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Introduction.

My daughter has a framed poster that has hung in her room over her bed for twenty years: it bears three pictures of a blossoming iris in various stages of opening, with the words “CONSIDER THE ALTERNATIVES” underneath the images. Why as a parent would I want to instill in my daughter the value of thoughtful evaluation? Because with the capacity to discriminate between different choices and label them appropriately she would be better equipped to use that information to guide her thinking and behavior, and this would lead to wise decision-making.

Teaching a child that the evaluation of options is a technique for proper discernment is not merely good parenting it is a core value that has been institutionalized in our government regulations and requirements. Good governance is about following the processes for making and implementing decisions: research – which includes meaningful stakeholder consultation; analysis – which includes explanation and support; transparency – which means an understanding of the process; and deployment – which means effectuating the best decision. It is axiomatic that important decisions should not be made without knowing and weighing the alternatives. The NM legislature and the New Mexico Public Regulation Commission have incorporated these very principles into law and regulation:

- a. The Commission made it clear years ago in another PNM case with environmental and long-term cost implications for its customers that a utility cannot satisfy its burden of proving that a particular resource is in the public interest unless it *reasonably identifies all feasible alternatives* to satisfy its service needs. Only if these alternatives are identified and compared, can it provide the Commission with reliable, non-speculative evidence, that its proposed resource is its most cost-effective option amongst those

alternatives. *In re Public Service Co. of New Mexico*, Case No. 2382, Recommended Decision, p. 38, adopted by Final Order, 166 P.U.R. 4th 318 (1995) (“The OLE Case”).

- b. 1978 NMSA §62-17-10 and NMAC 17.7.3.6¹ and 17.7.3.9 G² require a comparison on a consistent and comparable basis of all feasible alternatives to identify the least-cost portfolio.
- c. On May 18, 2016, the Commission granted PNM’s Motion to Withdraw its Application for a gas plant, in 15-00205-UT, and specifically ordered that in a subsequent filing for its preferred resource that PNM include testimony about the “reasonableness of the scope of the RFP used to select the resource...” at ¶C. indicating that an evaluation of resource options must be addressed.

To recite this need for comparison and evaluation is but to repeat a truism or what is self-evident. Nevertheless PNM refuses to follow this basic premise of logic, good governing, and the law in making the economic decisions that affect NM ratepayers. For too long PNM has assumed that its decisions would be accepted merely because it has made them. In the current rate case, when PNM’s decisions were scrutinized under cross-examination, they were exposed as costly and risky to ratepayers, and made without the rigor required by ratepayer safeguards. Moreover, PNM admitted that its decisions to (1) purchase the Palo Verde 2 leases (2) sign an extended coal contract at Four Corners, and (3) install superfluous pollution controls, were made with NO financial analysis or comparison of alternatives. In fact, PNM acknowledged that the

¹ Where non-renewable resources and renewable resources are “equivalent,” PNM should *prefer* renewable over non-renewable resources.

² Determination of the most cost effective resource portfolio and alternative portfolios.

(1) To identify the most cost-effective resource portfolio, utilities shall evaluate all feasible supply and demand-side resource options on a consistent and comparable basis, and take into consideration risk and uncertainty (including but not limited to financial, competitive, reliability, operational, fuel supply, price volatility and anticipated environmental regulation). The utility shall evaluate the cost of each resource through its projected life with a life-cycle or similar analysis. The utility shall also consider and describe ways to mitigate ratepayer risk.

criterion they considered was what was necessary to meet dollar capital targets to assure the Company enjoys a hefty rate of return for their shareholders.³

In the case of Palo Verde 2, PNM voted (or decided) to purchase the lease interests without even knowing what the price for purchase would be. PNM could not have prudently and reasonably determined the long-term cost effectiveness of including PV2 in rate base versus other feasible options if it did not even know or correctly understand its net book value⁴ at the time of purchase? And, if PNM did know or understand its accurate value at that time, it intentionally overstated that net book value to try to minimize the amount of the acquisition adjustment claimed. PNM understands it is the exception rather than the practice in NM PRC ratemaking to allow for acquisition premiums.

Similarly, PNM did not perform any financial analysis to support the costs for the Four Corners coal contract, or balanced draft technology, or the change to Time of Use (TOU) rate design to determine if these costs were reasonable and prudent. PNM avoided this analysis because it would expose that PNM's resource choices can't compete with alternative resource choices in terms of cost, exposure to risks and liabilities, and appropriateness of resource relative to customer need. And its choices while more costly than alternative renewable energy, also increase health problems, contribute to climate change, and provide no new jobs to New Mexicans.

Legal Standard

PNM did not meet their burden of proof in this case to show that the decisions to purchase the PV2 lease interests, to sign the Four Corners coal contract for a period of 15 years

³ 4/12/2016 TR., Buchanan, page 466

⁴ Is it \$1596/kw (PNM Exhibit 48, Peters, February 22, 2016) or \$1306/kw (PNM's Responses to Bench Requests of April 25, 2016, April 28, 2016 and May 5, 2016.) or some other number?

for a total commitment of \$580 million, to install balanced draft technology were prudent. In all three instances, PNM was negligent in its decision-making because PNM did no contemporaneous financial analysis or risk evaluation, and that is inconsistent with a reasonable standard of care and regulatory principles and practices. It is not prudent for ratepayers to be stuck with PNM's decisions that are not grounded in sound business judgment.

The Commission has adopted the following definition of "prudence": "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." Utility Case No. 2087, Order on Burden of Proof and Specific Issues to be Addressed at 4-5 (10-4-88). 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 (2000)

Without evidence in the record to justify, support, or substantiate the financial soundness of PNM's decisions to rate base the PV2 assets, the long-term Four Corners coal contract, and the balanced draft technology, a decision to allow these costs would be unreasonable and unlawful. Because there was no revenue requirement analysis, other cost-effective determination, or comparison to other alternatives, it is impossible on its face to determine if the utility expenses were prudently incurred and are a benefit to ratepayers. *Zia Natural Gas*, 2000-NMSC-011, ¶ 13, 128 N.M. 728, 998 P.2d 564. The Commission is not free to disregard its own rules and prior ratemaking decisions or "to change its position without good cause and prior notice to the affected parties." *Hobbs Nat. Gas v. NMPSC*, 115 N.M. 678, 681, 858 P.2d 54, 57 (1993) PNM provides no financial proof to justify its decisions that can be considered sufficient "relevant

evidence as a reasonable mind might accept as adequate to support a conclusion,” as “substantial evidence” has been defined by the New Mexico Supreme Court. *Rinker v. State Corp. Comm’n*, 84 N.M. 626, 506 P.2d 783 (1973), recently affirmed in *New Mexico Exchange Carrier Group v. New Mexico Public Regulation Com’n*, 2016 WL 1063125 citing *New Mexico Indus. Energy Consumers v. New Mexico Public Regulation Com’n*, 2007-NMSC 053, 142 N.M. 533.

On April 26, 2016 New Energy Economy filed a Motion to Dismiss PNM’s Request for Cost Recovery of both PV2 interests and the Four Corners coal supply contract arguing that PNM had failed to meet its burden of proof. The Supreme Court of New Mexico has upheld the dismissal of cases where the sufficiency of evidence presented to support a legal claim has not been met and granted a directed verdict. *Sunwest Bank of Clovis, NA v. Garrett*, 823 P. 2d 912, 113 NM 112 (1992)

I. PNM’s Request for Cost Recovery of the acquisition of the 64.1 MW of Palo Verde Nuclear Generating Station Unit 2 (“PV2”) at \$2,500-\$2,600/kw should be disallowed

According to VP and PNM Resources Treasurer, Elizabeth Eden: “It was always an intent to buy back [the PV2] capacity.”⁵ PNM has not met their burden of proof in this case to show that the purchase of the PV2 lease interests is in the public interest. PNM did not meet its burden of proof to demonstrate that PV2 is a cost-effective resource because they did *no* financial or risk analysis, and therefore the costs associated with this acquisition are not reasonable or prudent and will not result in fair, just or reasonable rates. Furthermore, the PV2 acquisition price did not comprehend a “fair market value” assessment. Cost recovery for the acquisition of Palo Verde 2 “is not prudent at \$2500/kW”⁶ for ratepayers. PV2 is not needed and

⁵ 4/19/2016 TR., Eden p. 1801, also at 1673: “It is PNM’s position that you were always going to purchase Palo Verde 2 after the lease expired; is that right? Yes.”

⁶ 4/26/16 TR., Dauphinais p. 2931

is not the appropriate resource to meet customer load. As the New Mexico Attorney General's expert, Ms. Andrea Crane, aptly concluded: "I do find it ironic that you would go out and execute a buy-back of Palo Verde leases for \$150 million or something without batting an eye."⁷

a. PNM has not met its burden of proof that PV2 is cost-effective or economic

i. PNM did not perform *any* financial analysis

PNM admits in its response to NEE interrogatory, NEE 1-4, and in testimony that PNM "has not performed any Strategist[®] runs, economic modeling or financial analysis with respect to the acquisition of the interest in Palo Verde 2 at the valuation cited."⁸ As Ms. Crane explains: "Let's assume they needed 64 [MW]. Was exercising their purchase option with regard to the Palo Verde lease the best way and the most cost-effective way to get that 64 megawatts of capacity? And there, you know, I think you'd be looking at things like, unfortunately, more Strategist runs."⁹ But these Strategist[®] runs were not performed.

PNM's Board made the decision to purchase the PV2 interests without knowing the price.¹⁰ PNM's Board made the decision in December 2013 and PNM signed an irrevocable letter on January 14, 2014 to purchase PV2.¹¹ On February 25, 2014, PNM consummated the negotiations for 31.25 megawatts and on May 1, 2014 for the remaining 32.76 megawatts.¹² According to Dauphinais "that is a fairly quick decision"¹³ to complete negotiations for the multi-million dollar purchase of PV2. According to PNM's Board briefing of December 2013: "Purchasing the other three Unit 2 leases will increase rate base, allowing shareholders to earn a

⁷ 4/27/2016 TR., Crane, p. 3003

⁸ 4/11/2016 TR., Ortiz page 94; Also, See, 4/18/2016 TR., Olson, page 1411; NEE Exhibit #20, DVW-15; 4/19/2016

⁹ 4/27/2016 TR., Crane, p. 3037

¹⁰ 4/19/2016 TR., Eden, pages 1681, 1691, 1692, 1693

¹¹ 4/19/2016 TR., Eden, page 1681

¹² 4/19/2016 TR., Eden, page 1692

¹³ 4/26/2016 TR., Dauphinais, page 2876

return on the assets.”¹⁴ PNM’s Board briefing also stated that the appraisal, negotiation and completion of the fair market value purchase process “is designed to take approximately six months, or it could take longer,” at p. 2 of the briefing, but PNM dispensed with these prudent ratepayer protections and neglected due diligence.

