alvidrez, email address is: RAlvidrez@mstlaw.com

A copy of this Joint Petition was mailed to PNM Headquarters and was sent via email to Ms. Goodwin and Mr. Alvidrez.

#### III. The Commission's Authority

1. Article XI, Section 2 of the New Mexico Constitution, entitled "Responsibilities of Public Regulation Commission," provides:

The public regulation commission shall have responsibility for regulating public utilities, including electric, natural gas and water companies ... and other public service companies in such manner as the legislature shall provide.

2. The Constitutional mandate could not be clearer: it is the Public Regulation Commission's duty to regulate electric utilities. *Mountain States Tel. & Tel. Co. v. New Mexico State Corp. Commission*, 90 N.M. 325, 563 P.2d 588, 593 (1977) (The words "shall ... be charged with the duty" indicate that the provision is mandatory rather than discretionary.) The legislature is obligated to set up the ground rules for that regulation, and it has done so by enacting the Public Utilities Act. When reviewing the duties of the Commission, the New Mexico Supreme Court found that this duty was not only "clear," but "all-inclusive," stating:

It is difficult to conceive of a more clear and all-inclusive grant of power to a governmental agency. The Commission has a duty to be a prime mover in the procedure to see that the public interest is protected by establishing reasonable rates and that the utility is fairly treated so as to avoid confiscation of its property. Considering this broad mandate it could hardly be envisioned that the Commissioners would sit as spectators, like Roman Emperors in the coliseum, and simply exhibit a "thumbs-up or thumbs-down" judgment after the dust of battle settles in the arena.

Id. at 594.

- 3. The Commission's oversight of "public utility facilities is the cornerstone of New Mexico's regulatory scheme. In return for monopoly market power in its industry, the utility must submit to Commission regulation." *In re Pub. Serv. Co.*, 815 P.2d 1169, 1176-1177, New Mexico Supreme Court, 1991.
- 4. The Commission may issue rules to implement the other authority established in the Public Regulation Act, the Public Utility Act and other pertinent statutes. Section 8-8-4 of the Public Regulation Commission Act states that "[t]he commission shall administer and enforce the laws with which it is charged and has every power conferred by law." Subsection B (7) of

section 8-8-4 states that the Commission may "conduct investigations as necessary to carry out the commission's responsibilities." Subsection B (10) of section 8-8-4 states that the Commission may "adopt such reasonable administrative, regulatory and procedural rules as may be necessary or appropriate to carry out its powers and duties." NMSA 1978, §8-8-4.A, B (7) and (10).

- 5. The Commission has expansive power under the New Mexico Constitution and the Public Utility Act to supervise and regulate public utilities. The Commission has "general and exclusive power and jurisdiction to regulate and supervise every public utility in respect to its rates and service regulations ... all in accordance with the provisions and subject to the reservations of the Public Utility Act . . . and to do all things necessary and convenient in the exercise of its power and jurisdiction." NMSA 1978, § 62-6-4(A).
- 6. The Public Utility Act requires that public utility rates be just and reasonable.

  NMSA 1978, § 62-8-1. "Section 62-8-1 offers no guidance to the Commission for achieving this goal, nor does it specify procedures." Otero County Electric Cooperative, Inc. v. New Mexico Public Service Commission, 108 N.M. 462,464, 774 P.2d 1050, 1052 (1989). "To set a just and reasonable rate, the Commission must balance the investor's interest against the ratepayer's interest." Behles v. New Mexico Public Service Commission, 114 N.M. 154, 161, 836 P.2d 73 (1992). As the Supreme Court has concluded, "Neither [interest] is paramount ... we cannot focus solely on investor interests." Mountain States Tel. & Tel. Co. v. New Mexico State Corporation Commission, 99 N.M. 1, 7-8, 653 P.2d 501 (1982).
- 7. Under the Public Utility Act any "increase in rates or charges sought by a public utility, the burden of proof to show that the increased rate or charge is just and reasonable shall be upon the utility." NMSA 1978, § 62-8-7(A).
  - 8. A complaint made and filed by any person or party affected, that any rate, service

regulation, practice or service in effect or proposed to be made effective may be unfair, unreasonable, unjust or inadequate. The Commission may proceed, if the Commission finds probable cause for said complaint, and whenever it deems that the public interest or the interest of consumers and investors so requires, may proceed, to hold such hearing, as it may deem necessary or appropriate. NMSA 1978, § 62-10-1; *See also*, Commission Rule §1.2.2.13 NMAC.

- 9. Commission Rule §17.7.3.10 NMAC¹ allows the PRC to investigate whether the following circumstances constitute a "material change" to the proposed Most Cost Effective Portfolio ("MCEP") in PNM's proposed 2017 PNM's 2017-2036, Integrated Resource Plan:
  - a. the outcome of an appraisal determining the value of the PV leases by a disinterested third party professional; and
  - b. if the purchase of the PV leases is consistent with the increase in the renewable portfolio standard ("RPS") as outlined in the ETA; and
  - c. the evaluation of the costs and risks of the purchase of the PV leases versus the 2017 RFP bid results on a consistent and comparable basis, taking into consideration environmental impacts, including decommissioning risks and liabilities, and other consequences consistent with the public interest.

# IV. Relevant Legal Standards

10. <u>Prudence</u>: The Commission has adopted the following definition of "prudence": To be included in rates, expenditures on utility plant must (1) have been prudently incurred; and (2) be used and useful. Case No. 2146, Part II, Final Order 53; *Accounting for Pub. Utils.*, § 4.03.

The prudent investment theory provides that ratepayers are not to be charged for negligent, wasteful or improvident expenditures, or for the cost of management decisions which are not

<sup>&</sup>lt;sup>1</sup> §17.7.3.10 OBLIGATION TO NOTIFY OF MATERIAL CHANGES AND UPDATE ACTION PLAN: The utility shall promptly notify the commission and participants of material events that would have the effect of changing the results of the utility's IRP had those events been recognized when the IRP was developed. As part of this notification, the utility shall explain how this event(s) has changed the action plan.

made in good faith. "In other words, ratepayers are not expected to pay for management's lack of honesty or sound business judgment." Case No. 2146, Part II, Final Order 50 (4-5-89).

A utility only receives a profit on "prudent investments at their actual cost when made . . . [and is] limited to a standard rate of return." *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 309 (1989).

Prudence is that standard of care which a reasonable person would be expected to exercise under the same circumstances encountered by utility management at the time decisions had to be made. In determining whether a judgment was prudently made, only those facts available at the time judgment was exercised can be considered. Hindsight review is impermissible.

Imprudence cannot be sustained by substituting one's judgment for that of another. The prudence standard recognizes that reasonable persons can have honest differences of opinion without one or the other necessarily being 'imprudent.'

Case No. 2087, Order on Burden of Proof and Specific Issues to be Addressed (10-4-98), *cited*, in the Final Order of 10-00086-UT, p. 61. The New Mexico Supreme Court has affirmed this definition of prudence. *In re Petition of PNM Gas Servs.*, 2000-NMSC-012, 129 N.M. 1, 1 P.3d 383, 405 (N.M. 2000); *see also* Corrected Recommended Decision, 15-00261-UT, Aug. 15, 2016, pp. 88-89.

Because the Commission can "exercise broad power to supervise and regulate utilities in order to protect utility ratepayers and ensure that the utility provide [] reasonable and proper service at fair, just, and reasonable rates," it can inquire into matters within its jurisdiction and ensure that a sufficient factual record is developed to support utility investment of this magnitude before it actually makes said investment in capital. 16-00276-UT, Revised Order Partially Adopting Certification of Stipulation, 1/11/18, pp. 10-11, ¶¶ 36-37.

11. <u>Consideration of Alternatives</u>: It is incumbent that PNM consider all feasible alternatives before a financial re-commitment in PVNGS *before* it makes any investments in the thirty-three year old unit nuclear plant (as of today's date).<sup>2</sup>

In the PNM Ojo Line Extension ("*OLE*") Case No. 2382<sup>3</sup> for example, the Commission affirmed PNM's obligation to reasonably identify and evaluate all of its feasible resource alternatives, as follows:

... a utility carries the burden in a resource acquisition case to show that the resource it proposes is the most cost-effective among feasible alternatives. The Commission there rejected PNM's request for a CCN for a transmission line based on the Commission's determination that "PNM's alternatives analysis is not sufficiently reliable" and that "PNM has not properly shown that OLE is the best alternative even among those alternatives that PNM considered. Thus even assuming a need on the transmission system for the sake of argument, the Commission remains unconvinced that the public convenience and necessity require or will require the OLE Project as the proper response to such a need." Recommended Decision, pp. 98, 102, 166 P.U.R. 4<sup>th</sup> at 355-356. The Commission found that it has the authority to examine alternatives to utility proposals to satisfy needs identified by a utility, that there may be various solutions for such needs and that it would not be in the public interest for the Commission to grant a CCN for a proposed project which might meet

<sup>&</sup>lt;sup>2</sup> Palo Verde Nuclear Generating Station is licensed to operate until 2047 by the U.S. Nuclear Regulatory Commission. The Palo Verde Nuclear Generating Station is located on 4,000 acres of land, and it consists of three units. The total thermal capacity of the plant is approximately 4000 MW. Construction for PVNGS began in 1976. Commission date was in 1986. PVNGS Units 1 and 2 went into commercial operation in 1986 and Unit 3 in 1988, and it took twelve years to build and cost about 5.9 billion dollars. Palo Verde is the only nuclear generating facility in the world that is not located adjacent to a large body of above-ground water. Arizona Public Service is the operator of the plant. PNM has a 10.2% interest in the nuclear plant. The other owners include: Arizona Public Service – 29.1% interest; Salt River Project – 17.5% interest; El Paso Electric – 15.8% interest; Southern California Edison – 15.8% interest; Southern California Public Power Authority – 5.9% interest; and Los Angeles Dept. of Water & Power – 5.7% interest.

The Palo Verde 500 kV switchyard is a key point in the western states power grid, and is used as a reference point in the pricing of electricity across the southwest United States. In addition, due to both the strategic interconnections of the substation and the large size of the generating station, the Western Electricity Coordinating Council considers a simultaneous vulnerability loss of PVNGS 2 of the 3 units the worst case contingency for system stability.

3 In Re Public Service Co. of New Mexico, 166 P.U.R. 4th 318, 337, 355-356 (1995).

a utility's needs but is the worst among a range of alternatives. Recommended Decision, p.  $49,\,166\,P.U.R.\,4^{th}$  at  $337.^4$ 

The Hearing Examiner's December 22, 2015 Order in Case No. 15-00205-UT stated:

Instead of specifying in advance the alternatives that a utility must analyze to support its CCN application, the Commission's practice has been to allow utilities to develop and attempt to justify the reasonableness of their proposals. After receiving the proposal, the Commission holds hearings in which the reasonableness of the utility's proposal is evaluated, with input from Staff and Intervenors.

... PNM carries the burden of proof to show that its proposed resource is the most cost effective choice among feasible alternatives to serve PNM's resource needs.<sup>5</sup>

The Commission affirmed the Hearing Examiner's Recommendation Order in Case No. 15-00205-UT. In 2016, PNM re-filed and then again withdrew its second CCN for a gas plant. The Commission adopted the Hearing Examiner's decision and stated in Case No. 16-00105-UT, unequivocally: "The Commission reiterates that PNM bears the burden of demonstrating that its proposed resource choice is the most cost effective resource among feasible alternatives." This bedrock consumer protection principle has been articulated and reiterated by the PRC repeatedly: 15-00312-UT, 3/19/2018, Recommended Decision, p. 104, unanimous approval in Final Order, 4/11/2018. Also See, Case No. 18-00261-UT, Recommended Decision 3/18/2019, unanimously adopted by Final Order, 3/27/2019. ("Utilities also need to show that the proposed project is the most cost effective alternative to satisfy utilities' needs.")

It is imperative that PNM consider whether re-investment in PVNGS Units 1 & 2 are

<sup>&</sup>lt;sup>4</sup> *Id.*, pp. 10-11. The "most cost effective" test in utility CCN cases addressed by the Commission in the *OLE* case was subsequently incorporated into the Commission's IRP Rules, 17.7.3.6, 17.7.3.7.I and 17.7.3.9.G(1) NMAC.

<sup>&</sup>lt;sup>5</sup> *Id.*, p. 12.

<sup>&</sup>lt;sup>6</sup> Case No. 15-00205-UT, Final Order, May 18, 2016.

<sup>&</sup>lt;sup>7</sup> Case No. 16-00105-UT, Final Order, May 24, 2017, ¶ 10.

"the most cost effective resource among feasible alternatives" and assess the (decommissioning) risks of said investments when it decides to commit hundreds of millions of additional dollars to the plant, for which, presumably, it will seek cost recovery from ratepayers in the future.

12. <u>Cost Causation</u>: PNM seeks to insulate the company from *any* future cost recovery disallowance for undepreciated assets and decommissioning costs beyond 2023/2024 – meaning PNM will request full ratepayer recovery for any clean up costs even though it should have recouped these expenses beforehand when the plant was "used and useful" and there is no blanket post abandonment cost reimbursement entitlement because it offends the generally accepted regulatory principle of "cost causation." Under cost causation, "all approved rates [must] reflect to some degree the costs actually caused by the customer who must pay them." *KN Energy, Inc. v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992).

# V. Background

13. In 1977, the PRC granted PNM a certificate of public convenience and necessity (CCN) to participate in the Arizona Nuclear Power Project, known as the Palo Verde Nuclear

<sup>&</sup>lt;sup>8</sup> "[I]t is not clear that full recovery of the ... undepreciated costs ... and a return on those costs until the costs are fully recovered would be reasonable. The existing meters would no longer be used to provide service and would therefore no longer be used and useful. PNM is correct that the used and useful concept in New Mexico is flexible and that it does not *per se* require the total exclusion of the costs of non-used and useful plant from rates. But the ratemaking treatment for such plant must still fairly balance the interests of investors and ratepayers. In the San Juan abandonment case, for example, the Commission approved a stipulation that provided for PNM's recovery of 50% of the undepreciated costs of the two San Juan units it proposed for abandonment -- not the 100% recovery PNM seeks here. See Final Order, Case No. 13-00390-UT, 12/16/2015, pp. 21-22." Case No. 15-00312-UT, Recommended Decision, 3/19/2018, p. 73, unanimously approved Final Order, 4/11/2018.

<sup>&</sup>lt;sup>9</sup> The cost of the facility extension or upgrade shall be paid by the customer and included in rates if approved by the Commission within the time period that the asset is used. 15-00312-UT, Recommended Decision, p.76, unanimously approved by Final Order, 4/11/2018. ("Ratemaking treatment outside of a rate case is disfavored as being contrary to the policy of piecemeal ratemaking.")

Generation Station. PNM was granted authority to participate in PV as a tenant in common and allowed to own, operate, and maintain an undivided 10.2% interest in each of three PV units (PV Units 1, 2, and 3) together with common facilities incident to the Units. Case No. 1216, Findings of Fact and Order, Decretal ¶ C (2-8-77). 15-00261-UT, Corrected Recommended Decision, 8/15/2016, p. 73.<sup>10</sup>

- 14. Because the capital costs of the Palo Verde investment turned out to be so high and in order to avoid "rate shock" PNM had to financially restructure their investments in Units 1, 2, and 3. The PRC allowed PV Units 1 & 2 to serve PNM customers, but at a reduced cost and sale/leaseback transactions were created to levelize the rate impact of PV; the PRC issued an order granting abandonment and decertification of PNM's interest in PV Unit 3. <sup>11</sup> *Id*, at pp. 75-76.
- 15. In 1985, the PRC authorized PNM to sell and lease back substantially all of its 10.2% undivided ownership interest in PV Unit 1 to third party investors, who simultaneously leased the assets back to PNM. Case No. 1995, Order (11-27-85). *Id.* In 1986, in Phase I of Case No. 2019, the PRC authorized PNM to sell its 10.2% undivided ownership interest in PV Unit 2 and the remainder of its PV Unit 1 interests to third party investors, who simultaneously leased these assets back to PNM. Case No. 2019, Phase I, Order (7-8-86). *Id.*

<sup>10</sup> For a comprehensive discussion of the history of PNM's investment in Palo Verde Nuclear Generating Station see 15-00261-UT, Corrected Recommended Decision, 8/15/2016, "XV. Palo Verde capacity", pp. 72-111.

PNM was allowed to bring its 10.2% ownership interest in Unit 3 back into rates in Case 13-00390-UT, Final Order, 12/16/2015. However, "[t]he PRC adopted the parties' agreement that ratepayers only bear responsibility for decommissioning costs for PV Unit 3 in proportion to the amount of time the plant is used for retail purposes. The PRC ruled that if the Unit operates to the 2047 expiration of its renewed license, PNM's retail customers will be responsible for about one-half of PNM's 10.2% share of the Unit's decommissioning costs. Certification of Stipulation 25 (11-16-15)." *Id.*, at pp. 105-106.

- 16. PNM has purchased back all of the leases from the leaseholders, except the two leases that are at issue in the Joint Petition herein. PNM has sought cost recovery for all the lease purchases in rates.
- 17. Importantly, "[u]nder the sale/leaseback agreements, PNM is responsible for paying decommissioning costs of PV in proportion to its Generation Entitlement Share even if PNM relinquishes its interests in the Leased Assets. Tr. (6-28-16) 4131 (Eden). Therefore, PNM is already obligated for decommissioning PV units 1 and 2 whether it continues its participation with the PV units. Exh. 12 to Van Winkle Direct." *Id.*, at p. 84.
- 18. NM PRC Case No.15-002621-UT: Before PNM sought to purchase the last set of leases, the subject of Case No. 15-00261-UT, "PNM performed no Strategist runs, economic modeling, or financial analysis to determine whether purchasing the PV Unit 2 interests was its most cost-effective resource option with respect to the PV Unit 2 interests." *Id.*, at pp. 90-91. PNM conducted no price comparison or appraisal, no evaluation relative to the market, no financial analysis of lease extension, no financial analysis of lease extension versus acquisition, no historical evaluation (to determine for instance "the costs of and any gains or losses from the sale and leaseback" and no evidence that the negotiation was conducted pursuant to a fair market value process and at arm's length. *Id.*, at pp. 101-104.
- 19. The PRC has repeatedly preserved its full ratemaking authority "over all issues of ratemaking treatment for the lease payments, the costs of and any gains or losses from the sale and leaseback concerning said Facilities, including the authority to disallow any or all of the lease expenses and transaction costs on a used-and-useful basis, on the basis of imprudency in the cost of the Facilities, or on any other lawful basis, and the approval of the Lease Transactions

<sup>&</sup>lt;sup>12</sup> Final Order in Case No. 2019, p. 12, ¶16.

granted by this Order is contingent on the Commission's retention of such full authority[.]" Final Order in Case No. 1995, at p. 7, ¶ 24. See also, Final Order in Case No. 2019, Phase I, approving the sale/leasebacks for PV Unit 2, p. 8, ¶ 3 and p. 12, ¶ 16. 15-00261-UT, Corrected Recommended Decision, 8/15/2016, pp. 84-85.

- 20. PNM has acknowledged that the PRC retained authority to disallow costs related to the PV Assets on the basis of imprudence. PNM admits that it has the burden of proof to show that its decision to repurchase leases is prudent. *Id.*, at p. 89.
- 21. PNM's decisions to extend the five PV leases and purchase the 64.1 MW PV were imprudent because it failed to show by a preponderance of the evidence that it (i) reasonably examined alternative courses of action and that its decisions to extend the leases and purchase the 64.1 MW were its most cost effective resource choices; and (ii) adequately and timely notified the PRC of its decisions regarding PV Units 1 and 2. *Id*.
- 22. "It was always contemplated that PNM would reacquire the fee ownership of its certificated interests in Palo Verde in accordance with the terms of the leases." Eden Rebuttal 7. PNM did not consider the possibility that the PRC would not include the price for the lease purchase in its rate base. PNM's "Ms. Eden admitted that PNM's strategy was to retain PV capacity. ... Consistent with this strategy, PNM extended the terms of five PV Unit 1 and 2 leases representing 114 MW for eight years." *Id.*, at p. 90. The 114 MW are the subject of the Petition herein.

<sup>&</sup>lt;sup>13</sup> Because PNM has not shown that it considered alternatives to retaining control of PV capacity when the initial leases expired, its decisions to extend the five leases and purchase the 64.1 MW were not prudent. *Id.*, at p. 99.

23. "While PNM denies that it purchased the 64.1 MW to increase its rate base and earnings, PNM told its Board of Directors that it was a factor, demonstrated by the statement in the December 2013 Memo from PNM Management that "[p]urchasing the other three Unit 2 leases will increase rate base, allowing shareholders to earn a return on the assets." Exh. DVW-14 to Van Winkle Direct.

In fact, PNM had an incentive to retain its interests in PV Units 1 and 2. PNM will continue to be responsible for decommissioning costs of PV Units 1 and 2 even if PNM had relinquished its rights to the units and the lessors/investors sold the units to a third party. PNM would also be responsible for the capital project costs on projects pending at the date of the lease expiration. Eden 5-25-16 Supp. 21." *Id.*, at pp. 91-92.

24. With the purchase of the leases PNM will transfer the cost risk of non-depreciated capital improvements and decommissioning expenses from PNM to ratepayers. As the Hearing Examiner articulated:

PNM had a substantial financial incentive to buy the 64.1 MW. Mr. Ortiz conceded that if PNM did not buy the beneficial interest in this capacity, there was some risk that PNM, not ratepayers, would bear the cost of non-depreciated capital improvements and decommissioning expenses associated with the capacity after expiration of the leases. Tr. (6-27-16) 3835-3836, 3845-3846.

Although Mr. Ortiz downplayed the risk that PNM, rather than ratepayers, would pay for non-depreciated capital improvements and decommissioning costs, this issue has not been decided. In Case No. 1995, the Hearing Examiner found that:

It is the policy of the commission that ratepayers should not be responsible for decommissioning costs associated with Palo Verde Nuclear Generating Station Unit 1 associated with that portion of the life of such unit during which it is not owned or leased.

Recommended Decision 19, ¶ 19.

PNM never obtained approval to recover from New Mexico retail ratepayers, decommissioning costs of PV plant for any period that PV plant is not used to serve New Mexico customers. In Cases Nos. 1995 and 2019, the PRC clearly preserved its authority to rule on this issue.

The Stipulation approved in the San Juan Case is consistent with the policy expressed in Case No. 1995. The PRC adopted the parties' agreement that ratepayers only bear responsibility for decommissioning costs for PV Unit 3 in proportion to the amount of time the plant is used for retail purposes. The PRC ruled that if the Unit operates to the 2047 expiration of its renewed license, PNM's retail customers will be responsible for about one-half of PNM's 10.2% share of the Unit's decommissioning costs. Certification of Stipulation 25 (11-16-15).

*Id.*, pp. 104-105.

- 25. As of 2016, ratepayers have paid PNM and PNM has made lease payments of \$2.083 billion to PVNGS leaseholders. Exh. JAP-3, p.5 to Peters 5-25-16 Supp. *Id.*, at p. 107. Because the plant is in Arizona, not one job has been created in New Mexico, as a result of ratepayers' payments.
- 26. In the Commission's Final Order Partially Adopting Corrected Recommended Decision it made the following findings:
  - a. PNM failed to demonstrate that the [nuclear PV] lease extensions and lease reacquisitions were the least cost alternatives. p. 32, ¶101
  - b. [T]he Commission also rejects the notion that PNM's arguments that its various letters and presentations to the Commission somehow relieved PNM of its obligations with respect to the renewal and repurchase of the leases. p.33, ¶ 105
  - c. PNM failed to provide sufficient information or analysis concerning the terms and circumstances of those [PV lease] purchases something an appraisal by a disinterested third party professional may have provided to justify its asserted FMV and purchase price. p.34, ¶ 107
  - d. [T]his inquiry does not end the inquiry as the need for a remedy that protects ratepayers from the effect of PNM's imprudent actions must be addressed. The Commission cannot ignore the apparent role of PNM's self-interest in expanding rate base to benefit shareholders and shifting the burden of decommissioning responsibility from its own shareholders to ratepayers in its decision to move forward on the PV leases without due consideration of alternatives. The Commission notes that a result of if this failure is that PNM's actions in renewing and reacquiring the

leases have exposed ratepayers to costs associated with decommissioning responsibilities that likely would not have been incurred had an alternative resource other than nuclear been selected. p.38, ¶ 117

# VI. Factual Basis for an Investigation into PNM's Planned Purchase of PVNGS 114 MW of capacity

- 27. PNM has identified that its "most cost-effective portfolio is provided in Table 128 on page 198 [of the Appendix in PNM's 2017-2036 Integrated Resource Plan]" Case No., 17-00174-UT, Consolidated Response of Public Service Company of New Mexico to Protests to 2017 Integrated Resource Plan, 8/11/2017, p. 8. The resource portfolio on page 198 includes the purchase of PVNGS Unit 1 (104 MW) in 2023 and PVNGS Unit 2 (10 MW) in 2024. See, Testimony and Exhibits of David Van Winkle, attached and incorporated herein.
- 28. In PNM's 2017-2036 Integrated Resource Plan PNM's "Four-Year Action Plan" on p. 147, it states that among "[t]he actions PNM will need to complete in the next four years" is to "retain the Palo Verde leased capacity." It is clear in PNM's IRP that it plans to purchase the Palo Verde leased capacity.
- 29. Although the Hearing Examiner found "valid criticisms" with PNM's presentation of evidence she found that: "PNM has met its burden of proof in this matter on the requirements necessary for Commission acceptance of PNM's 2017 Integrated Resource Plan." Case No., 17-00174-UT, 10/26/2018, pp. 131-132. 14 The Hearing Examiner cautioned PNM about selection of its future resources:

PNM has now been put on notice to be prepared to thoroughly address the important public concern issues specifically relating to the impacts of any resource selection in future PNM resource selection cases.

<sup>&</sup>lt;sup>14</sup> The Commission adopted the Hearing Examiner's Recommended Decision on December 19, 2018, with slight modifications, irrelevant to these points.

Acceptance of PNM's 2017 Plan should not be interpreted as Commission approval of any action contained in the plan. PNM continues to have the legal burdens for any and all legal requirements for any action it pursues in a future case, after all, this is PNM's 2017 IRP, not the Commission's plan. Further, Commission acceptance of the PNM's 2017 IRP should not be inferred to mean that the Commission endorses, prefers, or supports any of PNM's proposed actions in its own plan.

*Id.*, pp.132-133.

30. PNM has provided NO evidence that purchasing PVNGS leases in 2023 and 2024 is cost effective for ratepayers. Actually there IS evidence that purchasing PVNGS leases in 2023 and 2024 will result in MORE costs for ratepayers.

Table 128 is the alleged MCEP as defined by PNM. It includes:

- a. retirement of SJGS in 2022;
- b. retirement of FCPP in 2031;
- c. includes the *option* to purchase the 114 MW of leases that expire in 2023-4;
- d. limits solar to 250MW of additions (excluding data center) and increases the cost of solar capital by 35% in the 20 year period; 15 and

e. Limits wind to 200MW of additions (excluding data center). 16

Table 129 is the exact same as table 128, *except* that PVNGS 114 MW leases are not available for resource additions.

- Q. (By Nanasi) Could you tell us how much Table 129, without the purchase of Palo Verde nuclear generating station leases are, then Table 128, with it included? A. (By PNM's O'Connell) I get 6,165,654.
- Q. So Table 129 is more cost-effective for ratepayers by 6 million and change; is that correct?
- A. The NPV of Table 129 is lower than the NPV of Table 128.
- Q. By \$6 million and change?
- A. Correct.<sup>17</sup>

Therefore, as Strategist<sup>®</sup> clearly evidences, it is more cost effective for ratepayers, by more than \$6 million to exclude the purchase of nuclear leases. Additionally, contrary to the

<sup>&</sup>lt;sup>15</sup> Case No. 17-00174-UT, 6/6/2018, TR., O'Connell, p. 410.

 $<sup>^{16}</sup>$  M

<sup>&</sup>lt;sup>17</sup> Case No. 17-00174-UT, 6/6/2018, TR., O'Connell, p. 426; Also see, Testimony and Exhibits of David Van Winkle, pp. 6-8.

public interest, the purchase of PVNGS leases is not only to make more profits for PNM shareholders (given the high cost of nuclear generated electricity<sup>18</sup> and its associated ongoing capital expenditures,<sup>19</sup> which PNM earns a return on equity of 9.575%<sup>20</sup>) if PNM is permitted to acquire the nuclear interests to serve customers in 2023 and 2024, PNM shifts the risks and environmental liabilities, including decommissioning cost risk,<sup>21</sup> likely to be in the hundreds of millions of dollars, from PNM's shareholders to ratepayers.

31. PNM will communicate to the lessors of the 104MW of PVNGS Unit 1 by **January 15, 2020,** only eight months away, whether they will buy the capacity or not. If PNM purchases the capacity it will extend the use of this facility by PNM for ratepayers from 2023 to ~2046, 23 years, at a cost of \$1300 million.

PNM will communicate to the lessors of the 10 MW of PVNGS Unit 2 by January 15, 2021 whether PNM will purchase the capacity or not. If PNM buys the capacity it will extend the use of this facility by PNM for ratepayers from 2024 to ~2047, 23 years, at a cost of \$120 million.

From PNM's most recent 10K report:<sup>22</sup>

Following procedures set forth in the PVNGS leases, PNM notified each of the four lessors under the Unit 1 leases and the lessor under the one Unit 2 lease containing the Maximum Option Period provision that it would elect to renew those leases for the Maximum Option Period on the expiration date of the original leases. PNM and each of

<sup>19</sup> From 1993-2013 ongoing capital expenditures for PVNGS were \$3Billion. 15-00261-UT, NEE Exhibit 20, Van Winkle, Exhibit DVW-20.

<sup>&</sup>lt;sup>18</sup> Testimony and Exhibits of David Van Winkle, p.9.

 <sup>&</sup>lt;sup>20</sup> 16-00276-UT, Revised Order Partially Adopting Certification of Stipulation, 1/10/2018.
 <sup>21</sup> PRC Staff Testimony, David Rode, testified that actual decommissioning costs are 79% higher than PNM has estimated for PVNGS. Testimony and Exhibits of David Van Winkle, p. 8, fn. 10.
 <sup>22</sup> Form 10-K, Annual Report Pursuant To Section 13 Or 15(d) Of The Securities Exchange Act Of 1934, For the Fiscal Year Ended December 31, 2018. PNM Resources Inc. filed this 10-K on Mar 01, 2019, p. B-52. <a href="http://otp.investis.com/clients/us/pnm\_resources/SEC/sec-show.aspx?Type=html&FilingId=13267713&CIK=0001108426&Index=10000">http://otp.investis.com/clients/us/pnm\_resources/SEC/sec-show.aspx?Type=html&FilingId=13267713&CIK=0001108426&Index=10000</a>

those lessors entered into amendments to each of the leases setting forth the terms and conditions that would implement the extension of the term of the leases through the agreed upon Maximum Option Period. The four Unit 1 leases now expire on January 15, 2023 and the one Unit 2 lease now expires on January 15, 2024. The annual payments during the renewal periods aggregate \$16.5 million for the PVNGS Unit 1 leases and \$1.6 million for the Unit 2 lease, which are included in the table of future lease payments shown below.

The terms of each of the extended leases do not provide for additional renewal options beyond their currently scheduled expiration dates. PNM has the option to purchase the assets underlying each of the extended leases at their fair market values or to return the lease interests to the lessors on the expiration dates. Under the terms of the extended leases, PNM has until January 15, 2020 for the Unit 1 leases and January 15, 2021 for the Unit 2 lease to provide notices to the lessors of PNM's intent to exercise the purchase options or to return the leased assets to the lessors. PNM's elections are independent for each lease and are irrevocable. In the proceeding addressing PNM's 2017 IRP (Note 17), PNM agreed to promptly notify the NMPRC of a decision to extend the Unit 1 or 2 leases, or to exercise its option to purchase the leased assets at fair market value upon the expiration of leases. If PNM elects to exercise its purchase option under any of the leases, the leases provide an appraisal process to determine fair market value. If PNM elects to return the assets underlying the extended leases, PNM will retain certain obligations related to PNVGS, including costs to decommissioning the facility. PNM would seek to recover its undepreciated investments at the end of the PVNGS leases as well as any future obligations related to PNM's leased capacity from NM retail customers. Any transfer of the assets underlying the leases will be required to comply with NRC licensing requirements.

# (Emphasis supplied.)

Given that PNM has to make its decision whether to purchase the PV leases or not (though it appears from its IRP that it has already made the decision – without even knowing the price, just as it has in PNM's prior imprudent lease purchase situation, Case No. 15-00261-UT) before January 15, 2020, it is incumbent that the PRC exercise its obligation to investigate in order to protect the public interest.<sup>23</sup> Has PNM conducted an appraisal of the cost of PV

<sup>&</sup>lt;sup>23</sup> In a recent Commission Order, Order Initiating Proceeding on PNM's December 31, 2018 Verified Compliance Filing Concerning Continued Use of and Abandonment of San Juan Generating Station, 1/30/2019, the Commission discussed a similar situation where PNM had already announced its plan of action (in 17-00174-UT) and taken steps in pursuit of that goal and the Commission affirmatively initiated a proceeding in a timely fashion to protect the public

114MW? What is the estimated appraisal cost? How does that cost, if it exists, compare with the purchase of other resources? Does PNM need this baseload power? Is the 114 MW consistent with other system needs? PNM's plans and action with respect to its procurement of the PV leases incontrovertibly relate to and affect its rates and charges to its customers. The Commission should know the answer to these questions and others *before* PNM makes an "irrevocable" decision.

While PNM agrees to promptly notify the PRC of its decision, the Commission should investigate PNM's lease purchase beforehand to avoid the (now habitual<sup>25</sup>) situation that PNM forces: backing the Commission and the public into a corner by investing in and extending the life of resources, without prior proper cost and alternatives analysis, and then crying "wolf" that any cost disallowance or decertification would impair the company's credit rating and cause "serious harm to PNM." Additionally, intervenors and the public will have an opportunity to

interest. At p. 7: "The duty to initiate an abandonment proceeding is incumbent upon the Commission, especially where PNM's action may have already negated a significant portion of the Commission's abandonment authority – the practical ability to deny PNM's abandonment; notwithstanding PNM's inclusion of a reservation regarding its need for Commission authorization for abandonment." And at pp. 11 and 12: "The Commission recognizes the need for early action was a significant motivating factor. ... This potentially legitimizes the concerns raised by NEE that PNM may be seeking to gain an advantage and box in parties that oppose PNM's choices with a time limit."

<sup>&</sup>lt;sup>24</sup> "PNM has an obligation to use due diligence when it spends ratepayers' money." Case No. 17-00129-UT, Recommended Decision, 10/17/2017, p. 61.

In Case No. 15-00261-UT the Hearing Examiner and the Commission found that PNM purchased the PV leases and extended other leases without *any* financial analysis. The Commission found PNM's purchase and lease extension to be "imprudent". In Case No. 16-00276-UT, the Hearing Examiner and the Commission found that PNM invested in and extended the life of the Four Corners Power Plant without any contemporaneous financial analysis; the Hearing Examiners found that PNM's actions with respect to FCPP was "imprudent," as did the Commission initially, and then reversed itself, but then held: "The issue of PNM's prudence in continuing its participation in FCPP shall be deferred until PNM's next rate case." NM PRC Case No. 16-00276-UT, 1/10/2018, p.35, B.

<sup>&</sup>lt;sup>26</sup> Case No. 15-00261-UT, Corrected Recommended Decision, 8/15/2016, pp. 109-110. At p. 110: "whether the Commission should consider the financial effects of a prudence disallowance

propose alternatives to PNM's PV lease purchases if the PRC commences an investigation promptly.

- 32. 19.7% of New Mexican households live at the poverty level (\$24,860 for a family of four per year). 27 27% of children live below the poverty line. 28 This places New Mexico second highest in overall poverty and highest in child poverty nationwide. Native American and Latinos make up the majority of the people facing poverty. 29 A map by Inside Energy using census and federal energy data shows that energy expenditures breach 20-50 percent of household incomes in several parts of New Mexico, disproportionately hurting the poor. 30 People of color and senior citizens are disproportionally affected by increased energy costs due to their relatively low household incomes. If higher cost nuclear-generated electricity is authorized, many of our most vulnerable residents will be forced to make hard economic choices (i.e., whether to buy food, medicine, or keep the electricity on) that likely will cause long-term hardship.
- 33. On March 22, 2019, New Mexico Governor Lujan Grisham signed Senate Bill 489, called the Energy Transition Act ("ETA"), into law. The bill raises New Mexico's renewable energy portfolio standard to 50 percent renewable energy by 2030. According to

is questionable. A used and useful disallowance may be appropriate even if a utility is prudent. And under the circumstances of a used and useful test, the Commission should balance the interests of shareholders and ratepayers and determine just and reasonable rates that are in the public interest. In addressing the interests, the Commission may appropriately consider financial effects on the utility. A disallowance due to imprudence is, however, quite different; and to consider financial harm in determining a disallowance founded on the utility being imprudent would, in essence, be rewarding a utility for its imprudent acts."

https://talkpoverty.org/state-year-report/new-mexico-2018-report/

<sup>&</sup>lt;sup>29</sup> *Id*.

https://www.theatlantic.com/business/archive/2016/06/energy-poverty-low-income-households/486197/

PNM's 2017 IRP, p. 143, in 2017 PNM only had 11.5% renewable energy in its portfolio. In 2025, PNM projected to have only 21.4% renewables in its MCEP portfolio. So, PNM will be required to make a "material" reassessment in order to meet the newer higher renewable standard. Governor Lujan Grisham described the changes in resource type required by ETA to be "fundamental". Given that the ETA will have a "material" impact on PNM's resource procurement type, and consistent with §17.7.3.10 NMAC, specific analysis is needed to determine what renewable resources could or should meet the 114MW needed capacity and if the purchase of Palo Verde leases is the best or worst resource<sup>31</sup> to be included in the attainment of that need. *Also See*, Testimony and Exhibits of David Van Winkle, pp. 9-13.