“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. Utility Case No. 2146, Part II, Final Order at 50 (4-5-89)” Final Order in 10-00086-UT, at p. 61 Here the evidence shows that PNM’s board knew at the time what constituted prudence for the PV2 acquisition (appraisal, negotiation, fair market value evaluation process) but rejected exercising these standard of care safeguards in favor of an extremely quick deal.¹⁵

ii. PNM admits that there is no evidence that the PV2 investment is reasonable or prudent for ratepayers

When questioned about the prudence and reasonableness of the PV2 investment for ratepayers, PNM witnesses¹⁶ deferred to Mr. Olson. However, Mr. Olson could not justify, explain, or substantiate putting the cost of PV2 into rate base:

¹⁴ 4/11/2016 TR., Ortiz page 138; NEE Exhibit 20, Van Winkle testimony DVW-14

¹⁵ It should be noted that PNM was seeking CCN approval for Palo Verde Unit 3 assets for \$2500/kw in Case No. 13-00390-UT, at the exact same time that PNM approved acquisition of PV2 in December 2013, and used the February 2014 purchase of Palo Verde Unit 2 in this case to help justify its purchase price in that case. It didn’t work and the Hearing Examiner in 13-00390-UT rejected the \$2500/kw price and instead relied on the book value, explaining that the acquisition adjustment was not based on regulatory principles. Certification of Stipulation, April 8, 2015, pages 116, 117 (“Utility plant should normally be included in rate base at its net book value. ... The Hearing Examiner, therefore will recommend, as a modification to the Stipulation, a valuation based more narrowly on the application of traditional regulatory principles.”) His recommendation to allow PV3 at net book value was ultimately accepted and approved in the Final Order in 13-00390-UT, December 16, 2015.

¹⁶ Ortiz points to Eden in his direct testimony, PNM Exhibit 1, Ortiz Direct, pages 13 and 28. Eden points to Olson 4/19/2016 TR., Eden, pages 1679, 1680; PNM Exhibit 41, Eden direct, pages 24, 25 (Peters also

Q: And what in your testimony indicates or proves or substantiates that PV2 is a prudent investment for ratepayers?

A: Can you refer to my testimony, and I can look at that and see the context of that?

Q: Well, I didn't find any. That's -- that's what I'm asking you.

A: Oh. Well, if I didn't testify to it, then I'm not willing to testify to it on the stand.

Q: If -- if PNM did no financial analysis, how can this Commission determine that this resource is a prudent or reasonable investment?

A: I -- I didn't testify to that. I don't know the answer to that question.¹⁷

iii. PNM did not conduct a Request for Proposal or perform any comparison with other alternatives

PNM did no Request for Proposal (“RFP”) before purchasing the PV2 interests to help determine price.¹⁸ Ms. Crane questioned the reasonableness of excluding external assessments: “[I]f they needed [64 MWs], what’s out there, what are my options for capacity, what would they cost, what’s the most cost-effective way to do it.”¹⁹ When supplied with the information, which the Commission would have with a rigorous all-resource RFP, then the Commission could determine if the resource has met the reasonable and prudent standard. Without a market reference the Commission cannot assure the people in New Mexico that PV2 interests is the best resource for the price (whether at zero valuation or book value or the price paid). Competition gives us that information. With all due respect to all the economists and all the models and all the engineers who surmise what actual prices should be, there is nothing like a competitive market price to assure the customers in New Mexico that a utility got a fair deal. The NM Supreme Court has continually upheld the right of the Commission’s oversight and has concluded “that

does not claim to support, justify or explain the cost-effectiveness of the purchase of PV2, 4/20/2016, TR., Peters, page 1913)

¹⁷ 4/18/2016, TR., Olson, page 1412

¹⁸ 4/19/2016 TR., Eden, p. 1688

¹⁹ 4/27/2016 TR., Crane, p. 3037

the public interest was best served by continued regulation.” *Public Service Co. v. New Mexico PSC*, 815 P. 2d 1169, 1177 (1991).

A determination that the purchase of *a particular resource* is fair *for that resource* is not a determination that the purchase is fair, just, and reasonable for the ratepayer. That can only be determined in a comparison of the suggested resource with other alternatives available. *In The Matter of The Application of PNM for Approval to Construct, Own, Operate and Maintain the Ojo Line Extension*, NMPRC Case No. 2382, 166 P.U.R. 4th 318 (1995).

It would appear that the reason why PNM did no comparison of alternatives is because the alternatives analysis would clearly show that other available resources would cost less. As revealed in testimony:

- Palo Verde 2 total cost per kWh in 2016 is 8.1 cents.²⁰
- Palo Verde 3 costs 5.8 ¢/kWh²¹ and escalates in price by 43% over the 15 years.²² Palo Verde 2 and 3 have nearly identical capacity factors (89%),²³ capital expenditures and fuel costs.²⁴ If the cost of PV2 escalated by the same 43% as PV3 in 2031 the cost to ratepayers would be 11.6 ¢/kWh.²⁵
- Solar costs have been between 4.2 cents to 6.8¢/kWh²⁶ at PNM, SPS, EPE, and NV Energy.²⁷
- In 2016, PNM has received a bid at less than 4 ¢/kWh for solar.²⁸

²⁰ 4/15/2016 TR., Monroy, pages 1191-1194; 4/26/2016 TR., Van Winkle, page 3322, 3324-3325; 4/26/2016 TR., Dauphinais, pages 2863 -2865; NEE Exhibit 20 Van Winkle direct, pages 20 and 23; NEE Exhibit 21

²¹ 4/15/2016 TR., Monroy, pages 1170

²² 4/15/2016 TR., Monroy, page 1194; NEE Exhibit 20, Van Winkle testimony, DVW-18 (Bench Request 10/20/2015)

²³ 4/18/2016 TR., Olson, pages 1412 – 1415; NEE Exhibit 13;

²⁴ 4/18/2016 TR., Olson, pages 1415, 1416; 4/15/2016 TR., Monroy, page 1172

²⁵ 4/15/2016 TR., Monroy, page 1194, 1171; 4/26/2016 TR., Van Winkle, page 3335

²⁶ 4/11/2016 TR., Ortiz, page 117 Solar at 6.8 cents “is the levelized cost.”

²⁷ 4/26/2016 TR., Van Winkle, page 3323

- Gas is also cheaper than PV2 nuclear and PNM has existing facilities that are available to produce more energy, including the transmission to carry the electricity to load centers.²⁹ Afton is a maximum annual capacity factor of 92%³⁰ and its actual capacity factor for 2013 is 35%³¹ and it costs 4.4 ¢/kWh.³² Luna had an actual capacity factor for 2008 - 2013 of 27%³³ and it costs 4.5 ¢/kWh.³⁴ PNM could run Luna at least 60 percent more of the time and add the energy equivalent of 110 megawatts all the time without acquiring any new capacity anywhere.³⁵ (There could be added costs of depreciation and profit but Mr. Ortiz did not know how much that would add to the approximate 4.5¢/kWh.³⁶)
- Mr. Dauphinais also testified that PV2 was not cost effective at \$2500/kW based on his Strategist[®] runs of 2014 in 13-00390-UT.³⁷

²⁸ 4/26/2016 TR., Van Winkle, page 3320

²⁹ 4/12/2016 TR., Johnson, pages 335-337 (PNM has a route for the 295 megawatts of the 415 megawatts to get to Albuquerque.)

³⁰ NEE Exhibit 1; 4/11/2016 TR., Ortiz, page

³¹ NEE Exhibit 2;

³² 4/11/2016 TR., Ortiz, page 108; NEE Exhibit 1

³³ 4/11/2016 TR., Ortiz, page 110, 111

³⁴ 4/11/2016 TR., Ortiz, page 109; NEE Exhibit 1

³⁵ 4/11/2016 TR., Ortiz, page 115

³⁶ 4/11/2016 TR., Ortiz, pages 135, 136

³⁷ Mr. Dauphinais has stated that Palo Verde at \$2500/kW is not cost-effective. 4/26/2016 TR., Dauphinais, page 2920, 2921; Also, see, NMIEC Exhibit 15, Dauphinais direct, page 31 (“[M]y quantitative and qualitative [of] PVGS Unit 3 analysis from Case No. 13-00390-UT, performed within eight months of the time of PNM’s January 2014 decision to purchase the PVGS Unit 2 leases, when adjusted for the differences between the PVGS Unit 2 leases and the PVGS Unit 3 capacity, does not support a most cost-efficient resource option valuation....”) (And at page 14: “PNM’s 2008 IRP does not demonstrate that PNM’s January 2014 decision to purchase the 64 MW of PVGS Unit 2 leases at fair market value at the time of the termination of the leases in January 2016 was the most cost-effective resource option available to PNM at the time with respect to the January 2016 termination of those leases.PNM’s 2011 IRP analysis does not demonstrate that PNM’s January 2014 decision to purchase the 64 MW of PVGS Unit 2 leases at fair market value at the time of their expiration in January 2016 was the most cost-effective resource option available to PNM at the time. There are number of reasons for this. First, the January 2014 decision by PNM to purchase the 64 MW of PVGS Unit 2 leases was made over two years after its 2011 IRP analysis was completed. By the time of PNM’s January 2014 decision, that analysis was stale.

Furthermore, unlike the 2008 IRP analysis, the 2011 IRP analysis did not examine as a resource option the potential purchase of the PVGS leases in 2018.”); Mr. Ortiz claimed that Mr. Dauphinais corroborated

“It would not be in the public interest for the Commission to grant [recovery for an asset] which might meet needs but is the worst among a range of alternatives. Such determinations cannot be made in a vacuum.” NMPRC Case No. 2382, *supra*, at p. 49.

iv. PNM did no comparison between PV2 purchase & lease extension

When asked in discovery “what is the impact on revenue requirements of this purchase versus continued operation via lease”, PNM’s response was “PNM has not performed this analysis.”³⁸ However, PNM did explain why they made the decision to purchase as opposed to lease thus: “Purchasing the other three Unit 2 leases will increase rate base, allowing shareholders to earn a return on the assets.”³⁹

The Hearing Examiner asked the following questions of VP of PNM Resources Elisabeth Eden:

Q: So the lease that was in effect for PV2 before PNM purchased the units -- did that state what the lease payments would be if PNM had extended the lease rather than buy it?

A: Yes. For the 64 megawatts, it would have gone to half lease payment in '16 and '17 compared to what we paid in 2015.

Q: And do you know the dollar amount of that?

A: About \$20 million, so it would have gone from \$20 million to \$10 million in 2016 and then the same amount in 2017 for those 64 megawatts.⁴⁰

PNM did no financial comparison “between the purchase and the lease extension of the 64 megawatts at Palo Verde 2.”⁴¹ (PNM did have the ability to extend the leases, for two years, as they did with the Palo Verde 1 lease interests for another eight years.⁴²) It is unreasonable and imprudent for PNM to recover costs for the purchase of PV2 interests when, once again, PNM did no evaluation relative to this expense versus lease extension. Given the total lack of evidence

PNM’s \$2500/kw as being cost-effective, at 4/11/2016 TR., Ortiz, page 240, but Mr. Dauphinais disputed this at 4/26/2016 TR., Dauphinais, pages 2879, 2880.

³⁸ NEE Exhibit 20, Van Winkle direct testimony, page 18, and Exhibit DVW-12

³⁹ Van Winkle testimony, 1/29/16, Exhibit DVW-14

⁴⁰ 4/19/2016 TR., Eden, p. 1814

⁴¹ 4/11/2016 TR., Ortiz, pages 95-97

⁴² 4/19/2016 TR., Eden, p. 1680, 1682

in this record, there is no justification for cost recovery for purchasing the lease contracts at PV2.

v. No contemporaneous appraisal was produced in the record; The testimony is contradictory as to whether PNM even conducted a PV2 appraisal

On March 27, 2015, PNM's Eden testified that a formal appraisal of the PV2 purchase was conducted but there were no documents:⁴³ "The formal appraisal specific to these purchases was conducted and there are no valuation documents specific to these leases."⁴⁴ On the stand, however, PNM's Eden changed her sworn testimony and said that the word "not" had been left out of the sentence:

A: When I read this answer, I think that there was "not" left out, a word left out. And I think that when you follow the rest of the answer here, we talk about the things that we did look at when we bought the Palo Verde Unit 2. But we didn't have a formal appraisal for Palo Verde Unit 2.

Q: So your testimony *now* is that there was no formal appraisal to Palo Verde 2?

A: Correct.

Q: Okay. So where do you want to insert the "not"?

A: "The formal appraisal specific to these purchases was not conducted and there are no valuations documents specific to these leases."⁴⁵

(Emphasis Supplied.)

After break and on re-direct Ms. Eden changed her testimony yet again:

A: Yes, so PNM did not do an appraisal on Palo Verde Unit 2, but as we talk about in the response here, Cypress had prepared an appraisal in 2009, and that for Palo Verde Unit 2 was in the neighborhood of \$3,300 per kW.

If an appraisal was conducted it would defy common sense that there would be no documents for a multi-hundred million dollar purchase. If an appraisal was *not* in fact conducted, of course, there would be no documents. For Ms. Eden, Vice President and Treasurer for PNM Resources, to be so confused and make contradictory statements about

⁴³ NEE Exhibit # 17; 4/19/2016 TR., Eden, p. 1689.

⁴⁴ NEE Exhibit # 17; 4/19/2016 TR., Eden, p. 1689.

⁴⁵ 4/19/2016 TR., Eden, p. 1716, 1717

whether an appraisal was conducted for PV2 is incredible. The facts remain: PNM did not conduct an appraisal close in time to the purchase of PV2. PNM “has provided an incomplete picture for the Commission” and without an appraisal the Commission cannot determine if the purchase was reasonable and prudent and pursuant to industry accepted standards of care. See, Case No. 2382, p. 101

vi. PNM’s PV2 purchase was not made pursuant to fair-market value

PNM provided no evidence as to whether the purchase of the PV2 leases at the price indicated was economic other than to state that it was purchased at the “fair market value”.⁴⁶ According to PNM’s Treasurer, Eden, “fair market value” is “an important concept.”⁴⁷ Ms. Eden also testified that “***PNM was under compulsion***” to extend the lease, purchase the PV2 lease interests or exit Palo Verde.⁴⁸ (Emphasis supplied.) And PNM complied with this limitation.⁴⁹

The definition contained in the PV2 lease for “fair market value” that PNM signed is: “Fair market rental value or fair market sales value of any property or service shall mean the value of such property or service for lease or sale determined on the basis of an arm’s length transaction for cash between ***an informed and willing lessee or purchaser under no compulsion to lease or purchase an informed willing lessor or seller under no compulsion to lease or sell.***”⁵⁰

(Emphasis supplied.) Both the PV2 lease itself and New Mexico law recognize that there can be no “fair market” evaluation process if one of the parties to the transaction is subject to compulsion. See, *Board of Com'rs of Dona Ana County v. Gardner* 260 P. 2d 682, 686, 57 NM 478 - NM: Supreme Court, 1953 (Court has duty to make sure to avoid pressure of compulsion.)

⁴⁶ 4/19/2016 TR., Eden, pages 1693,1694

⁴⁷ 4/19/2016 TR., Eden, p. 1694

⁴⁸ 4/19/2016 TR., Eden, p. 1685

⁴⁹ Ibid.

⁵⁰ 4/19/2016 TR., Eden, p. 1721; NEE Exhibit 18

PNM Resources Treasurer told the Hearing Examiner that fair market value is “a market price that the market bears.”⁵¹ Ms. Crane testifies: “the Company has not demonstrated that the price paid for the 64 MW of PV Unit 2 reflects a ‘market price’”.⁵²

If PNM had bought the 64 megawatts of Palo Verde today, PNM’s Eden does not know what the fair market value would be.⁵³ Ms. Eden explains that “fair market value” “is when you have a third party, you have an arm’s length transaction, and you have two -- a seller and a buyer and they agree to a price.”⁵⁴

“Fair market value”, according to NMIEC’s expert, Dauphinais, is the measure “reflecting the forecasted value of what the assets in question selling power into the wholesale market are.”⁵⁵ Dauphinais explains that one way to determine the reasonableness of a proposed transaction is by using the “measuring stick” of what that resource is selling for on the open market.⁵⁶

PNM is now selling PV3 on the open market for \$26/MWh.⁵⁷ PNM acknowledges that PV3 and PV2 have relatively similar capacity factors⁵⁸ (89%) and relatively similar O&M and capital expenditure costs.⁵⁹ In this case, PNM is proposing that ratepayers will pay \$81/MWh for PV2 in 2016.⁶⁰ Based on these relative costs (PNM’s request in this case or book value relative to what the market will bear), ratepayers would *not*, according to Dauphinais⁶¹ or Eden⁶² be

⁵¹ 4/19/2016 TR., Eden, p. 1814

⁵² NMAG Exhibit 7, Crane direct, page 26

⁵³ 4/19/2016 TR., Eden, p. 1803

⁵⁴ 4/19/2016 TR., Eden, p. 1695

⁵⁵ 4/26/2016 TR., Dauphinais, p. 2860

⁵⁶ 4/26/2016 TR., Dauphinais, pages 2860 – 2862

⁵⁷ NEE Exhibit # 4 – PNM March 2016 Investor Presentation; 4/19/2016 TR., Eden, p. 1699

⁵⁸ 4/18/2016 TR., Olson, pages 1412-1415

⁵⁹ 4/18/2016 TR., Olson, pages 1415 and 1416

⁶⁰ 4/15/2016 TR., Monroy, pages 1191-1194; 4/26/2016 TR., Van Winkle, page 3322, 3324-3325; 4/26/2016 TR., Dauphinais, pages 2863 -2865; NEE Exhibit 21

⁶¹ 4/26/2016 TR., Dauphinais, pages 2863 – 2870 (NMIEC does not evaluate whether PNM’s PV2 purchase was pursuant to “fair market value.” 4/26/2016 TR., Dauphinais, pages 2878, 2879)

paying a “fair market value” for these assets. In fact, the fair market value of PV2 with a market price of \$26/MWh is likely zero or negative.⁶³

Traditionally, New Mexico Courts make a determination based on a comparison of value between market price and actual price. *Hickey v. Griggs*, 738 P. 2d 899, 902, 106 NM 27 - NM: Supreme Court, 1987; *Jeffers v. Doel*. 99 N.M. 351, 658 P.2d 426 (1982); *Aboud v. Adams*, 84 N.M. 683, 507 P.2d 430 (1973); *Conley v. Davidson*, 35 N.M. 173, 291 P. 489 (1930). Anyone who has ever bought a house wants to know what the “comps” are, what the “comparables” are. (What do other three bedrooms, in the same area sell for? What does a larger or smaller house in a similar neighborhood with a better public school sell for? What is the short-term rental like? These, and perhaps other factors, are to be considered.) In essence, *it is always an evaluation of the difference in values*. Absent any comparison of values it is impossible to assess or judge if the price paid by PNM is pursuant to fair market value. And here there was NO comparison of values and no evidence on which this Commission could determine “fair market value”.

In competitive markets, “there are some nuclear units where the operators believe they’re in distress” because nuclear is struggling financially against cheaper power prices from a combination of gas, solar, and wind. “These are more typically merchant nuclear generation facilities.”⁶⁴ So while there are nuclear plants shuttering because they can’t compete against alternatives PNM is conducting business outside the normal scope of industry practice (even according to its own internal Board briefing document of December 2013⁶⁵ – a fair market value appraisal and valuation assessment “may take six months or longer” to conduct) by refusing to present the results of a financial and risk evaluation. PNM has not subjected its business decision

⁶² 4/19/2016 TR., Eden, p. 1814

⁶³ 4/26/2016 TR., Dauphinais, p. 2873

⁶⁴ 4/26/2016 TR., Dauphinais, p. 2874

⁶⁵ NEE Exhibit 20, Van Winkle Testimony, DVW-14

to purchase the PV2 nuclear resource choice without weighing the alternatives. The Commission is handicapped because it is being asked to evaluate the reasonableness and prudence of PV2 costs for ratepayers, without having the benefit of options presented on a consistent and comparable basis. It would be imprudent for the Commission to allow PNM's purchase, without knowing what any comparable prices are for nuclear or available (existing) energy alternatives.

vii. PNM performed no risk assessment regarding PV2 acquisition interests

PNM has completely omitted any discussion of risk in its testimony, and their concomitant cost issues which may arise: from nuclear equipment failure risk, huge risks associated with decommissioning, etc.⁶⁶ Nuclear power plants such as Palo Verde 2 are very complex facilities and are also subject to substantial regulatory oversight risk. In addition due to their high capital costs and fixed O&M costs, their economics are heavily dependent on achieving very high capacity factors by minimizing the number and length of forced and planned outages that are experienced. In addition, nuclear power plants also face a risk of early shut down due to unforeseen events such as accidents. Finally, these plants also face the risk that decommissioning⁶⁷ and spent fuel disposal costs could exceed current estimates. There are significant cost risks associated that would be transferred from PNM's shareholders to PNM's retail customers that would generally not be present with photovoltaic solar generation."⁶⁸ Costs from older generating plants only continue to rise: PNM's ongoing capital expenditures for PV2 in the last twenty years are \$3Billion.⁶⁹

⁶⁶ NEE Exhibit 20, Van Winkle, p. 16

⁶⁷ PNM has underestimated the cost of decommissioning risk, according to PRC staff expert, David Rode, acquired at ratepayer expense. See NEE Exhibit 20, Van Winkle direct, Exhibit DVW 21.