34. PNM issued a Request for Proposal (RFP) in 2017 that garnered 345 bid results,<sup>32</sup> yet PNM is withholding the RFP result analysis. Given that Commission precedent unequivocally requires that only prudently incurred resources be recovered in rates<sup>33</sup> and that the way prudence is determined is to consider the preferred resource against other resource alternatives and evaluate their costs on a consistent and comparable basis<sup>34</sup> it becomes critical to

<sup>&</sup>lt;sup>31</sup> "The Commission found that it has the authority to examine alternatives to utility proposals to satisfy needs identified by a utility, that there may be various solutions for such needs and that it would not be in the public interest for the Commission to grant a CCN for a proposed project which might meet a utility's needs but is the *worst among a range of alternatives*." Recommended Decision, p. 49, 166 P.U.R. 4<sup>th</sup> at 337. (Emphasis supplied.)

<sup>32</sup> PNM's Verified Compliance Filing Pursuant to Paragraph 19 of the Modified Stipulation,

<sup>12/31/2018,</sup> p. 7, fn. 7; Also see, Testimony and Exhibits of David Van Winkle, pp. 10-11.

To be included in rates, expenditures on utility plant must (1) have been prudently incurred; and (2) be used and useful. Case No. 2146, Part II, Final Order 53; Accounting for Pub. Utils., § 4.03. The prudent investment theory provides that ratepayers are not to be charged for negligent, wasteful or improvident expenditures, or for the cost of management decisions which are not made in good faith. "In other words, ratepayers are not expected to pay for management's lack of honesty or sound business judgment." Case No. 2146, Part II, Final Order 50 (4-5-89).

Case No.15-00261-UT, Corrected Recommended Decision, 8/15/2016, pp. 89-99; Also see,

Case No.17-00129-UT, Recommended Decision, 10/17/2017. (At p. 61: "PNM witness Barnard said that when PNM procures a resource, the cost of which will be recovered through rates, PNM has a duty to negotiate the lowest reasonable cost and to select the most cost-effective alternative

obtain the RFP bid results and make this comparison well in advance of the PV lease purchase January 15, 2020 notification deadline. *Also See*, Testimony and Exhibits of David Van Winkle, pp. 10-12.

- 35. Despite the clear trend toward higher temperature and more arid conditions across the Southwest,<sup>35</sup> PNM continues to invest in resources that use vast amounts of water. PNM acknowledges the risk of drought "which could potentially affect the plants' water supplies" in its 10K to the Securities and Exchange Commission it hasn't shared those economic and environmental vulnerabilities with the Commission.<sup>36</sup> PVNGS consumes more water than any other resource. According to PNM's 2014 IRP, Palo Verde consumes 768 gallons of water per MWh.<sup>37</sup>
- 36. PNM is likely to oppose this Joint Petition for Investigation and argue that this PVNGS issue can be addressed in the San Juan Generating Station ("SJGS") abandonment proceeding, Case No. 19-00018-UT, which is now on hold in the New Mexico Supreme Court. But that proceeding will likely address many issues particular to SJGS and may take more than six months to resolve. It would also not be sufficient for this important matter to be lumped into

among comparable alternatives.")

The existence of a significant trend in climate toward warmer temperatures across the southwestern U.S. has been noted by many authors, looking at different specific areas or periods of time (e.g. New Mexico Environment Department 2005; Watkins et al. 2006; Gutzler and Robbins 2011; Melillo et al. 2014). A statewide average of observed annual-average temperature, derived from weather stations across New Mexico, was found to have risen about 2°F over the past half century. (New Mexico Universities Working Group, 2015). In New Mexico Climate Division 6, which includes the eastern slopes of the Sandia Mountains, the temperature in the spring and summer months has risen somewhat faster, and is now about 3°F warmer than in 1970. Drought indices are sensitive to both temperature and precipitation, and indicate that droughts and surface dryness are increasing in magnitude due to warming temperatures (Gutzler and Robbins, 2010). The established trend of more severe droughts and surface dryness is expected to continue at increasing rates for the foreseeable future.

36 PNM 10K, Mar 01, 2019, (p. A-19).

<sup>&</sup>lt;sup>37</sup> PNM's 2014 IRP, p. 23, Table 2-M "Water intensity for existing generation, Palo Verde: 768 gallons/MWh."

a rate case, expected to be filed at the *end of 2019*, when PNM has stated that notification to its first lessor must happen by January 15, 2020.

This request for investigation is particularly focused on whether it is prudent for PNM to purchase the 114 MW PVNGS leases and expect recovery from ratepayers given the purchase cost and liability risks versus the availability of other less costly resources without similar risk exposure. Time is of the essence: in order to accommodate the due process protections of PNM, Petitioners and other intervenors, and in order for the Hearing Examiner to review the evidence and argument by the parties and the PRC's adequate deliberation and review, a formal expedited investigation should be docketed, a Hearing Examiner assigned and a procedural schedule established in time for a decision to be rendered on the prudence of PNM's planned purchase of the PVNGS expiring leases.

## VII. Public Interest

37. The attached affidavit of Navajo Nation Council delegate, Daniel E. Tso, and the testimony of Larry King urge the PRC to investigate PNM's purchase of the PV leases in order to fully consider the environmental, health and financial consequences of PNM's actions. Mr. King opposes further investment in nuclear generated electricity because it has caused serious harm to his people<sup>38</sup> and the land he loves. Agency decisionmakers must identify and understand the environmental effects of proposed actions, and they must inform the public of those effects

Studies have shown since the 1950s that the Navajo have had significantly higher rates for some cancers than the national average, associated with contamination from the uranium mines and the exposure of workers to radiation. Chris Shuey, MPH <u>Uranium Exposure and Public Health in New Mexico and the Navajo Nation: A Literature Summary Southwest Research and Information Center</u>, 02.27.07, rev.10.14.08; *Pinderhughes, Raquel (1996), "The Impact of Race on Environmental Quality: An Empirical and Theoretical Discussion", Sociological Perspectives, 39 (2): 231–48, <u>doi:10.2307/1389310</u>, <u>JSTOR 1389310</u>; Also see, Testimony of Larry King, attached and incorporated herein.* 

so that it may "play a role in both the decisionmaking process and the implementation of [the agency's] decision." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989)

On March 19, 2018, the Hearing Examiner rejected PNM's AMI project finding that there was "no net public benefit, <sup>39</sup> no evaluation of alternatives <sup>40</sup> and [it was not in] the public interest. <sup>41</sup>" Case No. 15-00312-UT, pp. 81-84; pp.102-104; p.110. (The Commission unanimously approved of the Recommended Decision on April 11, 2018.) The Commission's decision in the AMI case and its "public interest" scope is consistent with *Sierra Club v. FERC*, 867 F.3d 1357, 1368 (D.C. Cir. 2017) where the Court held that FERC failed to meet the "public benefit" test because the agency did not factor health and environmental risks into resource procurement decisions and without the agency's consideration of these environmental consequences it cannot be said that the agency engaged in "reasoned decision-making." The Court found that the failure to review the climate-change impacts was "significant enough to undermine informed public comment and informed decision-making."

38. Indeed, it is not only the Joint Petitioners that believe that there are most cost effective and more environmentally friendly energy resources than nuclear, the overwhelming majority of New Mexican voters believe that we should procure as much of our electricity from wind and solar as possible. 1080 voters in New Mexico were polled from January 15-17, 2019,

At p. 104: "The failure to evaluate alternatives prevents the Commission from determining that PNM's plan is the most cost effective option of feasible alternatives."

<sup>&</sup>lt;sup>39</sup> Citing public opposition and the need for public input "before coming to the Commission for approval of a project." p.81

The Hearing Examiner addressed health concerns and suggested consideration of an opt-out provision to address those concerns. (At p. 109: "Such accommodations may be desirable to minimize health risks to customers and address the needs and preferences of PNM's customers.) The Hearing Examiner also included the impact of jobs as a public interest consideration. Pp.110-111. ("One of the reasons for this slow growth is that New Mexico has not provided the employment opportunities found elsewhere. Crane (7/15/2016). p. 27.")

by the polling firm, Change Research, see Exhibit A, attached and incorporated herein. The following highlights key findings from the survey:

- New Mexicans want to maximize renewable energy production and use. 81% of the people polled agree with the statement that "we should produce electricity from wind and solar as much as possible."
- A significant majority of voters believe that New Mexico should produce electricity using 100% renewable energy sources, such as solar and wind, in the future. Nearly three-fourths (72%) agree with this while just 25% disagree.
- Voters believe that renewable energy is a high-tech industry that generates high paying jobs and that it is less expensive to produce electricity from renewable energy such as wind and solar than from fossil fuels such as coal, oil, and natural gas.

Public opposition, insufficient details regarding procurement, and shielding shareholders from risk to a preferred utility course of procurement have been cited as factors for PRC consideration when evaluating the acquisition of a particular resource. 13-00390-UT, Certification of Stipulation, 4/8/2015, pp. 65-110;<sup>42</sup> Case No. 15-00312-UT, Recommended

<sup>&</sup>lt;sup>42</sup> "Fundamental to the Commission's review ... is whether the evidence is sufficient to determine whether the [procurement] will produce net benefits for the public." (At p. 67.) "It is not known what terms the parties are currently negotiating and what costs PNM will likely be incurring. (At p. 80.) "With the forthcoming expiration of the current [] agreement, the source, provider, cost, terms and conditions ... are unknown." (At p. 81.) "The stipulating parties ask the Commission to issue a CCN ... for capacity without providing the Commission with the terms of the agreement on which PNM intends to acquire the capacity." (At p. 87.) "The [] agreement has not been finalized..." *Id.* "It is difficult to identify and measure the risks ... given the limited information PNM has presented in regard to these issues." (At p. 88.) "[U]ltimately, the Commission's decision on the reasonableness of the acquisition should be informed with the finally-agreed upon terms." (At p. 89.) "As PNM acquires increasing shares, it will be increasingly reluctant to retire a plant even as it grows uneconomic. PNM's increasing ownership and responsibility for [PVNGS] may pressure PNM to continue to act as the owner of last resort, absorbing [] shares to protect its investment even if the plant has become uneconomic – in a version of the 'too big to fail' syndrome." (At pp. 90-91.)

Decision, 3/19/2018, p. 79, unanimously approved by Final Order, 4/11/2018.<sup>43</sup>

#### VIII. Conclusion

- 39. PNM must only re-up its PVNGS investment if it is cost effective and the quality is equivalent to those resources that minimize environmental impacts. NMSA 1978, § 62-17-10; §17.7.3.6, §17.7.3.9.F (1), and §17.7.3.9.G (1) (2) (3) NMAC. It can only be prudent and reasonable for PNM's decision-making process going forward with respect to the PVNGS lease purchases to include contemporaneous financial analysis (a cost-benefit analysis, including Strategist® or other economic modeling), risk evaluation, and an alternative resource evaluation, consistent with the reasonable standard of care in the utility industry and regulatory principles and practices.
- 40. For the reasons set forth herein, the relief requested in this Joint Petition for Investigation is necessary to protect Petitioners' interests as PNM customers and New Mexicans and for the Commission to carry out its statutory duties under NMSA §§ 8-8-4. A and B(7) and (10), 62-6-4.A, 62-3-3.H, 62-8-1, 62-8-7 and 62-10-1, and the Commissions' rules, to protect the interest.
- 41. The factual allegations in this Joint Petition for Investigation are true and correct to the best of the belief of Petitioners as indicated by the signature of the respective lawyer, below.

WHERERFORE, on behalf of the Joint Petitioners, we humbly request this regulatory agency open a docket to investigate, pursue discovery, and continue regulation to determine if

<sup>&</sup>lt;sup>43</sup> "The Commission should consider the extent of any public opposition, the extent to which PNM's justifications are not clearly demonstrated, and the extent to which any uncertainties will impact the public interest and create unreasonable risks for ratepayers."

PNM's planned purchase of the 114 MW leases at Palo Verde Nuclear Generating Station is a net public benefit, the most cost effective resource among feasible alternatives, and is in the public interest. Time is of the essence because PNM has until January 15, 2020 to make an economic and environmental decision that will have significant financial consequences. If it is not prudent for PNM to purchase PV leases then PNM needs to hear from this body unequivocally, and if this body decides that the PV lease purchases are consistent with the public interest, then PNM needs to be advised accordingly. Given the current available information, the overwhelming consensus is that it is imprudent for PNM to purchase the PV leases on behalf of ratepayers because of high nuclear-generated electricity costs, precarious cost risk exposure: including, but not exclusively, radioactive waste build up (for which the "mature" nuclear industry still has no answer), extremely costly ongoing capital expenditures, the most consumptive water usage (in a time of severe drought), little to no social benefit (i.e., jobs), and significant decommissioning risk. The PRC has a Constitutionally mandated obligation to act to protect the public and investigate if PNM's purchase of Palo Verde leases for ratepayers is prudent and will result in rates that are just, reasonable and in the public interest. An investigation will determine if a prudent investment can be made in the lease purchases of PVNGS Units 1 & 2, and protect against an after-the-fact imprudent finding(s) that will not result in unnecessary costs to ratepayers.

Public protection is at the heart of the Joint Petitioners request for investigation.

In accordance with Commission rules and applicable law, Petitioners respectfully request that the Commission:

(i) cause a copy of this Joint Petition to be served on PNM accompanied by a notice from the Commission in accordance with its Rules calling on PNM to answer this Joint Petition; (ii) upon PNM's filing of its answer to the Joint Petition, find that the Commission has jurisdiction over the matters addressed herein and that probable cause exists that the Commission pursue discovery; and

(iii) set further proceedings on the Joint Petition for Investigation that permit discovery by Petitioners and all interested parties and designate a Hearing Examiner to preside over the matters addressed in the Joint Petition with an expedited procedural schedule to address PNM's constrained time limitations for notification to the PVNGS Unit 1 lessors by January 15, 2020; and

(iv) require PNM to provide an appraisal of the PV lease purchase by an unrelated professional, a transparent cost/benefit analysis, including in-depth narrative explanation, and alternatives assessment that the company must use to determine that failure to purchase the PV leases would adversely affects PNM's ability to provide retail electric service to the public at just and reasonable rates.

Respectfully submitted this Earth Day, April, 22, 2019.

Daniel Earnest Tso, New Energy Economy, Citizens for Fair Rates and the Environment, Climate Change Leadership Institute, Concerned Citizens of Wagon Mound & Mora County, Dooda (NO) Desert Rock, Earth Care, Food & Water Watch, Hispano Round Table de Nuevo México, Honor our Pueblo Existence, Honor the Earth, Indigenous Life Ways, Inc., Institute for Local Self-Reliance, League of United Latin American Citizens (LULAC), Los Jardines Institute, Multicultural Alliance for a Safe Environment Physicians for Social Responsibility-NM, Renewable Taos, Retake Our Democracy, Rio Arriba Concerned Citizens, Securing Economic and Energy Democracy, Southwest Indigenous Uranium Forum, Student Advocacy Union NM, Taos United/Taoseños Unidos, Tewa Women United and Wild Earth Guardians.

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To: Interested Parties

From: Stephen Clermont, Change Research

Date: January 23, 2019

**RE: New Mexico Poll Results** 

Registered voters in New Mexico - Democrats, Republicans, and those who Decline to State - believe in the potential of a renewable energy future. They believe that not only is this achievable, but that it will cost less than the fossil fuel driven status quo. When it comes to PNM closing the San Juan plant, both Michelle Lujan Grisham and Steve Pearce voters believe shareholders should be responsible for transition costs and not ratepayers. The appetite for corporate bailouts does not exist among any segment of the electorate. The following highlights key findings from the survey:

New Mexicans want to maximize renewable energy production and use. More than
four-fifths agree with the statement that "we should produce electricity from wind and
solar as much as possible." Democrats, Republicans, and everyone in between concur
with this, as do voters in all parts of the state, all ethnicities, and all educational
backgrounds. Belief in renewable energy unites nearly every voter for Governor Michelle
Lujan Grisham and many of Steve Pearce's.

**Table 1. Agreement with the Statement:**"We should produce electricity from wind and solar as much as possible"

			Net				Net
Agree Disagree Agree					Agree	Disagree	e Agree
Registered Voters	81	17	+64	Registered Voters		17	+64
Democrats	95	3	+92	Central	89	8	+81
Republicans	60	38	+22	North	75	25	+50
Decline to State (DTS)	84	14	+70	Southeast	69	27	+42
				Southwest	85	14	+71
Lujan Grisham Voters	98	1	+97				
Pearce Voters	61	37	+24	Anglo Non College Men	73	26	+47
				Anglo Non College Women	77	20	+57
Hispanic	85	12	+73	Anglo College Men	81	19	+62
Anglo	80	19	+61	Anglo College Women	91	9	+82

Polling was conducted online from January 15th-17th, 2019. Using its Bias Correct Engine to attain a sample reflective of registered voters in each region, Change Research polled 1080 voters in New Mexico. Post-stratification weights were made on age, race/ethnicity, gender, education, party and 2016 vote to reflect the distribution of voters within the state.

A significant majority of voters believe that New Mexico should produce electricity
using 100% renewable energy sources, such as solar and wind, in the future. Nearly
three-fourths (72%) agree with this while just 25% disagree. Lujan Grisham voters almost
universally agree while Pearce's voters are divided. Outside of a segment of Republicans,
New Mexico's voters see a future powered solely from renewable energy.

Table 2. Agreement with the Statement:
"In the future, we should produce electricity using 100% renewable energy sources, such as solar and wind"

			Net				Net
	Agree	Disagre	e Agree		Agree	Disagree	Agree
Registered Voters	72	25	÷47	Registered Voters		25	+47
Democrats	. 92	5	+87	Central	82	15	+67
Republicans	42	56	-14	North	66	31	+35
Decline to State (DTS)	70	27	+43	Southeast	53	44	+9
				Southwest	76	22	+54
Lujan Grisham Voters	96	3	+93				
Pearce Voters	41	56	-15	Anglo Non College Men	59	41	+18
				Anglo Non College Women	72	25	+47
Hispanic	80	15	+65	Anglo College Men	60	39	+21
Anglo	68	30	+38	Anglo College Women		20	+60

• Voters believe that renewable energy is a high-tech industry that generates high paying jobs and that it is less expensive to produce electricity from renewable energy such as wind and solar than from fossil fuels such as coal, oil, and natural gas. When given a choice, a majority (52%) see renewable energy as a high-tech industry. Just 28% believe that the transition to renewable energy will cost the state jobs and raise energy costs and taxes. A near majority (49%) see renewable energy as less expensive than fossil fuels while 28% think the opposite. Michelle Lujan Grisham voters see renewable energy as a high tech industry and less expensive than fossil fuels while Pearce voters think the opposite.

Table 3. Which Do You Agree with More

	All Voters	MLG Voters	Pearce Voters
Renewable energy is a high-tech industry that generates high-paying jobs			
		80	16
The transition to renewable energy will cost us jobs and raise our energy costs and			
taxes	28	4	65
Not Sure	19	16	18
It is less expensive to produce electricity from renewable energy such as wind and			
solar than from fossil fuels such as coal, oil, and natural gas	49	75	16
It is less expensive to produce electricity from fossil fuels such as coal, oil, and natural			
gas than from renewable energy such as wind and solar	28	6	60
Not Sure	23	19	24

 Voters believe that PNM shareholders should be responsible for any losses that come from closing the coal-fired power plant in San Juan, NOT ratepayers. Few voters -Democrats, Republicans, or those who decline to state a party affiliation - believe ratepayers should be responsible. When Donald Trump said in 2016 that his reforms are opposed by some of the nation's most powerful special interests because "these interests have rigged our political and economic system for their exclusive benefit," Republicans have come to oppose deals that put corporate interests ahead of theirs. On the issue of the San Juan plant, Republicans and Pearce voters don't believe ratepayers should pay to close the plant and they favor either holding shareholders accountable or letting the Public Regulation Commission (PRC) decide what ratepayers should pay PNM. They don't believe PNM should be allowed to charge ratepayers the full amount of future profits the corporation says they will lose by closing the plant early. Democrats and Michelle Lujan Grisham voters strongly oppose charging ratepayers and believe shareholders should bear the responsibility of the company's decisions. Of the 59% who think shareholders should be responsible for losses, a fifth (20%) would reconsider if PNM agreed to set a percentage of energy they must produce from renewable sources like solar and wind in exchange for charging ratepayers \$300 million to make up for lost expected profits from closing the plant. The remaining 80% do not change their minds.