⁶⁸ 4/26/2016 TR., Dauphinais, page 2903; Testimony of Dauphinais, 13-00390-UT; Also, see, NEE Exhibit 20, Van Winkle, Exhibit DVW-16

⁶⁹ NEE Exhibit 20, Van Winkle, Exhibit DVW-20

There will be no jobs created by PNM's transfer of 64 MWs from PV2 into rate base.⁷⁰

viii. Other analyses prove that PV2 is not cost-effective at \$2500/kw

In fact, the testimony of New Mexico Industrial Energy Consumers, James Dauphinais, in 13-00390-UT shows that the acquisition of MWs from Palo Verde at a rate of \$2,500/kW is *not* economic and may cause unreasonable risk for ratepayers.⁷¹ When Mr. Dauphinais allowed Strategist® to select a resource option, it didn't select Palo Verde at \$2,500/kW, but instead it selected solar photovoltaics.⁷²

b. PV2 is not “used and useful”

According to the Hearing Examiner's Order of February 9, 2016:

“[I]n finding that PVNGS Units 1 and 2 were used and useful, the PRC made clear that this used and useful declaration was not ‘indefinite or open-ended.’ Case No. 2567, Final Order 50. The PRC explained:

[T]he conferral of ‘used and useful’ status on PVGNS Units 1 and 2 at this juncture will not give these units any more insulation from the normal vicissitudes of economics, regulation, or the other circumstances to which they are subject, than they now have. For example, PNM, Staff, the AG and the other signatories agree that the provision under consideration would not serve to preclude future reconsideration or redetermination by the Commission of the costs of these PVNGS units in PNM's rates...

...

In sum, we can give no more assurances on the future ratemaking treatment of PVNGS Units 1 and 2 than we can for any other utility asset in rate base....

The foregoing ‘used and useful’ finding should only remain in force until the Stipulation is superseded or otherwise terminated. If PNM desires at that time to have the Commission declare that PVNGS Units 1 and 2 are then currently used and useful, PNM will have the burden of proof.

Case No. 2567, Final Order 50-52; see also *id.* At 73, ¶DD.

ABCWUA or any other party or Staff may argue in this case that PVNGS Unit 2 is no

⁷⁰ NEE Exhibit 20, Van Winkle, page 16

⁷¹ NEE Exhibit 20, Van Winkle, p. 23

⁷² 4/26/2016, TR., Dauphinais, page 2903, 2943

longer used and useful, and the PRC may determine, based on the facts presented, that all or part of it is no longer used and useful. [] If the PRC finds that PVNGS Unit 2 is no longer used and useful, it may, but is not required to, exclude the asset from PNM’s rate base. PNM’s Reply 5.”

In NMPRC Case No. 2019 Phase I (1986) the Commission in that case *explicitly limited* the scope of the approval for Palo Verde given, which *excluded* the purpose for which PNM is now attempting to use it.

[N]othing contained herein shall be considered as a determination by the Commission of the value of any of the Company’s properties, [...] the propriety of including any item in the Company’s cost of service or other ratemaking determination. The Commission retains full authority over the Facilities [...] including the authority to disallow any or all of the lease expenses and transaction costs on a used-and-useful basis. Final Order, NMPRC Case No. 2019, Phase I (1986), ¶16.

The Commission’s prior ruling in Case No. 2019 Phase II, which addressed *these specific leases*, state unequivocally, “*Mere use alone, however, is insufficient to justify full rate base treatment*, for a utility conceivably “use” much more capacity than necessary to provide reliable service by underutilizing each portion of its property. *Implicit in a utility’s legal obligation to provide service at reasonable rates is the legal duty to provide efficient and economical service.*” [Emphasis Added]. Case No. 2019, pp. 76-77.

To determine if a resource is efficient one must not only evaluate operational efficiency but also evaluate if the resource mix supports customer energy requirements (ie., “does it provide too much energy producing capability?”) and does the resource itself match the profile of peak demands (ie., “is nuclear an appropriate resource to meet peak need?”).

i. PV2 is not needed to meet customer load

New Energy Economy is not challenging whether Palo Verde nuclear generation, itself, is operationally efficient. However, given the fact that PNM’s energy sales are declining and peak

growth is only growing slightly, more nuclear generation on PNM's system will create unnecessary duplication and economic waste.⁷³ PNM's VP of Regulatory Affairs, Gerard Ortiz, testifies "Declines in PNM's energy sales account for approximately 25% of the identified revenue deficiency, or approximately \$31 million."⁷⁴ Further, PNM witness Dr. Faruqui predicts that PNM retail energy sales will continue to be anemic for the next 7 years, through 2021.⁷⁵ Dr. Faruqui testifies that his PNM retail energy sales forecasts "are in line with what I have seen elsewhere in the industry. As noted earlier, sales growth has slowed down since the beginning of the Great Recession of 2008-09. It is recovering slowly with weak economic growth,⁷⁶ the expansion of utility EE programs, and the introduction of new governmental Codes & Standard that raise the energy efficiency requirements of appliances, light bulbs, and buildings."⁷⁷ According to PNM, this trend will continue and total energy sales will be lower than 2015 in every year from 2016 until 2029.⁷⁸

Dr. Faruqui's forecast is only retail sales and does not include wholesale sales. PNM's total energy sales forecast has further degraded since Dr. Faruqui's testimony in August 2015, as PNM has lost its wholesale load⁷⁹ at Navopache Electric Cooperative (NEC), which made up 63 MW and 451 GWh⁸⁰ in 2018. Previously, the wholesale load for Gallup⁸¹ was lost in June 2014

⁷³ "It is the declared policy of the state that preservation of the public health, safety and welfare, the interest of consumers and the interest of investor-members require that the construction, development and extension of utility plants and facilities be without unnecessary duplication and economic waste." §62-3-2 A (2) NMSA

⁷⁴ PNM Exhibit # 1, Ortiz direct testimony, page 4-5

⁷⁵ PNM Exhibit #14, Faruqui direct testimony, page 44

⁷⁶ 4/11/2016 TR., Ortiz, p. 188: "[W]hen you look at the general economic activity of New Mexico, New Mexico has really not recovered from the economic downturn that affected the country beginning in 2007, 2008."

⁷⁷ PNM Exhibit #14, Faruqui direct testimony, page 45

⁷⁸ NEE Exhibit #20, Van Winkle direct testimony, pages 8, 9; Also, see, DVW-5b.

⁷⁹ 4/12/2016 TR., Ortiz, pp. 314, 324

⁸⁰ NEE Exhibit #20, Exhibit DVW-4

⁸¹ "The Gallup City Council voted unanimously March 25 [2014] to award an eight-year contract to Continental, which competed against four other bidders. Continental ranked No. 1 by offering power at

which accounted for 38 MWs and 238 GWh.⁸² Further, the town of Aztec will be leaving PNM's system in July 2016, making up approximately 7 MWs and 39 GWh⁸³ of its customer base, because PNM's cost per kilowatt hour is higher than what Aztec could get elsewhere.⁸⁴ These forecasts do not include any loss of PNM's single largest customer, Intel,⁸⁵ which makes up approximately 3% of PNM's total peak demand⁸⁶ or 55 MW,⁸⁷ and approximately 5% of PNM's total energy sales,⁸⁸ 442 GWh.⁸⁹

The only aspect of PNM's energy profile that is growing is PNM's customer peak demand, but PNM has overstated their forecast, which bears little resemblance to actual peak demand. "Actual retail peak demand has been almost flat since 2007. I'd say it's, like, .4 percent per year"⁹⁰ which from 2007 to 2015 is approximately 2.9 percent in total growth over those eight years.⁹¹ But PNM's "2016 Current Load and Resource Projections of Summer Peak," as reflected in PNM's most recent Answer to ABCWUA's discovery response 17-14

3.4 cents per kilowatt hour in the first year, then slowly increasing annually to just under 6.5 cents per kWh in the eighth year. Runner-up Tucson Electric offered to charge just below 6.5 cents per kWh for all eight years. Third-place PNM offered 6.8 cents." <http://www.abqjournal.com/375626/biz/continental-divide-bumps-pnm-from-gallup.html>

⁸² Exhibit DVW-4

⁸³ Exhibit DVW-4

⁸⁴ NEE Exhibit #20, page 8; "[Aztec is] very excited ... Guzman is the type of company that sets themselves above all others with their proactive and environmentally friendly approach to energy," Aztec City Manager Ray said. "This new agreement will allow us to finally offer our customers a better rate — something we are extremely excited about after 10 years under our current [PNM] agreement. ... We now have a much better contract, so whatever savings we can provide, we are going to provide it to our citizens." <http://www.daily-times.com/story/news/local/aztec/2016/01/19/aztec-get-new-power-contract-solar-farm/79008206/>

⁸⁵ <http://www.abqjournal.com/776420/intel-in-rio-rancho-starts-sending-layoff-notices.html>

⁸⁶ 4/21/2016 TR., Chan, pages 2287

⁸⁷ 4/21/2016 TR., Chan, pages 2284, 2285, 2287

⁸⁸ 4/22/2016 TR., Aguirre, p. 2391-2396 (30B is one single customer and it makes up 5.3% of PNM's total retail energy sales. Customer 30B will see a 91% reduction in fixed fees and all other fees for this customer will be variable if PNM's rate design is approved. The customer has a high load and it doesn't vary much.) Mr. Aguirre, after reviewing Mr. Van Winkle's energy usage charts, confirms that they are correct.

⁸⁹ NEE Exhibit #20, page 10

⁹⁰ 4/28/2016 TR., VanWinkle, pages 3330, 3331; Also see, 4/21/2016 TR., Chan, p. 2114

⁹¹ 4/21/2016 TR., Chan, p. 2112

(Supplemental), NEE Exhibit #16, shows an increase in PNM's peak demand of 1.2 percent per year from 2016-2025⁹² which is approximately 11.3 percent in total growth over those nine years.⁹³ PNM's peak demand growth forecast is 290% percent more than actual peak demand growth.⁹⁴ See, *In The Matter of the Application of New Mexico for Approval to Construct, Own, Operate and Maintain the Ojo Line Extension and for Related Approvals*, PRC, Case No. 2382, November 1995, ("In Case No. 2146, Part II, the Commission stated that 'Given (PNM's) shaky prognosticating history, there is good reason to be skeptical of all of PNM's load forecasts...'” at p. 82)

Energy efficiency and customer-sited PV decreases peak load.⁹⁵ But PNM's "2016 Current Load and Resource" table, NEE Exhibit #16, shows no impact from the popular customer-sited photovoltaics: "yes, the PV is flat"⁹⁶ from 2020 to 2025. "Customer-sited PV, or some people refer to it as "distributed generation. And [the forecast table] shows that the -- the installations -- or the savings increase till -- up to 2019, and then they go flat."⁹⁷ The point here is that PV installations have been approximately 12 megawatts per year, and after 2019 the most recent forecast by PNM shows zero installations, hence, NO reduced impact on the system, which is not credible.⁹⁸

"[I]n 2016, there's savings of energy efficiency of 25 megawatts [according to PNM's forecast in NEE Exhibit #16]. And then it increases till 2022. And then it basically goes flat."⁹⁹ Even though PNM has to spend 3 percent of their revenue by statute for energy efficiency, which

⁹² 4/21/2016 TR., Chan, p. 2115

⁹³ 4/21/2016 TR., Chan, pages. 2114, 2115

⁹⁴ 11.3 divided by 2.9 is 3.9 minus 1 is 2.9 and converting it to a percentage is 290%.

⁹⁵ 4/21/2016 TR., Chan, page 2115

⁹⁶ 4/21/2016 TR., Chan, page 2116

⁹⁷ 4/28/2016 TR., Van Winkle, page 3332

⁹⁸ 4/28/2016 TR., Van Winkle, pages 3332, 3333

⁹⁹ 4/28/2016 TR., Van Winkle, pages 3331, 3332

over ten years is roughly \$300 million, the savings are zero.¹⁰⁰ That means either that the energy efficiency programs will be meaningless and the PRC will do nothing to correct this or, more credibly, that PNM has not prognosticated the forecast accurately.

To summarize, PNM's energy sales forecast decline from 2015 through 2029 and their peak demand forecast shows modest growth. In addition, to this anemic forecast the popular solar and energy efficiency amounts cited, but underestimated, in their load forecast are a significant risk to PNM's energy sales and peak demand forecast. Therefore, adding 64 MWs of PV2 is unnecessary and excessive. See, NMPRC Case No. 2382, *ibid*, p. 94 (Given the unreliable nature of future load and the availability of alternatives "OLE is excessive.")

ii. PV2 is not the appropriate resource to meet customer load

PNM relies on Vice President of Generation, Chris Olson, to substantiate and justify continued investment in PV2 as a "reliable and economic resource" and a prudent investment for ratepayers.¹⁰¹ Although Mr. Olson explains that he is not responsible for resource planning,¹⁰² and does not conduct studies regarding the economics of particular resources,¹⁰³ he is PNM's only witness regarding the use of PV2 and/or Four Corners to meet customer needs. However, when questioned Mr. Olson did not know:

- 1) the percentage of energy that comes from base load resources;¹⁰⁴ or
- 2) the current energy sales forecast for 2016;¹⁰⁵ or

¹⁰⁰ 4/28/2016 TR., Van Winkle, pages 3331, 3332

¹⁰¹ 4/19/2016 TR., Eden, pages 1679, 1680: "So my question to you was: You rely on Mr. Olson to justify to the Commission in this case that Palo Verde 2 serves PNM customers reliably and economically. Yeah.... . But I'm not asking what he discussed in his direct testimony I'm saying, is that your testimony? Yeah, I'm relying on his testimony to serve customers reliably and economically."; 4/18/2016 TR., Olson, pages, 1411,1412: "I'm not familiar with [any] other witnesses testimony to support that" PV2 is a prudent investment for ratepayers.

¹⁰² 4/18/2016 TR., Olson, p. 1408

¹⁰³ 4/18/2016 TR., Olson, p. 1408

¹⁰⁴ *Ibid*.

- 3) whether energy sales increase or decrease after 2016;¹⁰⁶ or
- 4) **if there was evidence in the record that PNM needs more baseload, other than Olson’s statement;**¹⁰⁷ or
- 5) the risks associated with nuclear generation.¹⁰⁸

Mr. Olson agrees with PNM’s Director of Resource Planning, Patrick O’Connell, that “flexible resources are a key resource to meet peak demand”.¹⁰⁹ Mr. Olson then testifies that Palo Verde does not have quick-start flexibility, does not help PNM meet contingency reserve requirements, and that Palo Verde is not a flexible resource.¹¹⁰

In contrast, cost-effective solar correlates well to meeting peak demand.¹¹¹ Mr. Van Winkle testified: Solar is superior to nuclear for peak contribution. To produce the same amount of energy as the proposed 64 MW acquisition (501 GWh), 172 MW of solar is required. This 172 MW will contribute 104 MW to peak attainment.¹¹² In 13-00390-UT, he compared the output of PNM’s solar facilities for 2012-2014 during the top 100 peak demand hours in each year. Van Winkle concluded that solar energy output is correlated with peak demand hours, in other words, solar output is high during peak hours. The common sense explanation of this is: the sun shines heating up buildings that then start air conditioners to cool the buildings. This causes the PNM system peak hours, to correlate with high solar output due to the sun shining.

As PNM’s load factor is declining (i.e. becoming more peak-oriented), a solar resource would be a much more appropriate resource to meet PNM system needs than 64 MW of baseload

¹⁰⁵ Ibid.

¹⁰⁶ 4/18/2016 TR., Olson, pages 1408, 1409

¹⁰⁷ 4/18/2016 TR., Olson, page 1409

¹⁰⁸ 4/18/2016 TR., Olson, page 1418

¹⁰⁹ 4/18/2016 TR., Olson, page 1410, Also see NEE Exhibit #20, p. 23

¹¹⁰ 4/18/2016 TR., Olson, page 1409

¹¹¹ 4/11/2016 TR., Ortiz, pages 27, 33,67

¹¹² NEE Exhibit 20, Van Winkle Direct, 1/29/2016, pages 22-23, citing PNM’s 2014 IRP, page 91, table 6

nuclear. As highlighted previously in this testimony, PNM energy sales will decline from 2015 through the next 15 years, but peak demand will grow. Thus, baseload resources, such as Palo Verde 2, that produce a lot of energy, but do not serve peak demands well should be avoided, so that customers don't get stuck paying for resources that it not needed to meet their needs, and carries enormous future risk and liabilities.¹¹³ This testimony by Mr. Van Winkle was unchallenged by PNM during cross-examination.¹¹⁴

II. PNM's PV2 Book Value was Either Unknown at the Time of Purchase Hence the Purchase was Imprudent OR PNM Intentionally Overstated the Book Value to Reduce PNM's Acquisition Premium Request

a. PNM's Has Not Met It's Burden of Proof Regarding Alleged Book Value

On February 22, 2016, PNM's Jason Peters, Director of General Accounting for PNM Resources, filed sworn testimony in response to a February 17, 2016 bench request specifically regarding the accounting PNM had conducted to determine the book value of the purchased PV2 lease interests: "The correct net book value PNM used to project the value of the 64.1 MW of Palo Verde Unit 2 leases purchased ("PV2 Interests") is \$1,596/kw as stated by ABCWUA

¹¹³ NEE Exhibit 20, Van Winkle Direct, 1/29/2016, pages 22-23

¹¹⁴ Both the witnesses for NMAG and NMIEC took no position on whether PV2 is a needed resource for PNM. See, 4/26/2016 TR., Dauphinais, p. 2879; See, also 4/27/2016 TR., Crane, pages 3036-3037 ("Q: Can you tell me in general terms what do you think that the company needed to provide to demonstrate those things? What types of information?

A: I think it should have provided – there has been a lot of discussion, I guess, about customers and what's happening to load on the system and energy declining, although demand might be increasing, it's getting peakier. I think we have heard that.

So I can't tell you, sitting here today, whether they really needed 64 megawatts of capacity, whether they need to retain that or not. I think some parties in this case think that they didn't need that capacity at all. So I can't really comment on whether they did or they didn't. But I think there has been at least a suggestion that maybe they didn't need 64 megawatts at all. They should have just gotten rid of that capacity.

So that's sort of part A. And I really can't comment. I think part B is, let's they did need it. Let's assume they needed 64. Was exercising their purchase option with regard to the Palo Verde lease the best way and the most cost-effective way to get that 64 megawatts of capacity? And there, you know, I think you'd be looking at things like, unfortunately, more Strategist runs, as much as I hate to say that").

Witness Dittmer.” pp. 1, 2.¹¹⁵ Mr. Peters repeatedly cites this number and that valuation throughout the testimony: p. 4, 7, 9, 10, etc.¹¹⁶ In fact, the “purpose” of his testimony was to state “what amount [PNM used] as the net book value of the PV2 interests and [to explain] how this amount was calculated,” at pp. 1, 10. This was the *only* issue addressed in Peters’ February 22, 2016 testimony.

Peters reiterated this testimony at his live examination on April 20, 2016, and stated: that \$1596/kw was unequivocally the “properly calculated” book value of Palo Verde 2 nuclear power assets in Arizona.¹¹⁷ Peters testified:

“Yes. Again, this schedule, this entire calculation is a mechanism to come up with an original cost basis for the 64 megawatts that was purchased. So the schedule and the steps delineated especially in my supplemental testimony are the steps that I went through to calculate original cost basis. And then that total original cost is divided by 134 megawatts to come up with a dollar per kw value of 1,596 which was then applied to the 64.1 megawatts purchased in this case.”¹¹⁸

In cross-examination we learned that \$1596 per kW was NOT the net book value. The prior testimony of Peters, both written and live, is now known to have included original *write-up amounts* and other improper calculations that were non-responsive to Commission inquiry. Peters clearly demonstrated that he had this information (write up of 71.22%) readily available as he produced it in responses to questions in live testimony:

Q: ... So this 1596 already includes the write-up; is that correct?

A: Yes, as it’s required to show the original cost calculation.

...

Q: Okay. So you testified that the 1596 a kW includes the write-up amount, that’s what you testified to; is that right?

¹¹⁵ PNM Exhibit 48, Peters, Rebuttal, 2/22/2016

¹¹⁶ PNM Exhibit 48, Peters, Rebuttal, 2/22/2016

¹¹⁷ 4/20/2016 TR., Peters, pages 1919, 1920 (“The amount is used to calculate the --- it is included as a component to calculate the \$1596 per kW that’s then used to apply the original cost amounts to the 64 megawatts.”); 1925, 1926

¹¹⁸ 4/20/2016 TR., Peters, pages 1922

A: Yes, properly calculated original cost.¹¹⁹

When PNM tendered written responses to the bench requests of April 25, 2016, April 28, 2016 and May 5, 2016 PNM acknowledged that the “more accurate” “book value” of the Palo Verde asset was *not* \$1596/kw but is rather \$1306/kw.¹²⁰ PNM stated that the new “[re]calculation” “supercedes” the old one.¹²¹ The PRC was correct to recognize that PNM’s revisions “reveal material changes in PNM’s asserted net book value (NBV) for the 64 MW of PV2 that PNM repurchased as well as the related acquisition premium it seeks to recover in rates.” Order, May 18, 2016, at ¶5. These “significant [] discrepancies”¹²² are *material* and evidence PNM’s lack of due diligence, which has been a hallmark of PNM’s Application, direct, rebuttal and supplemental testimonies regarding the PV2 purchase.