Table 4. Decisions about San Juan Plant

	All				MLG	Pearce
	Voters	Dom	COB	DTC		
Ratepayers should not pay PNM to close their coal plants		Dem	GOP	פוט	Voters	voters
because they have been profiting from it for years and could						
have made a decision to transition to less polluting sources						
years ago	59	73	32	69	79	36
We should continue to allow companies like PNM to operate						
coal fired plants		6	54	21	4	54
Ratepayers should pay PNM to close the plant without PNM						
suffering financial losses at all	4	6	1	2	5	1
Not Sure	13	14	12	8	12	8
PNM shareholders should be responsible for any lost expected profits PNM suffers because of decisions made by						
management of the utility		59	59	60	61	60
The New Mexico Public Regulation Commission should decide						
after a hearing what amount, if any, ratepayers should pay PNM	20	21	18	20	22	17
PNM should be allowed to charge ratepayers for the \$300 million they would make if they kept the plant open instead of						
closing it		2	2	2	1	3
Not sure	19	18	21	18	16	20

- A solid majority (58%) holds PNM responsible for the severance pay and long-term health insurance for the 400 employees who will lose their job when the San Juan plant closes. Only 18% believe that workers should not be given transition compensation and health insurance except for what is required under law or contract. Even fewer think workers should be given severance pay and long-term health insurance and PNM and ratepayers should split the costs (8%), workers should be given severance pay and long-term health insurance and PNM ratepayers should pay for this (3%), or believe workers should be given severance pay and long-term health insurance and New Mexican taxpayers should pay for this (1%). Majorities of Michelle Lujan Grisham (64%) and Pearce (50%) voters believe that PNM should provide these workers with severance pay and long-term health insurance.
- Voters have little sympathy for PNM, do not support the legislature allowing them to
  pass costs on to ratepayers, and believe the company should be doing more to make
  New Mexico a leader in solar energy. Both Michelle Lujan Grisham and Steve Pearce
  voters reject arguments made on PNM's behalf and agree with ones made by those
  challenging them.

**Table 5. Agreement with Statements** 

J. S.			
	All	MLG	Pearce
Milhigh of all and a little and	Voters	Voters	Voters
Which of these statements do you agree with more	:		
PNM management and shareholders didn't share the 650% increase in			
profits with ratepayers when they were making money from the coal			
plant. Ratepayers shouldn't bail out Wall St. shareholders. PNM keeps			
their profits but outsources their losses. Legislators should not vote to			
increase my bill to protect PNM's profits.	72	74	75
PNM is a good New Mexico company and they are doing what's right			
by closing the coal plant. We should not penalize them, Legislators			
have to take care of businesses in our state and we all have to do our			
part to protect jobs and make the air cleaner.		12	7
Not Sure	18	14	18
	,0	1-4	10
In 2017 New Mexico ranked 49th poorest in the country and 50th in			
child poverty. Which of these statements do you agree with more:			
Legislators should not make the poorest people in New Mexico pay for			
PNM's bad business decisions. If PNM can no longer make money on			
the coal plant after 2022 then that's the risk of doing business.	71	71	74
PNM is closing the plant in San Juan early and we need to transition to			
clean energy. If we want PNM to make this transition, they will need to			
nave the ability to invest in it. We all have to share a small part of this for			
a cleaner future.	14	18	9
Not Sure	15	11	16
			-

Table 5. Agreement with Statements (Continued)

,			
	All	MLG	Pearce
	Voters	Voters	Voters
New Mexico has the second highest solar energy potential of any			
state. PNM has 3% solar in their energy portfolio. Which of these			
statements do you agree with more:	:		
We live in a state with the Sun Zia on our flag and more than 300 days			
of sunshine. PNM is dragging their feet on solar. This is hurting us	;		
economically because New Mexico should already be a leader in solar	•		
energy.	. 68	87	46
PNM is moving in the right direction and it takes time for utilities to			
change from their dependence on traditional fossil fuels. We've done			
well with our past energy and PNM is adjusting appropriately to the			
changing times.	. 17	8	31
Not Sure	14	5	23

### BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF AN INVESTIGATION	)
INTO THE PUBLIC SERVICE COMPANY	)
OF NEW MEXICO'S PURCHASE OF	)
PALO VERDE NUCLEAR GENERATING STATION	Case No. 19UT
UNIT 1 & 2 LEASES	)
AND IT'S FINANCIAL IMPACT	)
ON RATEPAYERS	)

### DIRECT TESTIMONY AND EXHIBITS

OF

DAVID VAN WINKLE

ON BEHALF OF

NEW ENERGY ECONOMY

**APRIL 8, 2019** 

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23		

1	Background and Experience

- 2 Q. Please state your name and business address.
- 3 A. My name is David Van Winkle, and my business address is 343 E. Alameda St., Santa Fe,
- 4 NM 87501.
- 5 Q. On whose behalf are you testifying in this proceeding?
- 6 A. I am testifying on behalf of New Energy Economy ("NEE").
- 7 Q. Please summarize your educational and business background.
- 8 A. I have a Master's degree in Electrical Engineering from Southern Methodist University
- 9 and Bachelor of Science degree in Industrial Engineering from Iowa State University. I
- worked for Texas Instruments for 30 years leading large business units and analyzing complex
- business and technical challenges. For the past ten years, I have reviewed and analyzed
- multiple energy generation resource plans of New Mexico utilities and have led the
- 13 development of strategies for various organizations including the Sierra Club, New Energy
- 14 Economy and the Coalition for Clean Affordable Energy (CCAE). I have considerable
- 15 experience in analyzing complex cost and financial issues and providing solutions for
- business problems. I have created operational system models for multiple utilities that utilize
- multiple years of customer hourly energy usage data and actual resource output, including,
- among other things, actual solar hourly output. These system models have given me
- 19 significant insight into utility system generation issues, specifically as they relate to meeting
- 20 changing customer loads. Additionally, over the years, I have participated in extensive
- 21 discussions with various energy providers and clients concerning New Mexico electric utility
- 22 resource issues. After a decade of work in this area, I have developed technical knowledge
- 23 about resource options for meeting utility loads which have given me the ability to provide

- 1 innovative solutions to complex problems, such as solving the Environmental Protection
- 2 Agency ("EPA") puzzle in the Public Service Company of New Mexico ("PNM") San Juan
- 3 retirement challenge.
- 4 I have previously testified before the New Mexico Public Regulation Commission in six
- 5 dockets as an expert witness:
- a) On behalf of CCAE in 14-00121-UT, an El Paso Electric Renewable Energy Purchase
   Plan;
- b) On behalf of New Energy Economy in 13-00390-UT, PNM's San Juan abandonment
   and replacement power case;
- c) On behalf of CCAE in 15-00083-UT, a SPS case requesting PPA approval for 140
   MW of solar;<sup>1</sup>
- d) I provided an expert affidavit for New Energy Economy in 14-00332-UT, PNM's rate case, which was relied upon for the case's dismissal;
- e) I testified for NEE in 16-00105-UT, wherein PNM sought a Certificate of
  Convenience & Necessity (CCN) for a \$100 million 80 MW gas plant and pipeline.
- 16 (New Energy Economy was the only party that opposed PNM's Application.) After I
  17 filed opposition testimony, PNM withdrew its Application.
- 18 f) I testified for New Energy Economy in 15-00261-UT, PNM's rate case where my
  19 analysis and testimony significantly influenced the outcome of the case and benefitted
  20 ratepayers.

<sup>&</sup>lt;sup>1</sup> On September 22, 2015, the Hearing Examiner issued his opinion and recommended approval of SPS' PPA for 140 MWs, citing my testimony, in part, for his recommended decision.

1	g)	I testified for New Energy Economy in 16-002/6-UT, PNM's rate case, where the two
2		Hearing Examiners and the PRC (4-1) found PNM's investment in and life extension
3		of the coal-fired Four Corners Power Plant was imprudent; capital expenditures at its
4		coal-fired San Juan Generating Station ("SJGS") (\$36M) were without basis; and 3)
5		PNM's "pro rata" allocation of the stipulated rate increase embedded in its rate design
6		violated the anti-discriminatory policy of the PRC. Despite the Hearing Examiners
7		recommended decision and the PRC's initial decision (December 20, 2017), and
8		without any evidence, the PRC reversed its own Order and on January 10, 2018 (3-2)
9		adopted the Revised Stipulation with modifications to still exclude the \$36M of SJGS
10		capital expenditures and raised rates (but reduced the overall impact by \$4.4 million
11		deferred the "imprudent finding" until PNM's next rate case, and reversed the
12		discriminatory rate impact finding. (PRC Order, January 17, 2018)
13	h)	I testified for New Energy Economy in 17-00174-UT, in the Protest of PNM's
14		Integrated Resource Plan case.
15	A resu	me of my relevant educational and business experience is attached as Exhibit DVW-01.
16		
17	Q. Ple	ase explain the situation that has led to this complaint.
18	A. PN	M will communicate to the owner of 104MW of Palo Verde Nuclear Generating Station
19	(PV) t	mit 1 by January 15, 2020 whether PNM will buy the capacity or not. If PNM buys the
20	capaci	ty, PNM will be able to use this facility for ratepayers from 2023 to 2045, <sup>2</sup> 22 years.
21	"PNM	agreed to promptly notify the NMPRC of a decision" regarding the purchase of its
22	expirii	ng lease but doesn't plan to make this decision with PRC approval or review. If PNM

<sup>&</sup>lt;sup>2</sup> PNM 2017 IRP Appendices, page 85.

- buys this capacity, it is committing ratepayers to pay approximately \$1300 million<sup>3</sup> in rates
- 2 over the 22 year period.

3

- 4 PNM will communicate to the owner of 10 MW PV unit 2 by January 15, 2021 whether PNM
- 5 will buy the capacity or not. If PNM buys the capacity, PNM will be able to use of this facility
- 6 for ratepayers from 2024 to 2046, 422 years. "PNM agreed to promptly notify the NMPRC of
- 7 a decision" regarding the purchase of its expiring lease but doesn't plan to make this decision
- 8 with PRC approval or review. If PNM buys this capacity, it is committing ratepayers to pay
- 9 approximately \$120 million<sup>5</sup> in rates over the 22 year period.
- 10 The following quote<sup>6</sup> from PNMR's 10K report of March 1, 2019, page B-52 confirms these
- actions that PNM plans.

Following procedures set forth in the PVNGS leases, PNM notified each of the 12 four lessors under the Unit 1 leases and the lessor under the one Unit 2 lease 13 containing the Maximum Option Period provision that it would elect to renew 14 those leases for the Maximum Option Period on the expiration date of the 15 original leases. PNM and each of those lessors entered into amendments to 16 each of the leases setting forth the terms and conditions that would implement 17 18 the extension of the term of the leases through the agreed upon Maximum Option Period. The four Unit 1 leases now expire on January 15, 2023 and the 19 one Unit 2 lease now expires on January 15, 2024. The annual payments during 20 the renewal periods aggregate \$16.5 million for the PVNGS Unit 1 leases and 21 \$1.6 million for the Unit 2 lease, which are included in the table of future lease 22 payments shown below. 23

 $<sup>^3</sup>$  13-00390-UT, October 2015, PNM Exhibit BR October 20-1, valuation = \$1118/kW, average cost = \$0.07/kWh.

<sup>&</sup>lt;sup>4</sup> PNM 2017 IRP Appendices, page 85.

<sup>&</sup>lt;sup>5</sup> 13-00390-UT, October 2015, PNM Exhibit BR October 20-1, valuation = \$1118/kW, average cost = \$0.07/kWh.

<sup>&</sup>lt;sup>6</sup> Exhibit DVW-02, PNMR 10K report of March 1, 2019, page B-52.

The terms of each of the extended leases do not provide for additional renewal 1 2 options beyond their currently scheduled expiration dates. PNM has the option 3 to purchase the assets underlying each of the extended leases at their fair market values or to return the lease interests to the lessors on the expiration 4 dates. Under the terms of the extended leases, PNM has until January 15, 2020 5 6 for the Unit 1 leases and January 15, 2021 for the Unit 2 lease to provide 7 notices to the lessors of PNM's intent to exercise the purchase options or to return the leased assets to the lessors. PNM's elections are independent for 8 9 each lease and are irrevocable. In the proceeding addressing PNM's 2017 IRP (Note 17), PNM agreed to promptly notify the NMPRC of a decision to extend 10 the Unit 1 or 2 leases, or to exercise its option to purchase the leased assets at 11 12 fair market value upon the expiration of leases. If PNM elects to exercise its purchase option under any of the leases, the leases provide an appraisal process 13 14 to determine fair market value. If PNM elects to return the assets underlying the extended leases, PNM will retain certain obligations related to PNVGS, 15 including costs to decommissioning the facility. PNM would seek to recover its 16 17 undepreciated investments at the end of the PVNGS leases as well as any 18 future obligations related to PNM's leased capacity from NM retail customers. Any transfer of the assets underlying the leases will be required to comply with 19 20 NRC licensing requirements. 21 In other words, PNM believes that it can purchase the PV expiring leases without PRC 22 approval. A reasonable business person would expect that the PRC should be required to 23 review and approve an acquisition that would commit ratepayers to costs of \$1.3 Billion over 24 25 the 22 year period. Q. PNM's 2017 IRP report included analysis concerning the cost effectiveness of 26 acquiring these 114 MW at PV. Please provide a summary of the IRP concerning this 27 28 issue. A. PNM's IRP included Strategist® results that showed that not acquiring the 114MW was 29 more cost effective than buying this capacity. The Most Cost Effective Portfolio (MCEP) is 30

- summarized in PNM's 2017 IRP, Table 128 of the Appendices. This portfolio includes an
- 2 assumption that PNM acquires the 114MW in PV. In Table 129,8 this portfolio makes the
- 3 same assumptions throughout, except that it excludes the 114MW from use by PNM.
- 4 The Risk Portfolio Average NPV results for the two portfolios are:
- 5 Table 128, with 114MW at PV \$6,967,515,573
- 6 Table 129, without 114MW at PV \$6,961.349.919
- 7 Difference \$ 6,165,654
- 8 Thus, the portfolio without the 114 MW from PV is \$6M less costly than the portfolio with
- 9 the 114MW included in the resource plan. A difference of only \$6M out of a total NPV of
- nearly \$7B is not significant enough to exclude the 114 MW without other factors considered.
- 11 It is significant in the fact that the choice between buying and not buying the 114MW does
- deserve more in-depth analysis.
- 13 Q. What other factors should be considered in this decision that were known at the time
- 14 of the PNM 2017 IRP?
- 15 A. By permitting the nuclear interests to be purchased to serve customers in 2023 and
- 16 2024, PNM shifts the risks and environmental liabilities from PNM's shareholders to
- 17 ratepayers. PNM's shareholders are currently responsible for future environmental liabilities
- and decommissioning costs associated with Palo Verde leases. If the Commission allows these

<sup>&</sup>lt;sup>7</sup> Exhibit DVW-03 PNM 2017 IRP Appendices, page 198.

<sup>&</sup>lt;sup>8</sup> Exhibit DVW-04, PNM 2017 IRP Appendices, page 199.

<sup>&</sup>lt;sup>9</sup> Patrick O'Connell testified on June 5, 2018 in 17-00174-UT, TR p.194, lines 15-20, that Average Risk NPV is the metric used by PNM to rank portfolios.

- 1 resources to serve New Mexico ratepayers, ratepayers will assume the decommissioning risks
- 2 and liabilities of these investments. PNM has estimated decommissioning cost for the 114MW
- to be \$79M, but Rode has testified for PRC Staff that the U.S. average cost of
- 4 decommissioning for nuclear facilities is much higher and would make the 114MW
- 5 decommissioning costs equal to \$139M. While PNM is not able to walk away from future
- decommissioning liabilities at the end of the 2023/2024 lease terms, <sup>11</sup> the ratepayers'
- 7 obligations would have ended. This is not inconsequential. Ratepayers could walk away
- 8 without stranded assets, no vulnerability for catastrophic accidents or equipment failure, no
- 9 future decommissioning costs or other ties to an aging nuclear plant.
- 10 PVNGS consumes more water than any other resource. According to PNM's 2014
- 11 IRP, Palo Verde consumes 768 gallons of water per MWh. 12

<sup>12</sup> PNM's 2014 IRP, p. 23, Table 2-M "Water intensity for existing generation, Palo Verde: 768 gallons/MWh."

<sup>15-00261-</sup>UT, NEE Exhibit #20, Testimony of David Van Winkle, pp. 24-25. ("The decommissioning risk is particularly significant. PNM testimony in 13-00390-UT from Horn on 10/31/14 (page 13, line 1) states that PNM's share of decommissioning PV3 is \$91.1 million. This equates to \$680/kW. In 13-00390-UT, PRC Staff testimony of 8/29/14 from David Rode, he states "Exhibit DCR-18 contains the decommissioning cost experience for these thirteen [nuclear] facilities. The average cost, in 2014 dollars, is \$1217/kW". (PRC Staff Testimony, David Rode, pages 38-41 & DCR-18 document.) This is 79% higher than PNM's estimate. At the average cost of \$1217/kW, the 64 MW of Palo Verde 2 decommissioning would cost \$78 million or \$34 million more than PNM's estimate.") Also See, 15-00261-UT, Corrected Recommended Decision, 8/15/16, pp. 104-105.

<sup>11 15-00261-</sup>UT, Corrected Recommended Decision, 8/15/16, p. 84 ("Under the sale/leaseback agreements, PNM is responsible for paying decommissioning costs of PV in proportion to its Generation Entitlement Share even if PNM relinquishes its interests in the Leased Assets. Tr. (6-28-16) 4131 (Eden). Therefore, PNM is already obligated for decommissioning PV units 1 and 2 whether it continues its participation with the PV units. Exh. 12 to Van Winkle Direct.") And at p. 92: ("In fact, PNM had an incentive to retain its interests in PV Units 1 and 2. PNM will continue to be responsible for decommissioning costs of PV Units 1 and 2 even if PNM had relinquished its rights to the units and the lessors/investors sold the units to a third party.") This is also true with the PV units 1 and 2 leases herein that PNM seeks to purchase in 2023 and 2024 respectively.

### 1 Q. Please provide the known prices of PNM's solar and wind versus nuclear:

Capacity	Resource Type	Cost	Case	Date
50 MW	solar	\$44.63/MWh	17-00129-UT	11/2017
30 MW	solar	\$39.85/MWh	16-00191-UT	9/2016
50 MW	solar	\$29.98/MWh	18-00009-UT	3/2018
50 MW	wind	\$28.12/MWh	18-00009-UT	3/2018
166 MW	wind	\$27.92/MWh	18-00009-UT	3/2018
134 MW	nuclear	\$70.00/MWh	13-00390-UT	12/2015

3 NM PRC has approved PNM's acquisition of wind and solar which has been proven to be

4 lower cost per MWh than nuclear.