How can PNM have acted reasonably and prudently if PNM did not know what the “accurate” NBV of Palo Verde 2 assets were before it purchased those assets? See, NMSA 1978, § 62-6-14.A¹²³ Or more likely, PNM knew what the NBV was, but intentionally inflated that NBV to try to minimize the amount of the acquisition adjustment claimed, which PNM understands is the exception rather than the rule in ratemaking.

PNM has not proven that their numbers are consistent and trustworthy and therefore has not sustained their burden of proof.

¹¹⁹ 4/20/2016 TR., Peters, pages 1925, 1926

¹²⁰ PNM proposes to move its interest in PV2 into rate base at a value that is approximately 96% above book value. (\$2555 (the average price paid by PNM for 64 MWs of PV2) minus \$1306 (PNM’s BR-5, April 28, 2016) is \$1249, which the value above book value PNM wants to charge customers. To get the percentage increase above book value divide \$1249 by \$1306 which is .96. To convert it to a percentage multiply .96 times 100, which equals 96%.)

¹²¹ PNM Response of April 28, 2016, at p. 11

¹²² Order, May 18, 2016, at ¶6.

¹²³ “It is necessary for the commission to consider or ascertain the valuation of the properties or business of a public utility, or make any other determination involved in the fixing or setting of rates for a utility, the commission shall give due consideration to the history and development of the property and ... original cost ... and other elements of value ... for rate-making purposes.”

III. PNM has Failed to Meet Its Burden of Proof to Recover Fuel Costs Related to the Four Corners Power Plant Take-or-Pay¹²⁴ Coal Supply Agreement and those Costs Should be Denied as Unjust and Unreasonable

The New Mexico Supreme Court has reviewed take-or-pay fuel supply contracts and has determined that the Commission should require the utility to use a cost/benefit test to evaluate the reasonableness of their decision. See, *In re Petition of PNM Gas Servs.*, supra, discussion at pages 397-401. In this case there was *no* cost/benefit analysis or *any* financial analysis (ie., revenue requirement analysis) whatsoever for the Four Corners Power Plant Take-or-Pay Coal Supply Agreement. When another utility, El Paso Electric (EPE), was facing the same decision, in the same plant, at the same time, EPE did a detailed financial and risk analysis and determined that they should exit the plant at significant savings for customers.¹²⁵ Again, applying the Commission's definition of prudence, as stated more fully above, relative to PNM's application for recovery of costs for the Four Corners coal supply contract, PNM failed to exercise a reasonable and prudent process of determination before committing ratepayers to a 15-year \$580 million contract.

a. PNM did NO contemporaneous financial analysis to justify, substantiate or support cost recovery for the Four Corners Power Plant Coal Supply Agreement

Like with the purchase of PV2 interests, PNM did not do *any* contemporaneous economic analysis to determine whether the cost of the coal supply as indicated in the new Coal Supply Agreement at the Four Corners Power Plant ["FCPP"] was economic, reasonable and in the public interest.

The lack of any analysis to justify, substantiate or support PNM's 15-year \$580 million

¹²⁴ 4/18/2016 TR., Olson page 1439 (Take-Or-Pay: "if you do not reach your minimum, you would be required to pay for that fuel and not receive it.")

¹²⁵ 4/11/2016 TR., Ortiz, pages 154-156, 158-159; Also, see NEE Exhibit 20 Van Winkle direct, pages 31-32

cost the Four Corners coal contract was confirmed in testimony by PNM witness Gerard Ortiz:

Q: Did PNM do any financial, analysis that is provided in testimony that explains, supports, or justifies the signing of the Four Corners coal contract?

A: I know that we have done some resource modeling for the new coal contract. I don't remember if it was filed in testimony.

Q: Did PNM do any financial analysis that is provided in testimony that explains, supports, or justifies the signing of the Four Corners coal contract to indicate that it's cost-effective for ratepayers?

A: No but neither am I aware of any requirement that we get prior approval for such a contract. And of course, if the Commission wishes to look into that in the future, they could.¹²⁶

PNM carries the burden of demonstrating that fuel costs included in rates are fair, just, and reasonable, but without any financial analysis it can't show that the increased rate or charge meets that burden. 1978 NMSA §62-8-7.

Witness Ortiz attempted to skirt the issue at hand by suggesting that an assessment of the reasonableness of the coal supply agreement was really a demand that the contract get prior approval, which is not required by PRC regulation. No one argued that PNM get prior approval of the contract. Rather, NEE's position has clearly remained that while PNM was certainly free to engage in any contract it wished, the *inclusion of the cost of that contract in rates* must be fair, just and reasonable and is therefore subject to commission review. That PNM incurred the cost of the coal supply agreement is not sufficient proof that the costs should be recovered.

Witness Olson suggests that the only economic assessment required is that which is conducted in the IRP process. Like other PNM witnesses, Olson relies on IRPs that have been protested and not approved by the commission.¹²⁷ The 2014 IRP is irrelevant because it occurred

¹²⁶ 4/11/2016 TR., Ortiz, pages 147, 148.

¹²⁷ Olson repeatedly refers to the 2014 IRP in his Direct Testimony submitted 8/27/2015 (see, for example, pg. 36) yet in cross-examination by New Energy Economy repeatedly asserted that he simply did not know about IRPs. See, for example, Olson Tr. 4/18/2016, pg. 1436.

after PNM signed the coal contract in December 2013.¹²⁸ Even if the referenced 2011 IRP had been approved of by the commission the 2011 IRP was stale because it did not include the *cost of coal* which is proposed to be recovered in the present case. The 2011 IRP also did not contain major changes in PNM's energy portfolio, like the closure of San Juan, changes in customer load, changes in alternative resource costs, regulatory risk costs, etc. Therefore, it is wholly irrelevant whether or not the Four Corners Power Plant was considered part of PNM's un-vetted "least cost portfolio" as presented in 2011 because by the time the decision was made in October 2013¹²⁹ there were dramatically changed factors that were known and should have been considered when deciding to sign the new Coal Supply Agreement.

Just like the stale 2011 IRP which PNM attempts to use to justify its recovery for coal costs, PNM unconvincingly alludes to out-of-date Strategist[®] runs that contain irrelevant inputs, most importantly, but not exclusively, the actual coal costs from this contract, which the witnesses have little or no actual knowledge about.¹³⁰

The questioning by the Hearing Examiner of Mr. Van Winkle sums up PNM's lack of due diligence before signing the coal contract:

Q: Okay. And your argument that the costs of the Four Corners coal contract should be excluded from rates, do I understand correctly that that's based on a position that PNM didn't consider alternatives to Four Corners at the time it entered into the contract, and that you're not challenging the dollar amount, as -- as being imprudent?

A: Well, I mean, the dollar amount is a part of the total cost of producing electricity at Four Corners.

¹²⁸ 4/18/2016 TR., Olson, page 1419

¹²⁹ 4/11/2016 TR., Ortiz, p. 147; 4/18/2016 TR., Olson, p. 1420; NEE Exhibit #7

¹³⁰ On redirect Ms. Taylor states that the May 2012 Strategist[®] runs show that the coal contract was cost-effective, at 4/14/2016 TR., Taylor, page 1043, but under cross-examination Ms. Taylor admits she is "not familiar with the specifics of those Strategist[®] runs". At page 1048. (Ms. Taylor didn't know what the inputs for cost of resources, whether the runs included capital expenditure costs, etc. from pages 1047-1048) Also see cross-examination of Ortiz pages 156 - 158 which culminates in the most important admission: "Q: So basically, PNM's response to our question about any financial analysis around Four Corners either happened in the middle of 2012 or after the board approved the Four Corners coal contract; right? A: Those were the dates of these runs.) 4/11/2016 TR., Ortiz, page 158

Q. Uh-huh.

A: And the rate increases are quite substantial. The incremental part from one time -- first time period to the next is 40 percent in the short term. And it escalates over time to, I think, 128 percent. So the increases are quite significant.

But, really, it's in the context of is this a reasonable and prudent situation? PNM, when they made the decision, they made the decision in October of 2013 to move forward with extending this for 15 years. They signed the contract in December of 2013. At that point in time, they had no current Strategist runs that compared with Four Corners or without Four Corners. And without that kind of analysis, it's -- it's -- how can you determine whether it's a cost-effective solution or not?¹³¹

b. Four Corners Power Plant Coal Supply Agreement includes a 128% increase in coal costs and binds ratepayers for 15 years

PNM admits that the cost of coal as a result of the new coal contract will rise by 40% from June to July 2016.¹³² The cost of coal will rise by 128% and in the amount of \$270 million over the term of the contract. The total cost is \$580 million.¹³³ PNM admits that these numbers come from its own Strategist[®] runs and are correct.¹³⁴ 1978 NMSA §62-8-7.

The 15-year contract will lock in coal at a time when the market has shifted dramatically away from coal.¹³⁵ The time commitment associated with this contract is not insignificant and is another factor that underscores the imprudence and unreasonableness of this coal contract.

Long term, coal is not only a threat to climate change and local health, it saddles ratepayers with a high cost resource that will prevent PNM from meeting its statutory obligations to the Renewable Portfolio Standard to have 20% renewables in its portfolio by 2020¹³⁶ without the

¹³¹ 4/28/2016 TR., Van Winkle, pages 3328, 3329

¹³² See Staff Exhibit #1, page 30 of 385.

¹³³ Exhibit DVW-11, which PNM witness Taylor confirms she does not dispute. Taylor Tr. 4/14/2016, pg. 922.

¹³⁴ 4/14/2016 TR., Taylor, pages 924, 925

¹³⁵ 4/19/2016 TR., Eden, pages 1729 (“some utilities [] are reducing their coal exposure”) 1732 (“I would say that there are utilities that are looking to retire coal plants, yes.”) and 1735 (financial risks which is significant to PNM includes capital spending necessary to meet environmental compliance)

¹³⁶ The requirements of the Renewable Energy Act,¹³⁶ NMSA 1978 Section 62-16-1 *et. seq* require PNM to consider the use of renewable resources instead of non-renewable resources: The Renewable Energy Act states that “the generation of electricity through the use of renewable energy presents *opportunities* to

purchase of Renewable Energy Credits. Actual renewables on the ground will be impossible because PNM will already have a combined energy output of more than 80% from coal and nuclear in its portfolio and there will be no room to add renewables, whatever the cost. So, in reality this coal and nuclear purchase squeezes out renewables. This has a concomitant negative impact on the growth of the New Mexico economy, literally, because renewable energy is the brightest job-producing area.

c. PNM Never Considered the Ongoing Financial Risks Associated with the Four Corners Power Plant Coal Supply Agreement

In addition to the cost increase from the coal contract there were associated cost risks with the long-term coal contract, including, but not limited to increasing costs of pollution controls, costs from regulatory compliance, and costs of litigation. Mr. Olson admits under cross-examination:

Q: "...when PNM made the decision to sign the Four Corners coal contract, you did know that there were future environmental risks, including litigation risk.