### Q. What is the PRC rule that concerns material changes to an IRP?

A. This is the appropriate section of the PRC rules.

17.7.3.10 OBLIGATION TO NOTIFY OF MATERIAL CHANGES AND UPDATE ACTION PLAN: The utility shall promptly notify the commission and participants of material events that would have the effect of changing the results of the utility's IRP had those events been recognized when the IRP was developed. As part of this notification, the utility shall explain how this event(s) has changed the action plan.

- 1 Q. Have material changes occurred since the PNM 2017 IRP that should be considered
- 2 when making the decision to initiate a formal investigation?
- 3 A. Yes. First, the PNM 2017 IRP assumed that the New Mexico Renewable Portfolio
- 4 Standard (RPS) would remain constant at 20%. The Energy Transition Act (ETA) of 2019
- 5 substantially increased the renewable energy requirement. The new requirement is 40% by
- 6 2025, 50% by 2030, and 80% by 2040. The statute requirements for 2025 and 2030 will
- 7 definitely require that PNM change it's energy mix dramatically from what is in PNM's 2017
- 8 IRP. PNM will need to add about 500 MW above the IRP of renewable energy by 2030 to
- 9 achieve the new RPS requirements. 13 These resources will generate this amount of energy:

10		2025 GWh	2030 GWh
11	Renewable energy above IRP	1162	1646
12	PV 114 MW	899	899

13

- 14 As shown in the table the amount of new renewable energy required to meet the new RPS
- requirements is significantly more than the energy output of the 114 MW from PV. (I am
- using the analysis to demonstrate the magnitude of the RPS change. I am not stating that the
- 17 renewable energy is a direct replacement for Palo Verde.)
- Second, since the 2017 IRP, PNM received 345 bids<sup>14</sup> in January 2018 from the
- October 2017 Request for Proposal (RFP) for all types of resources. These results are likely to
- 20 have substantially different costs than the many IRP assumptions. Costs for wind, solar, and

<sup>&</sup>lt;sup>13</sup> Exhibit DVW-05.

<sup>&</sup>lt;sup>14</sup> PNM's Verified Compliance Filing Pursuant to Paragraph 19 of the Modified Stipulation, 12/31/2018, p. 7, fn. 7.

- storage are likely to be significantly less than those costs assumed in 2017. Some of the 2017
- 2 IRP costs are from 2014 RFPs. 15
- A real example of changes in costs due to RFP results will illustrate how significant
- 4 changes in resource mix can occur. In Colorado, Public Service Company of Colorado
- 5 (PSCO) is in the process of retiring two coal units with capacity of 660MW. When PSCO
- 6 received RFP bids for replacement, they received bids that are very significantly below
- 7 PNM's 2017 IRP cost estimates. The plan approved by the Colorado PUC, a.k.a. Colorado
- 8 Energy Plan, now includes 707MW of solar, 1131MW of wind, 275MW of storage, and
- 9 383MW of gas. 16,17
- This is a high-level overview of the bids and projects received in response to the
- 11 RFP:<sup>18</sup>

<sup>&</sup>lt;sup>15</sup> Patrick O'Connell testimony, 17-00174-UT, TR 6/5/18, page 219, lines 3-18.

<sup>&</sup>lt;sup>16</sup> Colorado PUC docket 16A-0396E, Decision C18-0761, August 27, 2018, page 42.

<sup>&</sup>lt;sup>17</sup> Colorado PUC docket 16A-0396E, Appendix B PUBLIC VERSION, page 5 o 9, Portfolio 6 https://www.vox.com/energy-and-environment/2018/1/16/16895594/colorado-renewable-energy-future

### RFP Responses by Technology

					Median Bid	
	# of		# of	Project	Price or	Pricing
Generation Technology	Bids	Bid MW	Projects	MW	Equivalent	Units
Combustion Turbine/IC Engines	30	7,141	13	2,466	\$ 4.80	\$/kW-mo
Combustion Turbine with Battery Storage	7	804	3	476	6.20	\$/kW-mo
Gas-Fired Combined Cycles	2	451	2	451		\$/kW-mo
Stand-alone Battery Storage	28	2,143	21	1,614	11.30	\$/kW-mo
Compressed Air Energy Storage	1	317	1	317		\$/kW-mo
Wind	96	42,278	42	17,380	\$ 18.10	\$/MWh
Wind and Solar	5	2,612	4	2,162	19.90	\$/MWh
Wind with Battery Storage	11	5,700	8	5,097	21.00	\$/MWh
Solar (PV)	152	29,710	75	13,435	29.50	\$/MWh
Wind and Solar and Battery Storage	7	4,048	7	4,048	30.60	\$/MWh
Solar (PV) with Battery Storage	87	16,725	59	10,813	36.00	\$/MWh
IC Engine with Solar	1	5	1	5		\$/MWh
Waste Heat	2	21	1	11		\$/MWh
Biomass	1	9	1	9		\$/MWh
Total	430	111,963	238	58,283		

2

1

- Third, PNM assumed that the acquisition cost of the 114 MW of PV would be
- 4 \$1306/kW. 19 The appraised value is unknown and the actual acquisition price is unknown by
- 5 the public.

6

- 7 Q. What remedy are you requesting in this complaint?
- 8 A. PNM should be required to demonstrate through a docketed case that buying or not buying
- 9 the 114 MW of PV is the correct decision. This docket should include:
- a) updated renewable energy resources required to meet RPS requirements as defined in the
- 11 ETA
- b) up-to-date costs for wind, solar, storage and gas resources.
- c) updated acquisition cost of the 114MW at PV; this includes an appraisal and any negotiated
- 14 cost update.

<sup>&</sup>lt;sup>19</sup> Patrick O'Connell testimony, 17-00174-UT, TR 6/5/18, page 360, lines 2-6.

- 1 d) updated data on decommissioning costs.
- e) Strategist<sup>®</sup> runs, other financial modeling, system modeling, and other analyses that are
- 3 needed to provide a comprehensive consistent and comparable analysis of alternatives with
- 4 the 114MW and without the 114MW at PV with the changes in items a,b,c,d above.
- 6 Q. Does this conclude your testimony?
- 7 A. Yes, it does.

8

5

9

### David Van Winkle, Educational and Professional Summary

Address:

New Energy Economy

343 East Alameda Avenue

Santa Fe, NM 87501

Position:

Consultant, Board Chair

Education:

B.S. Industrial Engineering, with distinction, Iowa State University, 1973

M.S.E. Electrical Engineering, with distinction, Southern Methodist University,

1989

Employment: New Energy Economy, 2012-2019

Board Member 2012-19 Treasurer 2012-2016 Consultant 2012-2019 Vice Chair, 2015-2016 Board Chair 2016-19

Technical/Financial lead, PNM negotiations on SJGS retirement options,

2012-2013

Co-Solved EPA puzzle, that resulted in retiring units 2&3 solution.

Coalition for Clean Affordable Energy, 2009-2015

Chair, Energy Supply Issues, 2010-2015

Sierra Club, Rio Grande Chapter 2008-2012

Chair, Energy Issues, 2009-2012

Lead Representative to New Mexico Environment Department Technical Working Group on Regional Haze attainment for San Juan Generating Station, 2012

Representative to PNM Renewable Energy Purchase Plan negotiations, August 2009-January 2010

Sierra Club, Dallas Group, 2005-2006

Chair, Energy Issues, 2005-2006

Representative to UN Conference on Climate Change, Montreal, 2005

Van Winkle Group, 2001-2005

CEO, 2001-2005

Consulting to high tech firms, such as Broadcom

Consulting to venture capital, STARTech Early Ventures

Texas Instruments, Inc., Semiconductor Products, 1973-2001

Director, Burr-Brown Acquisition (\$6B), 2000-2001
Director, Data Converter Products, 1997-2000
Worldwide Operations Manager, Analog Products, 1995-1997
Vice President TI Asia, Analog/Logic Products, 1991-1995
Worldwide Logic Products Department Manager, 1985-1991
Department Manager, Military Products, 1983-1985
Operations Manager, Logic Products, 1978-1983
Architected worldwide TI planning system, still used today
Financial Planning Manager, Logic Products, 1975-1978
Financial Planning Analyst, Logic Products, 1973-1975

Testimony:

New Mexico Public Regulation Commission, case 14-00121-UT, El Paso Electric Renewable Energy Purchase Plan, expert witness for Coalition for Clean Affordable Energy, July-August 2014.

New Mexico Public Regulation Commission case 13-00390-UT, PNM San Juan abandonment, expert witness for New Energy Economy, August 2014-October 2015

New Mexico Public Regulation Commission, case 14-00332-UT, PNM rate case, affidavit that the Hearing Examiner relied upon to dismiss the case, April 2015

New Mexico Public Regulation Commission, case 15-00083-UT, Southwestern Public Service request for PPA for 140 MW solar, expert witness for Coalition for Clean Affordable Energy, July-August 2015.

New Mexico Public Regulation Commission, case 15-00261-UT, PNM rate case, December 2015-September 2016

New Mexico Public Regulation Commission, case 16-00105-UT, PNM CCN case for 80MW gas plant, April-October 2016

New Mexico Public Regulation Commission, case 16-00276-UT, PNM rate case, December 2016-2017

New Mexico Public Regulation Commission, case 17-00174-UT, PNM Integrated Resource Plan protest, 2017-2018

Santa Fe City Council – 2009-2014 Santa Fe County Commission – 2009-2014 Albuquerque City Council – 2014-15 New Mexico Senate Committees – 2018-19



### UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM 10-K

### ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year Ended December 31, 2018

		Names of Registrants, State of Incorpora Address Of Principal Executive Offices a		mber_		I.R.S. Employer Identification No.
001-		PNM Resources, Inc. (A New Mexico Corporation) 414 Silver Avc. SW Albuquerque, New Mexico 87102-3289 (505) 241-2700				85-0468296
001-		Public Service Company of New Mexico (A New Mexico Corporation) 414 Silver Ave. SW Albuquerque, New Mexico 87102-3289 (505) 241-2700				85-0019030
002-		Texas-New Mexico Power Company (A Texas Corporation) 577 N. Garden Ridge Blvd. Lewisville, Texas 75067 (972) 420-4189				75-0204070
		Securities Registered Pursuar	t To Section 12(b)	Of The Act:		
Registrant PNM Resources, In	c.	<u>Title of Each Class</u> Common Stock, no par valu	e			Name of Each Exchange on Which Registered New York Stock Exchange
		Securities Registered Pursuan		Of The Act		Ton Tone Broad Exchange
Registrant			With House Over Avenue 1908	f Each Class		
	pany of New Mexico		100	Cumulative Preferred Stor	sk	
			DANCE SALES OF ST. O.	without sinking fund)		
Indicate by	check mark whether each registrant	is a well-known seasoned issuer, as defined in R	Rule 405 of the Secur	rities Act.		
Pì	NM Resources, Inc. ("PNMR")		YES 🗹		NO _	
Pu	ablic Service Company of New Mo	exico ("PNM")	YES _		NO ✓	
Te	exas-New Mexico Power Compan	y ("TNMP")	YES _		NO <u>✓</u>	
Indicate by	check mark if each registrant is not r	equired to file reports pursuant to Section 13 or	Section 15(d) of the	Act.		
Pì	NMR		YES		мо ✓	
Pì	NM		YES _		NO <u>✓</u>	
T	NMP		YES <u>✓</u>		NO _	

# PNM RESOURCES, INC. AND SUBSIDIARIES PUBLIC SERVICE COMPANY OF NEW MEXICO AND SUBSIDIARIES TEXAS-NEW MEXICO POWER COMPANY AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS December 31, 2018, 2017 and 2016

the Navajo Nation right-of-way lease was \$6.9 million, which included amounts due under the Consumer Price Index adjustment. All of the Company's leases, as well as the Navajo Nation rights-of-way agreement, are accounted for as operating leases. See New Accounting Pronouncements in Note 1.

The PVNGS leases were entered into in 1985 and 1986 and initially were scheduled to expire on January 15, 2015 for the four Unit 1 leases and January 15, 2016 for the four Unit 2 leases. Each of the leases provided PNM with an option to purchase the leased assets at fair market value at the end of the leases, but PNM did not have a fixed price purchase option. In addition, the leases provided PNM with options to renew the leases at fixed rates set forth in each of the leases for two years beyond the termination of the original lease terms. The option periods on certain leases could be further extended for up to an additional six years (the "Maximum Option Period") if the appraised remaining useful lives and fair value of the leased assets were greater than parameters set forth in the leases. The rental payments during the fixed renewal option periods are 50% of the amounts during the original terms of the leases. Gross annual lease payments aggregated \$33.0 million for the Unit 1 leases and \$23.7 million for the Unit 2 leases prior to the expiration of their original terms.

Following procedures set forth in the PVNGS leases, PNM notified each of the four lessors under the Unit 1 leases and the lessor under the one Unit 2 lease containing the Maximum Option Period provision that it would elect to renew those leases for the Maximum Option Period on the expiration date of the original leases. PNM and each of those lessors entered into amendments to each of the leases setting forth the terms and conditions that would implement the extension of the term of the leases through the agreed upon Maximum Option Period. The four Unit 1 leases now expire on January 15, 2023 and the one Unit 2 lease now expires on January 15, 2024. The annual payments during the renewal periods aggregate \$16.5 million for the PVNGS Unit 1 leases and \$1.6 million for the Unit 2 lease, which are included in the table of future lease payments shown below.

The terms of each of the extended leases do not provide for additional renewal options beyond their currently scheduled expiration dates. PNM has the option to purchase the assets underlying each of the extended leases at their fair market values or to return the lease interests to the lessors on the expiration dates. Under the terms of the extended leases, PNM has until January 15, 2020 for the Unit 1 leases and January 15, 2021 for the Unit 2 lease to provide notices to the lessors of PNM's intent to exercise the purchase options or to return the leased assets to the lessors. PNM's elections are independent for each lease and are irrevocable. In the proceeding addressing PNM's 2017 IRP (Note 17), PNM agreed to promptly notify the NMPRC of a decision to extend the Unit 1 or 2 leases, or to exercise its option to purchase the leased assets at fair market value upon the expiration of leases. If PNM elects to exercise its purchase option under any of the leases, the leases provide an appraisal process to determine fair market value. If PNM elects to return the assets underlying the extended leases, PNM will retain certain obligations related to PNVGS, including costs to decommissioning the facility. PNM would seek to recover its undepreciated investments at the end of the PVNGS leases as well as any future obligations related to PNM's leased capacity from NM retail customers. Any transfer of the assets underlying the leases will be required to comply with NRC licensing requirements.

For the three PVNGS Unit 2 leases that did not contain the Maximum Option Period provisions, PNM, following procedures set forth in the leases, notified each of the lessors that PNM would elect to purchase the assets underlying those leases on the expiration date of the original leases. PNM and the lessors under these leases entered into agreements that established the purchase price, representing the fair market value, to be paid by PNM for the assets underlying the leases on January 15, 2016. On January 15, 2016, PNM paid \$78.1 million to the lessor under one lease for 31.25 MW of the entitlement from PVNGS Unit 2 and \$85.2 million to the lessors under the other two leases for 32.76 MW of the entitlement from PVNGS Unit 2. See Note 17 for information concerning the NMPRC's treatment of the purchased assets and extended leases in PNM's NM 2015 Rate Case.

As discussed in Note 16, the NMPRC's final order in the NM 2015 Rate Case ultimately authorized PNM to recover certain costs associated with the extended PVNGS Unit 1 and 2 leases through January 2023 and 2024 and to recover a portion of the January 2016 purchase price of assets underlying certain other leases in Unit 2 but has prohibited PNM from recovering future contributions to the trusts that will be used to fund decommissioning of these interests. The NMPRC's decisions in the NM 2015 Rate Case are currently being appealed at the NM Supreme Court. PNM cannot predict the outcome of the appeals these matters in the NM Supreme Court or what decisions the NMPRC might reach regarding PNM's ultimate decision to further extend, purchase, or return the assets underlying the extended leases.

Covenants in PNM's PVNGS Units 1 and 2 lease agreements limit PNM's ability, without consent of the owner participants in the lease transactions, (i) to enter into any merger or consolidation, or (ii) except in connection with normal dividend policy, to convey, transfer, lease or dividend more than 5% of its assets in any single transaction or series of related transactions.

Table 128, 2017 IRP: SJGS Retires in 2022 - PVNGS Included - FCPP Retires in 2031 (LOAD = MID, GAS = MID, CO2 = MID)

Votable         Fleseutres		Table 128, 2017 IRP: SJGS Retires in 2022 - PVNGS Included - FCPP Retires in 2031 (LOAD = MID, GAS = MID, CO2 = MID)	ZZ - PVNGS	ncluded - FCPP	Retires in 2031	(LOAD = MID, GA	S = MID, CO2 = MID
FCPP Maint Contage Capital         26.30         4,821,424         1,302         1,682           San Juan Undepreciated Assets         17.61         3,419,248         994         1,488           Data Center I Solard (30 MW)         18.32         3,076,591         914         1,300           NIMWEC Repower + 50 MW Solar PV for RPS         18.17         2,913,992         864         1,183           Data Center I Solard (30 MW)         17.21         2,913,993         840         1,183           Data Center I Solard (20 MW)         17.21         2,913,939         840         1,183           Data Center I Solard (20 MW)         17.21         2,913,939         840         1,183           Data Center I Solard (20 MW)         16.91         2,418,242         736         922           Data Center I Solard (20 MW)         14.39         1,298,049         514         433           Data Center I Solard (20 MW)         14.39         1,198,177         493         392           Data Center I Solard (20 MW)         14.28         1,199,177         493         392           Data Center I Solard (20 MW)         14.28         1,192,44         433         364           PWIGS UL Lease Purchase (10 MW)         14.42         1,428         1,192,44	Year	Resource	Reserve	CPP CPP CO2 Tons1	PNM CPP CO2 Ibs/MWh1	PNM NM CPP CO2 Ibs/MWh1	Optimized Portfolio (NPV)
Data Center1 Solart (30 MW) Data Center1 Solart (30 MW) Data Center1 Solard (40 MW) Data Center1 Solard (30 MW) Data Center1 Solard (40 MW) Data Center1 Solard (20 MW) Data Center1 Solard (10 MW) Palo(SC UL Lease Purchase (10 MW) Palo(SC UL Lease	2017	FCPP Maint./Outage Capital San Juan Undepreciated Assets	26.30	4,821,424	1,302	1,682	\$6,956,827,594 Portfolio LOLH (Hours)
Data Cemiert Solar (20 MWV)  Data Cemiert Solar (20 MWV)  Data Cemiert Solar (20 MWV)  Data Cemiert Solar (30 MWV)  Data Cemiert Solar (40 MWV)  Z x Large GT (374 MWV)  PrivOs UL base Purchase (10 MWV)  Reciprocaling Engines (22 MWV)  PrivOs UL base Purchase (10 MWV)  Reciprocaling Engines (22 MWV)  PrivOs UL base Purchase (10 MWV)  Reciprocaling Engines (32 MWV)  PrivOs UL base Purchase (10 MWV)  Reciprocaling Engines (32 MWV)  PrivOs UL base Purchase (10 MWV)  Reciprocaling Engines (32 MWV)  And (100 MWV)  Large GT (187 MWV)  Reconstructive (40 MWV)  Large GT (187 MWV)  Reconstructive (40 MWV)  Large GT (187 MWV)  Reconstructive (40 MWV)  R	2018	Data Center1 Solar1 (30 MW)	17.61	3,419,248	994	1,488	17.11
NAWWEC Repower + 50 MW Salar PV for RPS         18.17         2,913,392         864         1,183           Data Center1 Valua2 (30 MW)         17.21         2,913,392         864         1,183           Data Center1 Valua2 (30 MW)         17.21         2,913,392         840         1,137           Data Center1 Solar6 (40 MW)         16.91         2,418,242         736         922           Data Center1 Solar6 (20 MW)         14.39         1,298,049         514         433           2 x Large GT (34 MW)         14.39         1,298,049         514         433           2 x Large GT (34 MW)         14.28         1,199,177         499         392           PVNGS UL Lease Purchase (10 MW)         14.28         1,199,177         499         392           Solar PV Large (100 MW)         14.79         1,104,127         471         359           Aeroderivative (40 MW)         14.44         1,142,401         478         309           Vind (100 MW)         14.74         1,142,401         478         309           Vind (100 MW)         14.74         1,049,826         388         300           Four Corners Undepreciated Assets         16.35         1,518,550         298         309           Aeroderivative (40	2019		18.32	3,076,591	914	1,300	HISK PORTOIIO AVERAGE (NPV) \$6,967,515,573
Data Center1 Wind2 (50 MW)         17.21         2,913,939         840         1,137           Data Center1 Solard (30 MW)         16.91         2,418,242         736         922           Data Center1 Solard (30 MW)         14.39         1,298,049         514         433           Data Center1 Solard (20 MW)         14.39         1,298,049         514         433           2 x Large GT (374 MW)         2 x Large GT (374 MW)         14.28         1,199,177         499         392           PVNGS UZ Lease Purchase (104 MW)         Reciprocating Engines (82 MW)         14.79         1,104,127         471         359           Reciprocating Engines (82 MW)         14.34         1,142,917         499         392           Solar PV Large (100 MW)         14.34         1,142,917         473         369           Aeroderivative (40 MW)         14.44         1,142,401         478         309           Solar PV Large (50 MW)         14.14         991,724         435         309           Vind (100 MW)         16.36         1,049,826         438         320           Four Corners Undepreciated Assets         16.36         311         401           Large GT (187 MW)         17         1,049,826         236	2020		18.17	2,913,392	864	1,183	Risk Portfolio Tail (NPV) \$174.726.831
Data Center! Solard (30 MW)         T7.21         2,913,939         840         1,137           Data Center! Wind (30 MW)         16.91         2,418,242         736         922           Data Center! Wind (30 MW)         14.39         1,298,049         514         433           2 x Large GT (374 MW)         14.39         1,298,049         514         433           2 x Large GT (374 MW)         14.28         1,199,177         499         382           Palo Verde Undepreciated Assets         Palo Verde Undepreciated Assets         14.28         1,199,177         499         382           PVINGS UZ Lease Purchase (104 MW)         PVINGS UZ Lease Purchase (104 MW)         14.79         1,104,127         471         359           Solar PV Large (105 MW)         Solar PV Large (100 MW)         14.34         1,142,917         473         364           Aeroderivative (40 MW)         14.14         1,142,401         478         305           Large GT (187 MW)         14.14         1,442,401         478         306           Vind (100 MW)         14.14         1,442,401         438         320           Four Corners Undepreciated Assets         16.35         1,518,550         298         438           Large GT (187 MW)         18.74<		Data Center1 Wind2 (50 MW)					20-Year CO2 (Tons)
Data Center1 Solar5 (40 MW)         16.91         2,418,242         736         922           Data Center1 Wind4 (30 MW)         14.39         1,286,049         514         433           2 x Large GT (374 MW)         2 x Large GT (374 MW)         433         433           2 x Large GT (374 MW)         14.28         1,199,177         499         392           PVINGS U1 Lease Purchase (10 MW)         14.79         1,104,127         471         359           Reciprocating Engines (82 MW)         14.79         1,104,127         471         359           Solar PV Large (100 MW)         14.79         1,104,127         471         359           Solar PV Large (100 MW)         14.34         1,142,401         478         367           Solar PV Large (50 MW)         14.44         1,142,401         478         309           Wind (100 MW)         14.74         1,142,401         478         309           Wind (100 MW)         18.74         1,049,826         438         320           Four Corners Undepreciated Assets         16.35         1,518,550         298         382           Large GT (187 MW)         Wind (100 MW)         14         1,612,695         311         401           Aeroderivative (40 MW)	2021	Data Center1 Solar4 (30 MW) Data Center1 Wind3 (50 MW)	17.21	2,913,939	840	1,137	54,905,569 20-Year CO2 Cost (NPV)
Data Center 1 Solarie (20 MW)  2 x Large GT (374 MW) Polyocating Engines (22 MW) Polyocating Engines (22 MW) Polyocating Engines (22 MW) Reciprocating Engines (22 MW) Polyocating Engines (23 MW) Polyocating Engines (24 MW) Polyocating Engines (24 MW) Polyocating Engines (24 MW) Pol	2	Data Center1 Solar5 (40 MW)	16.91	2,418,242	736	922	\$80,446,356
2 x Large GT (374 MW)         Palo Verde Undepreciated Assets         PVNGS U1 Lease Purchase (10 MW)         Reciprocating Engines (82 MW)         PVNGS U2 Lease Purchase (10 MW)         Solar PV Large (100 MW)         Aeroderivative (40 MW)         Large GT (187 MW)         Vinid (100 MW)         Large GT (187 MW)         Recorderivative (40 MW)         Recorderivative (40 MW)         Recorderivative (40 MW)         Recorderivative (40 MW)         Recorderivative (50 MW)	8	Data Center1 Solar6 (20 MW)	14.39	1,298,049	514	433	558
PVNGS U1 Lease Purchase (104 MW) Reciprocating Engines (82 MW) Reciprocating Engines (82 MW) PVNGS U2 Lease Purchase (10 MW) Solar PV Distribution (50 MW) Solar PV Large (100 MW) Aeroderivative (40 MW) Large GT (187 MW) Roar PV Large (50 MW) Vind (100 MW) TH 1,563,348 Solar PV Large (50 MW) Recoderivative (40 MW) The Aeroderivative (40 MW) Rio Bravo CC Expansion (210 MW) Rio Bravo CC Expansion (210 MW) The Aeroderivative (40 MW) The Aeroder		2 x Large GT (374 MW)					20-Year PNM NM CO2 (lbs/MWh)
Reciprocating Engines (82 MW)       14.28       1,199,177       499       392         PVNGS Uz Lease Purchase (10 MW)       14.28       1,104,127       471       359         Solar PV Distribution (50 MW)       14.79       1,104,127       471       359         Aeroderivative (40 MW)       14.34       1,125,148       482       366         Aeroderivative (40 MW)       14.44       1,142,917       473       364         Large GT (187 MW)       14.14       991,724       435       309         Wind (100 MW)       20.89       992,444       439       305         Large GT (187 MW)       18.74       1,049,826       438       320         Four Corners Undepreciated Assets       16.35       1,518,550       298       388         Large GT (187 MW)       16.35       1,518,550       298       330         Aeroderivative (40 MW)       14       1,653,348       304       392         Aeroderivative (40 MW)       15       1,630,686       311       401         Solar PV Large (50 MW)       15       1,640,497       310       396		PVNGS U1 Lease Purchase (104 MW)					20-Year Freshwater (Bn of Gal)
PVNGS U2 Lease Purchase (10 MW) 14.28 1,199,177 499 392  Solar PV Distribution (50 MW) 14.79 1,104,127 471 359  Solar PV Large (100 MW) 15.59 1,125,148 482 366  Large GT (187 MW) 14.34 1,142,917 473 367  Solar PV Large (50 MW) 20.89 992,444 439 305  Large GT (187 MW) 20.89 992,444 439 305  Large GT (187 MW) 18.74 1,049,826 438 320  Four Corners Undepreciated Assets 16.35 1,518,550 298 388  Aeroderivative (40 MW) 14 1,663,348 304 392  Aeroderivative (40 MW) 15 1,630,686 311 401  Solar PV Large (50 MW) 15 1,640,497 310 396		Reciprocating Engines (82 MW)					26.270
Solar PV Listribution (30 MW) Solar PV Large (100 MW)  Large GT (187 MW)  Nind (100 MW)  Aeroderivative (40 MW)  Aeroderivative (40 MW)  Rio Bravo CC Expansion (210 MW)	4	PVNGS U2 Lease Purchase (10 MW)	14.28	1,199,177	499	392	Outside Adjustment 1
Aeroderivative (40 MW)  Large GT (187 MW)  Vind (100 MW)  Vind (100 MW)  Vind (100 MW)  Aeroderivative (40 MW)  Solar PV Large (50 MW)  Aeroderivative (40 MW)  Rio Bravo CC Expansion (210 MW)  15 1,640,497 310 336	Ľ	Solar PV Distribution (50 MWV)	14 79	1 404 427	171	380	\$0 Outside Adiretment 2
Large GT (187 MW) Solar PV Large (50 MW) Vind (100 MW) Large GT (187 MW) Vind (100 MW) Vind (100 MW) Vind (100 MW) Aeroderivative (40 MW) Solar PV Large (50 MW) Rio Bravo CC Expansion (210 MW) Rio Bravo CC Expansion (210 MW)  Large GT (187 MW) Aeroderivative (40 MW) Solar PV Large (50 MW) Rio Bravo CC Expansion (210 MW) Rio Bravo CC Expansion (210 MW) Solar PV Large (50 MW) Rio Bravo CC Expansion (210 MW) Rio		Aeroderivative (40 MW)	15.59	1,125,148	482	366	
Large GT (187 MW) Solar PV Large (50 MW) Solar PV Large (50 MW) Wind (100 MW) Large GT (187 MW) Large GT (187 MW) Large GT (187 MW) Large GT (187 MW)  And (100 MW) Wind (100 MW) Wind (100 MW)  Aeroderivative (40 MW) Solar PV Large (50 MW)  The state of	7		14.34	1,142,917	473	364	Outside Model Adjustment 3
Solar PV Large (50 MW)       14.14       991,724       435       309         Wind (100 MW)       20.89       992,444       439       305         Large GT (187 MW)       18.74       1,049,826       438       320         Four Corners Undepreciated Assets       16.35       1,518,550       298       388         Large GT (187 MW)       Wind (100 MW)       14       1,663,348       304       392         Aeroderivative (40 MW)       14       1,612,695       311       401         Solar PV Large (50 MW)       15       1,640,497       310       396	8	Large GT (187 MW)	14.44	1,142,401	478	367	0\$
Large GT (187 MW)  Large GT (187 MW)  18.74 1,049,826 438 320 16.35 1,518,550 298 388  Large GT (187 MW)  Wind (100 MW)  Aeroderivative (40 MW)  Solar PV Large (50 MW)  Rio Bravo CC Expansion (210 MW)  14 1,563,348 304 392 14 1,612,695 311 401 15 1,640,497 310 396	<b>C</b>	Solar PV Large (50 MW)	14.14	991,724	435	309	Outside Model Adjustment 4
Four Corners Undepreciated Assets  Large GT (187 MW) Wind (100 MW)  Aeroderivative (40 MW) Solar PV Large (50 MW) Rio Bravo CC Expansion (210 MW)  18.74 1,649,826 438 320 14.516,550 298 388 388 388 388 392 402 402 401 396	_	Large GT (187 MW)	20.89	992,444	439	305	Total Optimized NPV + Adjustments
Four Corners Undepreciated Assets  Large GT (187 MW) Wind (100 MW)  Aeroderivative (40 MW) Solar PV Large (50 MW) Rio Bravo CC Expansion (210 MW)  16.35 1,518,550 298 388  388  14 1,563,348 304 392  15 1,630,686 311 401  16 1,640,497 310 396			18.74	1,049,826	438	320	\$6,956,827,594
Aeroderivative (40 MW)  Aeroderivative (40 MW)  Aeroderivative (50 MW)  Solar PV Large (50 MW)  Rio Bravo CC Expansion (210 MW)  14 1,563,348 304 392  15 1,642,695 311 402  15 1,640,497 310 396	2	Four Corners Undepreciated Assets	16.35	1,518,550	298	388	Average Risk NPV + Adjustments
Aeroderivative (40 MW)  Aeroderivative (40 MW)  Aeroderivative (40 MW)  Solar PV Large (50 MW)  Rio Bravo CC Expansion (210 MW)  15 1,640,497 310		Wind (100 MW)					
Aeroderivative (40 MW)       14       1,612,695       311         Aeroderivative (40 MW)       15       1,630,686       311         Solar PV Large (50 MW)       15       1,640,497       310	~		14	1,563,348	304	392	
Aeroderivative (40 MW) Solar PV Large (50 MW) Rio Bravo CC Expansion (210 MW)	4	Aeroderivative (40 MW)	14	1,612,695	311	402	
Rio Bravo CC Expansion (210 MW)	S	Aeroderivative (40 MW)	15	1,630,686	311	401	
	(O	Rio Bravo CC Expansion (210 MW)	15	1,640,497	310	396	

Table 129. 2017 IRP: SJGS Retires in 2022 - FCPP Exit in 2031, No PVNGS Leases available (LOAD = MID, GAS = MID, CO2 = MID)

	Optimized Portfolio (NPV)	\$6,951,746,203 Portfolio LOLH (Hours)	18.22 Risk Porfolio Average (NPV)	\$6,961,349,919 Risk Portfolio Tail (NPV)	\$219,685,073 20-Year CO2 (Tons)	59,490,555 20-Year CO2 Cost (NPV)	\$91,125,796 20-Year PNW CO2 (Ibs/MWh)	, , , , , , , , , , , , , , , , , , , ,	20-Year PNM NM CO2 (Ibs/MWh)	666 20 Voor Evochunden (Br. of Col)	31.858	Outside Adjustment 1	\$0	Outside Adjustment 2	0\$	Outside Model Adjustment 3	\$0 Outside Model Adjustment 4	80	Total Optimized NPV + Adjustments	\$6,951,746,203 Average Risk NPV + Adiustments	\$6,961,349,919	es N		
family and all and	PNM NM CPP CO2 Ibs/MWh1	1,682	1,488	1,300	1,183	1,137	922	538			546	545	521	511	446		378	353	360	456	470	470	473	508
	PNM CPP CO2 Ibs/MWh1	1,302	994	914	864	840	736	629			598	592	582	269	529		481	470	463	350	365	363	367	397
	PNM NM CPP CO2 Tons1	4,821,424	3,419,248	3,076,591	2,913,392	2,913,939	2,418,242	1,608,215			1 659 741	1,647,588	1,577,442	1,585,729	1,375,580		1,192,697	1,141,375	1,177,915	1,777,770	1,872,173	1,878,046	1,916,606	2,096,198
	Reserve	26.30	17.61	18.32	18.17	17.21	16.91	17.50			16.04	14.86	14.60	14.17	14.51		14.21	14.12	20.35	17.72	16	16	15	15
	Resource	FCPP Maint./Outage Capital San Juan Undepreciated Assets	Data Center1 Solar1 (30 MW) Data Center1 Wind1 (50 MW)	Data Center1 Solar2 (40 MW) NMWEC Repower + 50 MW Solar PV for RPS	Data Center1 Solar3 (30 MW) Data Center1 Wind2 (50 MW)	Data Center1 Solar4 (30 MW) Data Center1 Wind3 (50 MW)	Data Center1 Solar5 (40 MW) Data Center1 Wind4 (30 MW)	1x1 NGCC (250 MW)	Data Center1 Solar6 (20 MW)	2 x Large G1 (374 MW) Palo Verde Undepreciated Assets			Solar PV Distribution (50 MW)	Solar PV Large (50 MW)	Large GT (187 MW)	Wind (100 MW)	Solar PV Large (50 MW) Wind (100 MW)	Solar PV Large (100 MW)	Large GT (187 MW)	Four Corners Undepreciated Assets Large GT (187 M/V)		Reciprocating Engines (41 MW)	Reciprocating Engines (41 MW)	Aeroderivative (40 MW)
Section of the last of the las	Year	2017	2018	2019	2020	2021	2022	2023			2024	2025	2026	2027	2028		2029	2030	2031	2032	2033	2034	2035	2036

# Material change due to new 2019 RPS statute - Energy Transition Act

	10009 PNM 2017 IRP appendices, page 3 1180		1840 Existing capacity as of 2020		CF= 33%, PNM IRP appendices, page 93	CF= 33%, PNM IRP appendices, page 93	CF= 33%, PNM IRP appendices, page 93	CF= 40%, PNM IRP appendices, page 93					50.0 Energy Transition Act requirement			
2030	10009	8829	1840		145 (	289 (	145 (	350 (	929	2769		31.4	50.0 E	4415	1646	
2025	9769	8589	1840		145	289		ē	434	2274		26.5	40.0	3436	1162	
2020	9201	9201	1840							1840		20.0				
	GWh	Gwh	GWh		GWh	GWh	GWh	GWh		GWh			%	GWh	bove IRP GWh	
	Retail sales total Data center sales	total retail sales for RPS calculation	20% old RPS requirement	2017 IRP additions w/o Data Center	2024 - solar 50 MW	2025 - solar 100 MW	2029 - solar 50 MW	2029 - wind 100 MW	Sub-total	Total renewable energy in 2017 IRP	(excludes data center)	% of retail sales	New requirement	New renewable energy requirement	Additional renewable energy required above IRP GWh	

# By comparison to Palo Verde

GWh 899
GWh

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Approximate renewable energy MW		368	522 Assume CF= 36%, average of solar and wind
Data center energy			
solar 190 MW	GWh	549	549
wind 180 MW	GWh	631	631
total		1180	1180

# BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF AN INVESTIGATION INTO THE PUBLIC SERVICE COMPANY OF NEW MEXICO'S PURCHASE OF PALO VERDE NUCLEAR GENERATING STATION UNIT 1 & 2 LEASES AND IT'S FINANCIAL IMPACT ON RATEPAYERS  Case No. 19UT  ON RATEPAYERS
AFFIDAVIT OF DAVID VAN WINKLE
STATE OF NEW MEXICO
COUNTY OF SANTA FE ) ss
David Van Winkle, upon being duly sworn, deposes and states: I have written and read
my foregoing Direct Testimony and Exhibits and it is true and correct to the best of my
knowledge, information and belief.
Signed this a day of April, 2019.
Further Affiant sayeth naught.  DAVID VAN WINKLE  DATE
Subscribed and sworn to before me by David Van Winkle on this day of April, 2019.
Official Seal MEGAN J. KELLER Notary Public State of New Mexico My Comm. Expires  Notary Public Notary Public
My Commission Expires: 4/5/22

### BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF AN INVESTIGATION	)		
INTO THE PUBLIC SERVICE COMPANY	Ś		
OF NEW MEXICO'S PURCHASE OF	Ś		
PALO VERDE NUCLEAR GENERATING	í	Case No. 19-	TIT
STATION UNIT 1 & 2 LEASES	ί.	Case 1(0, 1)-	01
AND THE FINANCIAL IMPACT	í		
ON RATEPAYERS	$\sim$		
	,		

### AFFIDAVIT OF DANIEL ERNEST TSO

STATE OF NEW MEXICO	)
	) ss
COUNTY OF SANTA FE	)

- 1. My name is Daniel Ernest Tso.
- 2. I am a Navajo Nation Council delegate, 24<sup>th</sup> Navajo Nation Council. I was elected on November 6, 2018 and my term ends in January 2023.
- 3. I represent Littlewater, Pueblo Pintado, Torreon, Whitehorse Lake, Baca/Brewitt, Casamero Lake, Ojo Encino, and Counselor.
- 4. In 2005, Navajo Nation Council enacted the "Enactment of the Diné Natural Resources Protection Act of 2005," attached and incorporated as an Exhibit to my affidavit. The Resolution banned uranium mining and uranium processing on any sites within Navajo Nation due to injury to humans, including severe illness and death, and to animals, and the detrimental economic impacts including to the land, water, vegetation and other natural resources.
- I join the Joint Petitioners request to the New Mexico Public Regulation
   Commission to initiate a formal investigation into PNM's planned purchase of 114MW of

expiring leases at Palo Verde Nuclear Generating Station to determine if said purchase is in the public interest.