A: Yes, we knew that there were risks."¹³⁷

SCR pollution control costs at FCPP have risen from \$75.4 million in 2013¹³⁸ to \$94 million today.¹³⁹ PNM provided no evidence that it took these changes in cost into consideration or that they assessed the prudence of the request for cost recovery of the coal contract with all of its attendant cost risks. The cost recovery sought by PNM for the costs associated with the new Coal

promote energy *self-sufficiency*, preserve the state's *natural resources* and pursue an *improved environment* in New Mexico" and can bring "*significant economic development and environmental benefits* to New Mexico." (Emphasis supplied.)

¹³⁷ 4/18/16 TR., Olson, pages 1435-1436

¹³⁸ NEE exhibit #14.

¹³⁹ Staff Exhibit #1, pg. 295 of 385; NEE Exhibit #4.

Supply Agreement does not include any future risk going forward: from litigation risk, regulatory risk or any other risks.¹⁴⁰

The Commission can take administrative notice that Governor Martinez declared a state of emergency due to drought conditions statewide, “Drought Declaration”, Executive Order 2012-006. “New Mexico continues to suffer through a prolonged drought.”¹⁴¹ [T]he State of New Mexico has suffered through numerous natural disasters associated with the drought, including crop production loss, severe wild fires, and flooding due to severe wild fires. (at p. 1) “D]rinking water supplies are threatened due to the culmination of the impacts of from the drought. (at p. 1) The “drought outlook from the National Weather Service Climate Prediction Center states that the drought will likely persist or intensify across much of New Mexico.” (at p. 2) “[F]ire conditions in many areas of the state reached critical stage last summer and may do so again...” (at p. 3) “[E]xtraordinary measures may be necessary to protect public health, ensure public safety and well being, and provide for the economic stability of the state.” (at p. 3) Whereas, the total water usage in 2014 for both the FCPP and the mine that supplies the coal to FCPP is 5,150,606,813 gallons and impact of water quantity and quality is another risk unexamined by PNM.

El Paso Electric cited risks associated with potential future environmental regulations as one of the reasons for abandoning FCPP and not signing the new coal contract that would start in 2016.¹⁴²

¹⁴⁰ Staff Exhibit #1, pg. 300 of 385; Ortiz Tr. 4/11/2016, pp. 148-152; NEE Exhibit #4;

¹⁴¹ Under 1.2.2.35 D. (1) the commission or presiding officer may take administrative notice of orders of other governmental agencies.

<http://www.governor.state.nm.us/uploads/FileLinks/5634a3c59b924b1ba8ca6072b986dc45/EO2012006.pdf>

¹⁴² NEE Exhibit #20, Van Winkle Direct, page 32

d. FCPP is Not an Appropriate Resource to meet Customer Load

As previously highlighted above in the discussion I., b, i and ii, PNM's customer requirements are becoming "peakier"¹⁴³ and need flexible resources to meet peak demands and declining energy sales. FCPP is not an appropriate resource to meet PNM's changing customer load profile. Mr. Olson testified that FCPP does not have quick start capability.¹⁴⁴ He further states that Luna and Afton have ramp rates 2-3 times faster than FCPP.¹⁴⁵

Unlike PV2, New Energy Economy is challenging operational efficiency of Four Corners. Mr. Olson claims in his direct testimony that FCPP reliability "performance is quite good".¹⁴⁶ However, when questioned about this in cross-examination, Mr. Olson did not know that the national average Equivalent Forced Outage Rate (EFOR)¹⁴⁷ for coal plants of similar size was 6.8%.¹⁴⁸ He did not know that the actual EFOR for FCPP for 2007-2014 was 15.4%.¹⁴⁹ He did not know that FCPP's performance was significantly worse than national averages for similar size coal plants.¹⁵⁰ He did acknowledge that EFOR in 2013 was 21.4% and in 2014 26.9%.¹⁵¹ Mr. Olson's original claim that FCPP performance is quite good is without basis in fact.

In addition to the poor EFOR performance at FCPP, the unrefuted testimony of Mr. Van Winkle is that: "PNM cannot count on FCPP to meet summertime demands. The actual FCPP output during summer peak demand hours (noon-6pm) has been 22% below capacity for 2009-

¹⁴³ 4/11/2016 TR., Ortiz, page 24

¹⁴⁴ 4/18/2016 TR., Olson, page 1420; 4/14/2016 TR., Taylor, page 1011("You never use a coal plant, I don't believe, for quick start. A coal unit cannot get up to speed fast enough for a quick start.")

¹⁴⁵ 4/18/2016 TR., Olson, pages 1422

¹⁴⁶ PNM Exhibit 40, Olson Rebuttal, pages 38-39

¹⁴⁷ EFOR means that something broke in the generation unit and it had to be shut down or de-rated to fix the problem. This is an unplanned event.

¹⁴⁸ 4/18/16 TR., Olson, page 1454

¹⁴⁹ 4/18/16 TR., Olson, page 1455

¹⁵⁰ 4/18/16 TR., Olson, page 1454

¹⁵¹ 4/18/16 TR., Olson, page 1454

14. The last two years output during these critical hours has been even worse, at 31% below capacity in 2013 and 2014. By comparison to another investor owned utility serving New Mexicans, Southwestern Public Service (SPS) coal plants operate within 3% of nameplate capacity in these same summer peak hours.”¹⁵² This means that PNM must run gas plants more or buy more energy from neighboring utilities to meet customer peak demands, thus increasing costs to ratepayers. It also means that the reliability of PNM’s 200 MW at FCPP is insufficient to be relied upon to serve customer summer peak demands. These two consequences of poor reliability at FCPP cause “unnecessary duplication and economic waste”. *See, State ex rel. Sandel v. NMPUC*, 980 P. 2d 55, 62-65 127 NM 272, 1999; § 62-8-1 NMSA (“Every rate made, demanded or received by any public utility shall be just and reasonable.”); § 62-8-2 NMSA (“Every public utility shall furnish adequate, efficient and reasonable service.”) The Commission must balance the interest of consumers and the interest of investors ... to the end that reasonable and proper services shall be available at fair, just and reasonable rates, ... without unnecessary duplication and economic waste. *In re Petition of PNM Gas Servs.*, supra, at 391, citing NMSA 1978, § 62-3-1(B); §62-3-2 A (2) NMSA (“It is the declared policy of the state” to provide service without “unnecessary duplication,” and “economic waste”.)

Four Corners coal plant is no longer used and useful because the capacity generated from this plant is not needed to meet customer load, it’s the wrong resource because its not flexible to meet the shift towards a “peakier” load profile, it underperforms and is unreliable during the times it is most needed by PNM for ratepayers. Case No. 1440, Order on Cost of Capital and Revenue Requirements 17-19 (12-29-78) (finding plant to no longer be used and useful because of reduced service to customers).

¹⁵² NEE Exhibit #20, Van Winkle Direct, pages 34-35

e. No Alternatives were Contemplated – PNM’s Myopic Decision Should Not be Rewarded.

PNM has presented no evidence that it contemplated alternatives that may have been more economic. Nationwide coal prices are declining because mines are shuttering and coal markets are plummeting, but PNM has burdened ratepayers with a 128% increase in coal costs, just at the same time when solar prices are declining. In April 2016, PNM filed testimony in NMPRC Case No. 16-00105-UT that it received levelized solar costs at less than 4 cents/kWh.¹⁵³ Gas prices have also been declining dramatically.¹⁵⁴ See, also, PNM Exhibit 72, declining gas prices, Energy Information Agency.

This Commission should contrast PNM’s non-assessment with how EPE approached the decision to stay or leave Four Corners. “EPE gave serious consideration to potential issues surrounding any new obligations or commitments to an extended term of operation beyond 2016. EPE explored alternatives through a competitive bidding process to sell its ownership interest without finding a potential buyer who would submit a bid for purchase. EPE also offered its ownership interest to the other co-participants in Four Corners, but none of these parties showed interest.”¹⁵⁵

Vice President of Regulatory Affairs, Mr. Ortiz revealed: “Whereas, EPE conducted an independent economic analysis in 2013 to determine whether to participate in an extended operating life of Four Corners beyond 2016 or whether to exit.”¹⁵⁶ EPE also conducted a Strategist[®] analysis and then updated it to account for more recent economic and market forces: “EPE’s proprietary Strategist analysis and discrete analysis performed in 2013 showed a net benefit of between \$10.8 million to \$24.1 million to exit Four Corners in July 2016. When

¹⁵³ 4/26/2016 TR., Van Winkle, page 3320

¹⁵⁴ 4/19/2016 TR., Eden, page 1725, 1728 (“gas prices are very low”)

¹⁵⁵ 4/11/2016 TR., Ortiz, page 155

¹⁵⁶ 4/11/2016 TR., Ortiz, page 155

updated to take into account the benefits of the sale and lower gas prices and forecasts, the updated economic analysis shows a net benefit of \$124.6 million dollars. EPE also performed a revenue requirement analysis showing the net benefits to customers of abandonment and sale to be in the range of \$110 million --.”¹⁵⁷

PNM has not satisfied its burden of proof of demonstrating that cost recovery of the Four Corners Coal Supply Agreement is cost-effective, prudent, reasonable, or in the public interest. PNM has not complied with a reasonable industry standard of care: to analyze the costs, risks and potential liabilities going forward before it committed to potentially obligating ratepayers to \$580 million until 2031.

IV. Balanced Draft is not a prudent or reasonable cost and should be denied

NEE opposes PNM’s request for cost recovery for “balanced draft” pollution controls; there has been no financial analysis to justify, support, or substantiate PNM's position. Nor is balanced draft required to meet environmental laws.