Further Affiant sayeth naught.

Daniel Exrnest Tso

4/13/19 DATE

Subscribed and sworn to before me by Daniel Earnest Tso on this 13 day of April, 2019.

Official Seal
MEGAN J. KELLER
Notary Public
State of New Mexico
My Comm. Expires 2/5 22

My Commission Expires:

Notary Public Kelle

# RESOLUTION OF THE NAVAJO NATION COUNCIL 20th NAVAJO NATION COUNCIL - Third Year, 2005

### AN ACT

RELATING TO RESOURCES, AND DINÉ FUNDAMENTAL LAW; ENACTING THE DINÉ NATURAL RESOURCES PROTECTION ACT OF 2005; AMENDING TITLE 18 OF THE NAVAJO NATION CODE

BE IT ENACTED:

Section 1. Enactment of the Diné Natural Resources Protection Act of 2005

The Navajo Nation Council hereby enacts the Diné Natural Resources Protection Act of 2005.

Section 2. Purpose

The purpose of the Diné Natural Resources Protection Act of 2005 is to ensure that no further damage to the culture, society, and economy of the Navajo Nation occurs because of uranium mining within the Navajo Nation and the Navajo Indian Country and that no further damage to the culture, society and economy of the Navajo Nation occurs because of uranium processing until all adverse economic, environmental and human health effects from past uranium mining and processing have been eliminated or substantially reduced to the satisfaction of the Navajo Nation Council.

Section 3. Amendments to Title 18 Navajo Nation Code

The Navajo Nation Council hereby amends the Navajo Nation Code, Title 18, as follows:

### §1301. Findings

A. The Navajo Nation Council finds that the wise and sustainable use of the natural resources in Navajo Indian Country traditionally has been, and remains, a matter of paramount governmental interest of the Navajo Nation and a fundamental exercise of Navajo tribal sovereignty.

- B. The Navajo Nation Council finds that the Fundamental Laws of the Diné (Diné Bi Beenahaz'annii), as set forth in the 2002 amendments to Title 1 of the Navajo Nation Code, Resolution No. CN-69-02, support preserving and protecting the Navajo Nation's natural resources, especially the four sacred elements of life air, light/fire, water and earth/pollen for these resources are the foundation of the peoples' spiritual ceremonies and the Diné life way, and that it is the duty and responsibility of the Diné to protect and preserve the natural world for future generations.
- C. The Navajo Nation Council finds that the Traditional (Diyin Dinée Bi Beehaz'aani Bitse silei), which are codified in Title 1 as sections 3 and 4 of the Fundamental Laws of the Diné, provide that it is the right and freedom of the people to be respected, honored and protected with a healthy physical and mental environment.
- The Navajo Nation Council finds that the Diné medicine peoples' interpretation of the Diné Natural Law (Nahaszaan doo Yadilhi Bitsaadee Beehazaanii), which is codified in Title 1 as 5 of the Fundamental Laws of the Diné, mandates respect for all natural resources within the four sacred mountains and is symbolized by the Sacred Mountain Soil Prayer Bundle (Dahndiilyee), to maintain harmony and balance in life and a healthy environment, and their recitation of the ceremonies and stories that have been passed down from generation to generation warn that certain substances of the Earth (doo nal Vee dah) that are harmful to the people should not be disturbed, and that the people now know that uranium is one such substance, and therefore, that its extraction should be avoided as traditional practice and prohibited by Navajo law.

- E. The Navajo Nation Council finds that the social, cultural, natural resource, and economic damage to the Navajo Nation from past uranium mining and processing is ongoing due to (i) the continuing need for full monetary compensation of former Navajo uranium workers and their family members for their radiation and mining-induced diseases, (ii) the presence of hundreds of unremediated or partially remediated uranium mines, tailings piles, and waste piles located in Navajo Indian Country, and (iii) the absence of medical studies of the health status of Diné who live in uranium mining-impacted communities.
- The Navajo Nation Council finds that the mining and processing of uranium ore on the Navajo Nation and in Navajo Indian Country since the mid-1940s has created substantial and irreparable economic detriments to the Nation and its people in the form of lands lost to permanent disposal of mining and processing wastes, lands left unproductive and unusable because they are the sites of hundreds of abandoned uranium mines that have not been successfully reclaimed, surface water and ground water left unpotable by mining and processing operations, livestock that could not be marketed because they were believe to have been contaminated by uranium. Navajo workers who lost thousands of person-years to gainful economic activity as a result of their mining-induced illnesses and deaths, and the families of Navajo uranium workers whose livelihoods, agricultural lands and homesites were diminished in value because of the illnesses and premature deaths of the workers.
- The Navajo Nation Council finds that there is a reasonable expectation that future mining and processing of uranium will generate further economic detriments to the Nava3'o Nation. These economic detriments include, but are not limited to, the potential damage projected to the land, water, vegetation, and other natural resources of the Navajo Nation by uranium mining and processing operations. the forbearance or foreclosure of the Navajo Nation from using these natural resources for other economic purposes, the potential remediation costs for damage projected to the natural resources on lands within the Navajo Nation, the potential injury to livestock from uranium mining, including, but not limited to, losses in livestock production, veterinary and other costs, and the potential injury to human beings from

- uranium mining, including, but not limited to, loss of wages, loss of consortium, medical costs, loss of access to and use of vegetation used in traditional ceremonies, loss of current and future potable water supplies, and other costs.
- H. The Navajo Nation Council finds that uranium is and has been expressly left unregulated by the federal government, and is currently unregulated by any tribal entity within Navajo Indian Country.

### §1302. Definitions.

employees.

For purposes of this Act, the Navajo Nation Council adopts the following definitions:

- A. Navajo Indian Country shall mean all lands within the territorial jurisdiction of the Navajo Nation as defined in 7 N.N.C. §254 and IS U.S.C. §1151.
- B. Natural resources shall have the same meaning as set in 2 N.N.C. \$692(A).
- C. Person shall mean any natural person or any other
  entity including domestic or foreign corporations, partnership, associations, responsible business or association agents or officers, any of the several States or a political subdivision of the state or agency of the state, department or instrumentality of the United States and any of its officers, agents or
- D. Remediation shall mean the permanent closure of uranium mining and processing site, waste piles and associated buildings for the purposes of eliminating or substantially reducing releases of radioactive and toxic substance to the air, land and water in such ways as to prevent or substantially minimize human exposure to such substances now and for future generations.
- E. United States shall mean the federal government of the United States of America and any of its agencies, departments, subdivisions, or instrumentalities or officers, agents, or employees thereof.

- F. Uranium mining shall mean the extraction of uranium or uranium ores by mechanical means including, but not limited to, surface mining, open pit mining or underground mining. Uranium mining shall not include extraction of uranium or uranium ores by solution mining.
- G. Uranium processing shall mean the alteration or uranium ores from their natural state by mechanical or chemical including, but not limited to, crushing, grinding, and in situ leach mining or solution mining.

### §1303. Prohibition of Uranium Mining

No person shall engage in uranium mining and uranium processing on any sites within Navajo Indian Country.

Section 4. Codification

The provisions of this Act which adopt new sections of the Navajo Nation Code shall be codified by the Office of Legislative Counsel. The office of Legislative Counsel shall include these sections in the next recodification or supplement of the Navajo Nation Code, to the extent practicable.

Section 5. Savings Clause

Should any provisions of this Act be determined invalid by the Navajo Nation Supreme Court, or the District Court of the Navajo Nation, without appeal to the Navajo Nation Supreme Court,

or any other court of competent jurisdiction, those portions of this Act which are not determined invalid shall <u>remain</u> the law of the Navajo Nation.

### CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by the Navajo Nation Council at a duly called meeting in Window Rock, Navajo Nation (Arizona) at which a quorum was present and that the same was passed by a vote of 63 in favor and 19 opposed, this 19th day of April 2005.

Lawrence T. Morgan, Speaker Navajo Nation Council 21 April 2005

Motion:

Mark Maryboy

Second:

Harry Hubbard

# ACTION BY THE NAVAJO NATION PRESIDENT:

1. I hereby sign into law the foregoing legislation, pursuant to 2 N.N.C. \$1005 (C) (10), on this 29<sup>th</sup> day of April 2005.

Joe Shirley, Jr., President Navajo Nation

# BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF AN INVESTIGATION	```
INTO THE PUBLIC SERVICE COMPANY	, 1
OF NEW MEXICO'S PURCHASE OF	)
PALO VERDE NUCLEAR GENERATING	) )
STATION UNIT 1 & 2 LEASES	, )
AND THE FINANCIAL IMPACT	) }
ON RATEPAYERS	)

OF
LARRY J. KING

ON BEHALF OF NEW ENERGY ECONOMY

### **Background and Experience**

- 2 Q. Please state your name and address.
- 3 A. My name is Larry J King and my mailing address is PO. Box 2197, Gallup, NM 87305
- 4 and I have lived in Church Rock, New Mexico all my life.
- 5 Q. On whose behalf are you testifying in this proceeding?
- 6 A. I am testifying on behalf of New Energy Economy ("NEE").
- 7 Q. Have you testified before in the New Mexico Public Regulation Commission?
- 8 A. No.

1

- 9 Q. Please summarize your professional background as it relates to the Joint Petition.
- 10 A. I worked at United Nuclear Corporation Mining and Milling (UNC), about 12 miles
- 11 northeast of Gallup, NM, at the end of NM State Highway 566, from October 1975 to April
- 12 1983. The first year, October 1975-1976, I worked as a surface laborer. My duties were to
- sweep and clean the "change room", the building where mine employees changed clothing
- 14 from their street clothes into their work clothes or vice versa. Workers getting off work took
- showers and groomed themselves before going home. While I did my janitorial duties, I was
- 16 consistently exposed to uranium dust that the miners brought back from the underground mine
- caked onto their work clothes. From October 1976-1977, I transferred to the geology
- department as an "underground ore prober". My job duty was to follow the miners to their
- assigned locations and after they blasted the mining tunnels I used a Geiger counter to
- 20 determine the grade of the ore pile and tagged the piles accordingly with colored ribbons. That
- 21 would tell the haulers where to take the ore and distribute them correspondingly. From
- October 1977 to April 1982, I transferred to the engineering department as an "underground
- 23 surveyor". During that time, using several kinds of surveying equipment, I surveyed the

1	underground mine tunnels as miners progressed forward. My survey data was used by the
2	engineering staff to update the mine maps and do strategic planning to continue mine
3	production. I provided surveyed reference points to give miners direction to follow towards
4	potential uranium ore bodies. Every two weeks at the end of pay period I had to physically
5	measure all progress made by miners because they were paid by the footage. This meant
6	entering unventilated tunnels and with high radon levels, wading through knee/waist deep
7	mine water, choking through heavy dynamite smoke all in an effort to reach the face of the
8	tunnel to take measurements. This information was provided to the payroll department that
9	determined how much miners would receive on their next paycheck. On a daily basis, I was
10	consistently exposed to radon, uranium dust, heavy metal air particulates, contaminated mine
11	water, diesel smoke, dynamite powder/smoke and abrupt changes in temperature. On a
12	Monday morning in April 1982 all mine employees were called in for a meeting and were told
13	the mine was going to shut down by the end of the week and the first round of layoffs were to
14	begin immediately. I survived the first round of layoffs, but was transferred to the UNC mill
15	site as a surface laborer. I began monitoring existing wells for underground aquifer water
16	levels and took water samples to assess contamination contents in the water. I was
17	monitoring a contaminated aquifer about 100 feet below surface, because the plume was
18	moving in a northerly direction towards the Navajo Nation Reservation boundaries. The mill
19	site had three tailing ponds that were built without liners. I got laid off in April 1983.
20	From October 1983 to January 2018, I worked as an Engineering Technician/Project Manager
21	for the U.S. Government. I oversaw several sanitation facilities construction, costing millions
22	of dollars in federal funding and ensured projects stayed within budget. Worked with tribal,
23	state and federal agencies to streamline processes in completing projects. Provided updates at

- 1 chapter houses to community members and tribal staff/officials regarding community projects.
- 2 Gained general knowledge in chapter activities/policies coordinating with staff regarding
- 3 bathroom additions, right-of-ways and demographic issues.
- 4 In January of 1997, I became involved with a grassroots organization called "Eastern Navajo
- 5 Diné Against Uranium Mining" (ENDAUM), and am still presently active with the
- 6 organization. Our efforts were focused on halting In Situ Leach Mining by Hydro Resource
- 7 Incorporated (HRI), from starting in the Navajo Communities of Crownpoint and Church
- 8 Rock, NM, to protect its sole drinking water source for the communities. Although we were
- 9 unable to have Nuclear Regulatory Commission (NRC) overturn the license they granted to
- 10 HRI, ENDAUM stayed the course and prevented HRI from opening their mines.
- 11 Several positive things evolved during the tenure of ENDAUM. To name a few: we were able
- 12 to educate our tribal government about the legacy of uranium mining and its disastrous health
- and environmental impacts. This resulted in the banning of uranium mining within the
- 14 boundaries of the Navajo Nation, which the Tribal President signed into tribal law in April
- 15 2005.
- 16 I participated in a chapter project in 2003 to monitor the mining legacy in Church Rock, NM,
- 17 the "Church Rock Uranium Monitoring Project" (CRUMP). With the assistance of many
- outside organizations and agencies, we sampled our air, water and land. From the project, we
- 19 discovered how highly contaminated the communities close to mine sites were, and also a
- 20 portion of NM State Highway 566, even though we already knew it in our hearts.
- 21 From these results, another grassroots organization was formed in 2007, the Red Water Pond
- 22 Road Community Association (RWPRCA), to address the community's grave concerns of
- being sandwiched between two abandoned mines, Kerr McGee and UNC, for several years.

1	There main initiative is the removal of mine waste from their residence. I am also currently
2	involved with this organization's efforts to assist them in addressing the problems associated
3	with two abandoned mines and the mine waste legacy. We are currently involved in
4	negotiations with the Environmental Protection Agency (in concert with the US House of
5	Representatives Natural Resource Committee) to seek reparations and community re-location.
6	
7	To insure that the public interest is sufficiently protected the PRC needs to investigate
8	PNM's planned purchase of expiring nuclear leases.
9	Q. Do you support the Joint Petition for a formal investigation into Public Service
10	Company of New Mexico's ("PNM") planned purchases of Palo Verde Nuclear
11	Generating Station ("PVNGS") lease at Unit 1 for 104 megawatts ("MW") and lease at
12	Unit 2 for 10MW in 2023 and 2024 respectively?
13	A. I support the Joint Petition for a formal investigation into PNM's planned purchase of
14	PVNGS leases for the following reasons:
15	a) I believe that without a formal investigation the New Mexico Public Regulation
16	Commission ("NM PRC") will not have the information necessary for the public and agency
17	decision makers to understand the degree to which the purchase of those expiring leasing
18	would contribute to environmental, health and financial impacts to the public. The PRC
19	should design the investigation to insure a fully informed and well-considered decision. That
20	necessarily means that it should also examine alternatives to the proposed action, and the
21	action's direct, indirect and cumulative effects.

1	b) Consistent with the New Mexico Constitution <sup>1</sup> and Navajo Nation Ban on Uranium Mining,
2	attached as Exhibit A, we must promote efforts which will prevent or eliminate damage to the
3	environment and biosphere and stimulate the health and welfare of humans and animals and
4	ensure that the PRC uses all practicable means to assure for all safe, healthful, productive, and
5	aesthetically and culturally pleasing surroundings and to attain the widest range of beneficial
6	uses of the environment without degradation, risk to health or safety, or other undesirable and
7	unintended consequences.
8	c) Uranium's decay products, particularly radon, have well documented adverse health effects
9	on humans. When radon is inhaled, alpha particles are deposited in the lungs and has the
10	potential to cause lung cancer. The adverse effects from occupational exposure to radiation
11	from uranium and its decay products are firmly established. Numerous studies demonstrate
12	that uranium miners and mill workers suffer higher mortality rate compared with individuals
13	who never worked in uranium mines or mills. Increased mortality and morbidity rates ere
14	particularly pronounced among Diné uranium workers and in those cases were directly
15	attributable to exposure to radiation from uranium and its decay products.
16	Q. Is the information set forth in this testimony based on personal knowledge?
17	A. Yes. The information set forth in my testimony is based on my personal knowledge. If
18	called as a witness in this proceeding, I could and would testify competently to these facts.
19	Q. Are you aware of the Church Rock mill tailing spill and can you explained what
20	happened?

 $<sup>1^{\,\</sup>mathrm{NM}}$  Constitution, Article XX, §21: The protection of the state's beautiful and healthful environment is hereby declared to be of fundamental importance to the public interest, health, safety and the general welfare.