As Mr. Olson testifies, PNM did not do a cost-benefit analysis: “My testimony is we did not complete a cost-benefit analysis.”¹⁵⁸ Even though a cost-benefit analysis was not undertaken, Mr. Olson evidently knows that balanced draft technology is not a cost effective expenditure, as he testifies: “Q: You certainly indicate that any O&M savings would not account for the cost of balanced draft or not equate to the cost of balanced draft. A: Yes.”¹⁵⁹

Former PRC Commissioner, Dr. Howe, confirms that balanced draft is not cost-effective. “[T]he BDT¹⁶⁰ does not *ever* pay for itself....BDT does not break even for many decades....No

¹⁵⁷ 4/11/2016 TR., Ortiz, page 159

¹⁵⁸ 4/18/16 TR., Olson, p. 1380

¹⁵⁹ 4/18/16 TR., Olson, p. 1381

¹⁶⁰ BDT is an acronym for Balanced Draft Technology.

reasonable cogent, business plan or decision would entertain this kind of investment, regardless how long one expected the remaining two units of San Juan to operate.”¹⁶¹

Mr. Olson claims in his direct testimony (8/27/15, p. 24) that balanced draft is a requirement to clear air rules. However, this testimony directly contradicts the position of the New Mexico Environment Department, as stated by Richard Goodyear, Bureau Chief, Air Quality Bureau, NMED: “The balanced draft project is not a requirement of the proposed BART determination (State Alternative) and is not required, in general, by the Regional Haze regulation. . . . Please note that PNM’s assertion that the state of New Mexico required the balanced draft conversion is incorrect. PNM’s request to implement the balanced draft project was entirely voluntarily and only appears in the air quality permit because PNM requested the inclusion of the project in the air quality application.”¹⁶²

When PNM requested that balanced draft be included in the NMED permit, the San Juan plan was a four-unit scenario. However, when the RSIP was adopted and San Juan became a two-unit plan, Dr. Howe testifies: “PNM should have gone back to NMED, and said, Look, we don’t think that balanced draft is required anymore. Let’s take that out of this.”¹⁶³

In conclusion, PNM did not attempt to demonstrate the balanced draft costs met any cost-effectiveness test and NMED clearly states that PNM voluntarily requested that it be included in the NMED permit. The only rationale conclusion that one can come to regarding these costs are that they are not reasonable and prudent, and it is a blatant attempt by PNM increase its rate-base and thus, profits at the expense of rate-payers.

¹⁶¹ 1/29/16, Howe Direct, p. 13

¹⁶² NEE Exhibit 20, Van Winkle, DVW-31 (aka “The Goodyear email”)

¹⁶³ 4/25/16 TR., Howe p. 2632.

V. There has been No Showing that PNM’s proposed change in the Time of Use window is a Benefit to Ratepayers

PNM’s Aguirre acknowledged that encouraging residential customers to consume less energy during off-peak hours is a beneficial policy and it is one of the goals of Time Of Use (TOU) rates.¹⁶⁴ Under the current rates an average residential customer using 600 – 700 kilowatts can break even taking advantage of the TOU rates.¹⁶⁵ In the test period there are only 126 customers that take advantage of the TOU rates, which is less than one-tenth of one percent.¹⁶⁶ Under the proposed TOU rates, an average residential customer must use 1300 – 1400 kilowatts to break even.¹⁶⁷ The average kilowatt usage for residential customers in the north is 585 kilowatt hours per month¹⁶⁸ and in the south is 531 kilowatt hours per month.¹⁶⁹ For average residential customers using PNM’s proposed time-of-use rate they will not ever save money.¹⁷⁰

PNM has not done any recent study or analysis to discern how many customers are likely to make a shift to a TOU rate.¹⁷¹ The last “price elasticity study” was conducted before PNM filed its last rate case, 10-00086-UT.

The Albuquerque Bernalillo Water Utility Authority has the flexibility to pump water at cheap electricity times and store the water for later usage.¹⁷² Thus, they should be consulted to accommodate this energy shifting usage pattern.¹⁷³

PNM did not perform any cost-benefit analysis, the studies that PNM did perform are not in the record and occurred more than six years ago, and at no time is the proposed TOU rate a

¹⁶⁴ 4/22/2016 TR., Aguirre, p. 2411

¹⁶⁵ 4/22/2016 TR., Aguirre, p. 2427

¹⁶⁶ 4/22/2016 TR., Aguirre, p. 2427-2428, 2433-2434

¹⁶⁷ Mr. Van Winkle’s energy usage charts

¹⁶⁸ 4/22/2016 TR., Aguirre, p. 2427

¹⁶⁹ 4/22/2016 TR., Aguirre, p. 2428

¹⁷⁰ 4/22/2016 TR., Aguirre, p. 2428

¹⁷¹ 4/22/2016 TR., Aguirre, p. 2390

¹⁷² NEE Exhibit 20, Van Winkle, page 45

¹⁷³ NEE Exhibit 20, Van Winkle, page 45

benefit to PNM ratepayers. PNM's TOU rate should be denied because it is not a benefit to ratepayers.

VI. Return on Equity

NEE supports the testimony filed by Mr. Randall Woolridge, Professor of Finance at Pennsylvania State University, regarding the Return on Equity (ROE) for PNM of 9.00% and a rate of return or cost of capital of 7.42%.¹⁷⁴ Mr. Woolridge did a risk test and risk adjustment, accounting for utility size, relative to S&P and Moody's credit rating analysis.¹⁷⁵ Mr. Woolridge used a comparison of other electric utility groups.¹⁷⁶ (Staff's witness, Dr. Pitts, suggested similar ROE results when she made a relative appraisal.¹⁷⁷) Mr. Woolridge eloquently substantiates the errors with PNM's decision and concludes that PNM's analysis is lacking in substantiation ("investor behavior", capital market data, etc.).¹⁷⁸ PNM's methodology produces an inflated measure of risk because it misapplies historical information.¹⁷⁹

VII. LED Street Lighting

NEE supports the positions taken by the City of Albuquerque and County of Bernalillo. The City of Albuquerque is about to embark on an energy savings program that would replace converting about 17,000 City-owned standard street lighting to Light Emitting Diode ("LED") technology over the next 18 months. City-County Ex. 15 (Gurule Rebuttal), p. 9. Anticipated energy savings will be from 48 to 56 percent. *Id.* at pp. 9-10. The conversion will also result in increased public safety by communicating street light outages and provide other multiple functions. The City's proposal will result in energy savings, and would achieve the goal of

¹⁷⁴ NMAG Exhibit 8, Woolridge direct, page 5

¹⁷⁵ 4/27/2016 TR., Woolridge, p. 3063

¹⁷⁶ 4/27/2016 TR., Woolridge, pp. 3066, 3067

¹⁷⁷ 4/27/2016 TR., Woolridge, pp. 3067, 3068s

¹⁷⁸ NMAG Exhibit 8, Woolridge direct, page 7-10

¹⁷⁹ *Ibid.*

having the municipality pay for 100% of its volumetric use, without being penalized by having to pay fixed charges for non-volumetric based use or paying charges for saving energy to make up for lost revenue.

VIII. Fixed Residential Fee

PNM proposes to increase the residential fixed customer fee from \$5.00/month (\$60.00/year) to \$13.14/month (\$157.68/year), an increase of 163%.¹⁸⁰

Since early 2008, the cost of electricity per kWh provided by PNM to its retail customers has increased by approximately 50%, while New Mexico real median household incomes have declined by 6.4% since 2008.¹⁸¹ PNM ongoing earnings have increased by 461% from 2008 to 2014.¹⁸²

As Mr. Van Winkle summarized: “I would prefer a lower customer fee, because the higher volumetric charges you have, the more opportunity or motivation customers have for conservation or energy efficiency implementation.”¹⁸³

WHEREFORE, New Energy Economy respectfully requests this Commission deny PNM’s request for PV2 because PNM has failed to meet its burden of proof. PNM’s credibility has been thoroughly impeached because of its failure to provide any economic analysis to justify the cost-effectiveness of PV2; failure to adequately forecast and assess price, risk, and regulatory exposure; and general lack of transparency, consistency, and trustworthiness. PNM’s request for cost recovery for the acquisition of PV2, when it is not the most economic or efficient resource portfolio for New Mexico ratepayers, and is not an appropriate fit to meet customer load, ignores the public interest.

¹⁸⁰ 4/21/2016 TR., Chan, p. 2122; NEE Exhibit 20, Van Winkle direct, page 15

¹⁸¹ 4/28/2016 TR., Van Winkle, p. 3326, 3328; NEE Exhibit 20, Van Winkle direct, page 16

¹⁸² 4/21/2016 TR., Chan, p. 2129; NEE Exhibit 20, Van Winkle direct, page 4

¹⁸³ 4/28/2016 TR., Van Winkle, p. 3328

New Energy Economy respectfully requests this Commission also deny PNM's request for cost recovery for the coal contract at Four Corners and balanced draft technology because PNM has failed to meet its burden of proof. There is no evidence in the record, other than self-serving statements, that substantiates that these costs are prudent and reasonable and in accord with the standard of care, which a reasonable person would be expected to exercise under the same circumstances. PNM appears to be locked into a business construct of high-risk coal pursuits despite the opportunity of available and affordable New Mexico solar and wind, that would also create thousands of new jobs, attract clean energy businesses who want to take advantage of the solar and wind potential, reduce waste and pollution, recharge the economy, minimize water consumption, and create a more diverse and less vulnerable financial energy system. Renewables do not involve massive use of New Mexico's limited water supply as do coal and nuclear.

PNM continues to invest in coal despite that it is at odds with the public interest. It would rather invest in pollution controls for coal, whether at Four Corners with SCR, or at San Juan Generating Station with balanced draft, because they are capital investments, which enjoy a return on equity, than switch to the long term benefits of solar and wind which have minimal long-term capital expenditure risks. In the case of Four Corners, PNM already has an unreliable plant that requires a constant infusion of capital just to maintain it.

PNM's requests for cost recovery are unreasonable in that they will effectively wed PNM to more coal and more nuclear at antiquated facilities when other utilities in the United States are reducing their use of coal and nuclear in favor of new highly efficient solar and wind, augmented by gas for economic, health, moral, and environmental reasons.

PNM's Time-of-Use rate design is an attempt at a pricing strategy where the utility may vary the price depending on the time-of-day when the service is provided allegedly to provide a price signal that alters customer behavior. However, evidence in the case herein, shows that PNM has not done its homework and that the TOU it has presented will not result in any consumer benefit; only rate increases and shareholder benefit. There is no evidence that PNM's TOU proposal will reduce electric consumption, reduce peak load, or alter ratepayer behavior and therefore this scheme should be denied.

Given PNM's criterion for investment decisions, which is to maximize capital expenditures, which maximizes their guaranteed return on equity, the Commission must carefully regulate PNM and scrutinize their numbers. Here, PNM has submitted an Application, direct, rebuttal, supplemental testimony and after all that couldn't correctly apprise the Commission of something as basic as the net book value of PV2. PNM's credibility has been impeached and their figures and decisions cannot be given credence or be trusted.

PNM has the burden of proof to show that these costs are reasonable and prudent. There is no proof in the record to justify their decisions, because they didn't do any contemporaneous meaningful analysis whatsoever. And, in fact, the unchallenged evidence offered by New Energy Economy and other Intervenors indicates that PNM's investments in PV2, the extended coal contract, balanced draft technology, and other policy changes as more fully described above are in fact unreasonable and imprudent.

Dated this 23rd day of May, 2015.

Respectfully submitted,
New Energy Economy

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