1	A. The Church Rock UNC Mill Tailing spill occurred in the early morning of July 16, 1979,					
2	when United Nuclear Corporation's Church Rock uranium mill tailing disposal pond breached					
3	its dam. 1,100 tons of solid radioactive mill waste and approximately 93 million gallons of					
4	acidic, radioactive tailing solution flowed into Pipeline Arroyo, a tributary of the Puerco					
5	River. At first, I did not notice the breach when driving into work. It happened on the day					
6	when I came in two hours earlier, every two week before morning shift starts at 8 a.m., to tak					
7	measurements and document all activities done by the underground miners so they could get					
8	paid accordingly. I recall a few weeks prior to the dam breach, I was called by my superviso					
9	to go with them from our mine site office to the tailing ponds. I noticed several large cracks					
10	on top of the dams, large enough to put a fist in and unable to see the bottom of the cracks.					
11	My supervisors conversed with others at a distance, so I was unable to hear their					
12	conversations, then we got back into our vehicle and returned to the mine office. I did not do					
13	anything but accompanied my bosses to the tailings dam and unsure of what my purpose was					
14	to be or what was being discussed amongst them. The cracks were in the same location of					
15	where the breach occurred.					
16	Q. After the breach of the dam wall what happened?					
17	A. Several days after the spill, the Indian Health Service and the Environmental Improvement					
18	Division of New Mexico warned local residents over the radio and with signs written in					
19	English and Diné to not drink from, water livestock at, or enter the Puerco River. Many					
20	Navajo people in the area speak only Diné, spoken by 150,000 people in the Navajo Nation.					
21	The governmental communication was inadequate and hurt the people because the warnings					
22	were not authoritative, did not come fast enough and did not reach enough people, because					
23	community members and livestock owners continued to wade and cross the contaminated					

1	wash. Warning signs posted in Diné served no purpose, as the traditionally spoken language
2	is not a written language, but meant to be pass down generation to generation orally. The
3	UNC spill left a wake of radioactive waste and heavy metals in the Puerco River's bed and
4	banks which flowed through the City of Gallup NM. Several Navajo community chapters to
5	the west, crossed the Arizona State line and continued through Sanders and Holbrook,
6	Arizona, eventually reaching the Little Colorado River pass in Winslow, AZ. To my
7	knowledge, there has never been any remediation performed to address the contamination.
8	The company's method of cleanup was to hire laborers and provided them with shovels and
9	five-gallon plastic buckets to scoop up the sludge and fill buckets, which were then dumped
10	into fifty-gallon metal drums and eventually disposed of elsewhere. Federal and State
11	agencies have refused to conduct any type of comprehensive health studies to assess the
12	damage even to this day!
13	A few years ago (+4 yrs) a doctoral candidate student with assistance from his consultant
14	colleagues conducted water testing for the town of Sanders AZ. They discovered the small
15	rural town's main drinking water source was contaminated with uranium and other heavy
16	metal and the water utility owner/operators had known about it for years. The water wells
17	were located within the immediate vicinity of the Puerco River, where mine water from UNC
18	flowed for several years. Had any studies been conducted years earlier, this catastrophe
19	perhaps might have been avoided. I have stated several times over the years, the accidental
20	release of radioactive waste from UNC Mill did not happened only one day, July 16th, but
21	untreated contaminated mine water has continually flowed freely through the Red Water Pond
22	community and down the Puerco River since the early 60s to 1995 when the mine was being
23	de-watered to do production, until the water pumps were finally shut off at the mine.

1	Q.	Was the	Church	Rock ra	diation	contamination	the worst in	IIS history?
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- 2 A. Yes, but people know much more about the Three Mile Island disaster. People affected
- 3 there were compensated justly. Whereas, the UNC spill happened in Church Rock and our
- 4 impoverished indigenous community has been left to suffer the consequences without redress.
- 5 Federal agencies, USEPA, NRC, BIA, IHS, to name a few, entrusted to equally protect and
- 6 provide a safe and healthy environment to all U.S. citizens regardless of race, sex and religion
- 7 have failed to protect our community. To this day our indigenous communities are still
- 8 struggling to have their demands heard and addressed. Environmental injustice is at the heart
- 9 of this tragedy.

# 10 Q. What is your understanding of the harms caused by uranium mining and milling and

- 11 nuclear-generated electricity?
- A. I have gained a lot of knowledge about the ill effects of exposure to uranium and other
- 13 heavy metals associated with it, with my involvement with grassroots organizations for more
- than twenty years, advocating for a safe, healthy and clean environment.
- Our community also continues to suffer from the poisons left behind by the mining operations
- that began in the early 1950s. There are about 20 abandoned uranium facilities in the Church
- 17 Rock area. More than half of those were developed by companies that sold uranium ore to the
- 18 US Atomic Energy Commission for use in the nation's nuclear weapons program and have
- not been cleaned up and remediated at all. I knew in my heart that me and my family lived in
- 20 contaminated area, but it wasn't until 2003 when the chapter started CRUMP, that we found
- out how bad the problem was and still is. With the assistance of many outside organizations
- 22 and agencies, we sampled our air, water, and land. An abandoned mine still exists west of my

1	residence about 1000-ft, to this day where the survey had indicated radiation readings 10
2	times above EPA allowable limits for a community dose. A windmill that had been in the
3	community since I was a toddler had to be shut down when it was deemed unsafe for human
4	and livestock consumption. The windmill was the primary domestic water source for many
5	years to several surrounding Navajo communities prior to the mines coming in. About 6
6	miles of NM State Highway 566 between my resident and the UNC Mill/RWPRCA, was also
7	found to have marginal to high readings of radiation along the road, due to ore haulage along
8	the route. From the survey of 2003 it was also discovered how contaminated RWPRCA was.
9	The USEPA eventually conducted their own survey/samplings and concurred with CRUMP's
10	findings regarding dangerous community exposure from being sandwiched between two
11	abandoned mines less than ¼ mile apart for years. The residence had to relocate temporarily
12	about three times in last few years to allow EPA to conduct contaminated soil removal around
13	several homes, reconstruct arroyos and access roads to the community. I have heard and seen
14	several personal testimonies from friends and relatives about the sickness they are dealing
15	with from either being former uranium workers and/or living in the immediate vicinity of
16	uranium mines.
17	It has also affected livestock from drinking water that flowed in the Puerco River and pits left
18	behind from exploration drilling. Sheep get trapped in the sludges left in the pits. I have
19	witnessed sheep and goat born without wool, leaving them with just a pink skin; living only a
20	short time.
21	My own experience with how it effected my late father's herd of cattle was about in the late
22	90s when I had inherited my father's legacy to maintain the family ranch and prosper. I
23	discovered hundreds of bones scattered among the shrubs/weeds in the fields from cow

1	carcasses hidden amongst vegetation inside my permitted grazing unit. I believe that this				
2	significant cattle die-off resulted from the radiation exposure catastrophe to the Puerco River				
3	flow, because my father had extended portion of his ranch fenceline into the Puerco River				
4	wash so that he could alleviate some hardship on him in watering his cattle. This fenceline				
5	extending into the wash, unbeknownst to him, sickened and killed his livestock and also harm				
6	our family financially from UNC contaminated water. Currently, I only provide regulated				
7	water source to my cattle, because I care for my animals as much as I care for my relatives				
8	and fellow human beings.				
9	My family also suffered during the uranium eras in other ways. One of my uncles and his in-				
10	laws were killed when their truck was T-boned by a uranium ore truck on NM State Highway				
11	566 about a mile south of the UNC Mill in May 1975. In July 1976, my mother and her				
12	cousin sister veered off NM566 into an arroyo and died about five miles south of UNC Mill,				
13	an area where the highway right-of-way fenceline extended down into the arroyo which made				
14	the accident unnoticeable for about 2 days. In September 1977, my brother was killed in a				
15	head-on collision with uranium ore truck near the gate to the Old Church Rock Mine 2, about				
16	500-feet across from my current residence at midnight while on his way to work at Kerr				
17	McGee Mine.				
18	In addition, I have seen and heard from others on how community members waded and played				
19	in the contaminated stream. I did the same thing and no one from the UNC ever forewarned				
20	the community that the flowing water is full of toxic radioactive cancer-causing waste. I am				
21	aware of former colleagues that have died from working in the mines and others that are				
22	fortunate enough to still be alive today but are riddled with sicknesses that they attribute to				
23	uranium mine exposure. UNC has never been held accountable for this spill in any way.				

1	Q. Please explain if the radioactive mine spills have been cleaned up and what you are
2	doing about it?
3	A. To my absolute knowledge, the radioactive spill has never been cleaned up! The Puerco
4	River that carried the contaminated fluids since the early 60s to mid 90s, specifically the July
5	16th spill, abuts my grazing permitted area on the east side and wraps around to the south side;
6	on the west side is an existing abandoned mine that was once part of UNC mine, the Old
7	Church Rock Mine 2. Me and my family's residence are encircled with mine legacy
8	contamination. This mine was part of HRI's plan to open an In situ Leach mine, which my
9	organization fought vigorously to stopped, but has since been assumed by a Canadian
10	company. The spill remnants may not be visible, but I understand the contamination from the
11	spill has not gone away. In the mid 90s, when a waterline was being installed in the bed of
12	the Puerco, I noticed the same odor and color in a layer about eight feet below the streambed.
13	In my mind the only recourse of the situation is to remain vigilant: to continue to demand our
14	tribal, local, and federal officials to fund and conduct a comprehensive health study for
15	communities and residence affected along the Puerco River and following that evaluation to
16	redress the communities fully for health impacts and financial losses.
17	Q. Were you actively involved in the passage of the "Enactment of the Diné Natural
18	Resources Protection Act of 2005"?
19	A. As a member of ENDAUM, I worked with others to rigorously educate our elected tribal
20	officials who were very naive at the time to the uranium legacy, and pass the "Enactment of
21	the Diné Natural Resources Protection Act of 2005," in the Navajo Nation Council and signed
22	into law by Navajo Nation President Shirley in April 2005, attached and incorporated as
23	Exhibit A to my affidavit. The Resolution banned uranium mining and uranium processing on

1	any sites within Navajo Nation due to injury to humans, including severe illness and death,					
2	and to animals, and the detrimental economic impacts including to the land, water, vegetation					
3	and other natural resources.					
4	Q. What are the dangers from nuclear-generated electricity?					
5	A. In order for nuclear-generated electricity to occur there must be mining and milling of					
6	uranium. My experience indicates that there have been many illnesses and deaths caused by					
7	the continued reliance on this form of extractive energy. Additionally, we still haven't					
8	discovered any way to deal with the radioactive waste created from the burning of uranium -					
9	this will cause neurological deficiencies, cancers and other health problems for future					
10	generations, as it too, has and will continue to poison waterways. What we do to the Earth we					
11	do to ourselves. There is no escaping this reality.					
12						
13	Conclusion					
14	Given the outsized risks and harms caused by uranium mining and milling and nuclear-					
15	generated electricity that has disproportionally harmed Native Americans I urge the PRC to					
16	take a hard look into PNM's planned purchase of PVNGS nuclear leases.					
17						
18	Q. Does this conclude your testimony?					
19	A. Yes, it does.					

# RESOLUTION OF THE NAVAJO NATION COUNCIL 20th NAVAJO NATION COUNCIL - Third Year, 2005

#### AN ACT

RELATING TO RESOURCES, AND DINÉ FUNDAMENTAL LAW; ENACTING THE DINÉ NATURAL RESOURCES PROTECTION ACT OF 2005; AMENDING TITLE 18 OF THE NAVAJO NATION CODE

BE IT ENACTED:

Section 1. Enactment of the Diné Natural Resources Protection Act of 2005

The Navajo Nation Council hereby enacts the Diné Natural Resources Protection Act of 2005.

Section 2. Purpose

The purpose of the Diné Natural Resources Protection Act of 2005 is to ensure that no further damage to the culture, society, and economy of the Navajo Nation occurs because of uranium mining within the Navajo Nation and the Navajo Indian Country and that no further damage to the culture, society and economy of the Navajo Nation occurs because of uranium processing until all adverse economic, environmental and human health effects from past uranium mining and processing have been eliminated or substantially reduced to the satisfaction of the Navajo Nation Council.

Section 3. Amendments to Title 18 Navajo Nation Code

The Navajo Nation Council hereby amends the Navajo Nation Code, Title 18, as follows:

#### §1301. Findings

A. The Navajo Nation Council finds that the wise and sustainable use of the natural resources in Navajo Indian Country traditionally has been, and remains, a matter of paramount governmental interest of the Navajo Nation and a fundamental exercise of Navajo tribal sovereignty.

- B. The Navajo Nation Council finds that the Fundamental Laws of the Diné (Diné Bi Beenahaz'annii), as set forth in the 2002 amendments to Title 1 of the Navajo Nation Code, Resolution No. CN-69-02, support preserving and protecting the Navajo Nation's natural resources, especially the four sacred elements of life air, light/fire, water and earth/pollen for these resources are the foundation of the peoples' spiritual ceremonies and the Diné life way, and that it is the duty and responsibility of the Diné to protect and preserve the natural world for future generations.
- C. The Navajo Nation Council finds that the Traditional (Diyin Dinée Bi Beehaz'aani Bitse silei), which are codified in Title 1 as sections 3 and 4 of the Fundamental Laws of the Diné, provide that it is the right and freedom of the people to be respected, honored and protected with a healthy physical and mental environment.
- The Navajo Nation Council finds that the Diné medicine peoples' interpretation of the Diné Natural Law (Nahaszaan doo Yadilhi Bitsaadee Beehazaanii), which is codified in Title 1 as 5 of the Fundamental Laws of the Diné, mandates respect for all natural resources within the four sacred mountains and is symbolized by the Sacred Mountain Soil Prayer Bundle (Dahndiilyee), to maintain harmony and balance in life and a healthy environment, and their recitation of the ceremonies and stories that have been passed down from generation to generation warn that certain substances of the Earth (doo nal Vee dah) that are harmful to the people should not be disturbed, and that the people now know that uranium is one such substance, and therefore, that its extraction should be avoided as traditional practice and prohibited by Navajo law.

- E. The Navajo Nation Council finds that the social, cultural, natural resource, and economic damage to the Navajo Nation from past uranium mining and processing is ongoing due to (i) the continuing need for full monetary compensation of former Navajo uranium workers and their family members for their radiation and mining-induced diseases. (ii) the presence of hundreds of unremediated or partially remediated uranium mines, tailings piles, and waste piles located in Navajo Indian Country, and (iii) the absence of medical studies of the health status of Diné who live in uranium mining-impacted communities.
- The Navajo Nation Council finds that the mining and processing of uranium ore on the Navajo Nation and in Navajo Indian Country since the mid-1940s has created substantial and irreparable economic detriments to the Nation and its people in the form of lands lost to permanent disposal of mining and processing wastes, lands left unproductive and unusable because they are the sites of hundreds of abandoned uranium mines that have not been successfully reclaimed, surface water and ground water left unpotable by mining and processing operations, livestock that could not be marketed because they were believe to have been contaminated by uranium. Navajo workers who lost thousands of person-years to gainful economic activity as a result of their mining-induced illnesses and deaths, and the families of Navajo uranium workers whose livelihoods, agricultural lands and homesites were diminished in value because of the illnesses and premature deaths of the workers.
- The Navajo Nation Council finds that there is a reasonable expectation that future mining and processing of uranium will generate further economic detriments to the Nava3'o Nation. These economic detriments include, but are not limited to, the potential damage projected to the land, water, vegetation, and other natural resources of the Navajo Nation by uranium mining and processing operations, the forbearance or foreclosure of the Navajo Nation from using these natural resources for other economic purposes, the potential remediation costs for damage projected to the natural resources on lands within the Navajo Nation, the potential injury to livestock from uranium mining, including, but not limited to, losses in livestock production, veterinary and other costs, and the potential injury to human beings from

- uranium mining, including, but not limited to, loss of wages, loss of consortium, medical costs, loss of access to and use of vegetation used in traditional ceremonies, loss of current and future potable water supplies, and other costs.
- H. The Navajo Nation Council finds that uranium is and has been expressly left unregulated by the federal government, and is currently unregulated by any tribal entity within Navajo Indian Country.

#### §1302. Definitions.

employees.

For purposes of this Act, the Navajo Nation Council adopts the following definitions:

- A. Navajo Indian Country shall mean all lands within the territorial jurisdiction of the Navajo Nation as defined in 7 N.N.C. §254 and IS U.S.C. §1151.
- B. Natural resources shall have the same meaning as set in 2 N.N.C. §692(A).
- C. Person shall mean any natural person or any other
  entity including domestic or foreign corporations, partnership, associations, responsible business or association agents or officers, any of the several States or a political subdivision of the state or agency of the state, department or instrumentality of the United States and any of its officers, agents or
- D. Remediation shall mean the permanent closure of uranium mining and processing site, waste piles and associated buildings for the purposes of eliminating or substantially reducing releases of radioactive and toxic substance to the air, land and water in such ways as to prevent or substantially minimize human exposure to such substances now and for future generations.
- E. United States shall mean the federal government of the United States of America and any of its agencies, departments, subdivisions, or instrumentalities or officers, agents, or employees thereof.

- F. Uranium mining shall mean the extraction of uranium or uranium ores by mechanical means including, but not limited to, surface mining, open pit mining or underground mining. Uranium mining shall not include extraction of uranium or uranium ores by solution mining.
- G. Uranium processing shall mean the alteration or uranium ores from their natural state by mechanical or chemical including, but not limited to. crushing, grinding, and in situ leach mining or solution mining.

#### §1303. Prohibition of Uranium Mining

No person shall engage in uranium mining and uranium processing on any sites within Navajo Indian Country.

Section 4. Codification

The provisions of this Act which adopt new sections of the Navajo Nation Code shall be codified by the Office of Legislative Counsel. The office of Legislative Counsel shall include these sections in the next recodification or supplement of the Navajo Nation Code, to the extent practicable.

Section 5. Savings Clause

Should any provisions of this Act be determined invalid by the Navajo Nation Supreme Court, or the District Court of the Navajo Nation, without appeal to the Navajo Nation Supreme Court,

or any other court of competent jurisdiction, those portions of this Act which are not determined invalid shall <u>remain</u> the law of the Navajo Nation.

#### CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by the Navajo Nation Council at a duly called meeting in Window Rock, Navajo Nation (Arizona) at which a quorum was present and that the same was passed by a vote of 63 in favor and 19 opposed, this 19th day of April 2005.

Lawrence T. Morgan, Speaker Navajo Nation Council 21 April 2005

Motion: Second: Mark Maryboy Harry Hubbard

ACTION BY THE NAVAJO NATION PRESIDENT:

1. I hereby sign into law the foregoing legislation, pursuant to 2 N.N.C. \$1005 (C) (10), on this 29<sup>th</sup> day of April 2005.

Joe Shirley, Jr., President Navajo Nation

# BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF AN INVESTIGATION INTO THE PUBLIC SERVICE COMPANY OF NEW MEXICO'S PURCHASE OF PALO VERDE NUCLEAR GENERATING STATION UNIT 1 & 2 LEASES AND IT'S FINANCIAL IMPACT ON RATEPAYERS  Case No. 19UT
AFFIDAVIT OF LARRY J. KING
STATE OF NEW MEXICO )
COUNTY OF MCKINLEY ) ss
Larry J King upon being duly sworn, deposes and states: I have written and read my
foregoing Direct Testimony and it is true and correct to the best of my knowledge, information
and belief.
Signed this a 17 day of April, 2019.
Further Affiant sayeth naught.  LARRY J KING  DOTE  THE STREET OF THE ST
LAKRY J KING DATE
Subscribed and sworn to before me by Larry J King on this day of April, 2019.

Notary Pub

James George NOTAKY PUBLIC-STATE OF NEW MEXICO

My Commission Expires: 10-10-2022

Joseffre Notary gublic

My Commission Expires: 10-10-2022

## BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF AN INVESTIGATION	)		
INTO THE PUBLIC SERVICE COMPANY	j		
OF NEW MEXICO'S PURCHASE OF	j		
PALO VERDE NUCLEAR GENERATING	í	Case No. 19-	-UT
STATION UNIT 1 & 2 LEASES	í		_ ``
AND THE FINANCIAL IMPACT	ĺ		
ON RATEPAYERS	í		
	Ĵ		

#### **CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true and correct copy of:

JOINT PETITION FOR EXPEDITED INVESTIGATION REGARDING
PUBLIC SERVICE COMPANY OF NEW MEXICO'S PURCHASE OF PALO VERDE

NUCLEAR GENERATING STATION UNIT 1 & 2 LEASES
AND THE FINANCIAL IMPACT ON RATEPAYERS

was hand-delivered to the PRC and emailed to the parties identified below:

#### EMAIL ONLY:

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Chairwoman Becenti-Aguilar T.Becenti@state.nm.us

Dated this \_\_\_\_\_day of April, 2019.

New Energy Economy

Mariel Napaci