

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF PROTESTS TO)
PUBLIC SERVICE COMPANY OF)
NEW MEXICO'S 2017 INTEGRATED)
RESOURCE PLAN)**
_____)

Case No. 17-00174-UT

DIRECT TESTIMONY

AND EXHIBITS

OF

CAITLIN LIOTIRIS

ON BEHALF OF

INTERWEST ENERGY ALLIANCE

May 4, 2018

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I. WITNESS INTRODUCTION

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Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Caitlin Liotiris, 215 South State Street, Suite 200, Salt Lake City, Utah, 84111.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am a Principal with the firm of Energy Strategies, LLC. Energy Strategies is a private consulting firm specializing in economic and policy analysis applicable to energy production, transportation, and consumption.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying on behalf of Interwest Energy Alliance (“Interwest”). Interwest is a non-profit trade association that brings the nation’s renewable energy industry together with the West’s advocacy community in a consensus-based, collaborative approach to market development in six Western states: Arizona, Colorado, New Mexico, Nevada, Utah and Wyoming.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. My academic background is in economics, and I have completed my Masters of Science in Economics at the University of Utah and my Bachelors of Arts in Economics at Westminster College. I began working for Energy Strategies in 2006, where I assist clients in the areas of energy-related economic and policy analysis. In that capacity, I have evaluated various energy and transmission projects on behalf on multiple clients and frequently participate in regional market and policy forums. During my career, I have assisted many generation developers in evaluating projects for submission into competitive solicitations, including conducting analysis on how the projects can achieve

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1 the procurement process's specific requirements. I have also participated in various
2 planning processes for utility generation and transmission. My Curriculum Vitae is
3 included as Exhibit CCL-1.

4 **Q. HAVE YOU TESTIFIED BEFORE ANY REGULATORY AUTHORITIES?**

5 A. Yes. I have testified before the Public Utilities Commission of Nevada in 2016. In
6 addition to involvement in numerous cases at the Federal Energy Regulatory
7 Commission, I have supported the development of testimony before other regulatory
8 authorities.

9 **Q. WHAT EXHIBITS DO YOU SPONSOR AS PART OF YOUR TESTIMONY?**

10 A. I sponsor the following Exhibits:

- 11 • Exhibit CCL-1: my Curriculum Vitae;
- 12 • Exhibit CCL-2: Public Service Company of New Mexico's Objections and
13 Responses to Interwest Energy Alliance's First Set of Interrogatories and
14 Requests for Production, nos. IEA 1-1, IEA 1-2, IEA 1-4, and IEA 1-6;
- 15 • Exhibit CCL-3: Best Practices in Electric Utility Integrated Resource
16 Planning: Examples of State Regulations and Recent Utility Plans
- 17 • Exhibit CCL-4: The Future of Electricity Resource Planning
- 18 • Exhibit CCL-5: Competitive Procurement of Retail Electricity Supply: Recent
19 Trends in State Policies and Utility Practices
- 20 • Exhibit CCL-6: PNM Non-Disclosure Agreement

21 **Q. WERE THE EXHIBITS PREPARED BY YOU OR UNDER YOUR DIRECT**
22 **SUPERVISION AND CONTROL?**

23 A. Yes, Exhibit CCL-1 was prepared by me. Exhibits CCL-2, CCL-3, CCL-4, CCL-5 and
24 CCL-6 are copies of documents that were prepared by others.

25 **Q. ARE THE EXHIBITS TRUE AND CORRECT COPIES OF THE DOCUMENTS**
26 **YOU DESCRIBE IN YOUR TESTIMONY?**

27 A. Yes.

28 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

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1 A. The purpose of my testimony is to provide Interwest’s position on the 2017 Integrated
2 Resources Plan (“IRP”) filed by Public Service Company of New Mexico (“PNM”) and
3 to provide input on whether PNM’s 2017 IRP complied with the objective of the
4 Commission’s IRP rule “to identify the most cost effective portfolio of resources” and to
5 provide some best practices which should be used by PNM to continue to improve its
6 compliance with the Commission’s IRP rule in a more fair and transparent manner in the
7 future.

8 **Q. PLEASE DESCRIBE INTERWEST’S INTEREST IN THIS PROCEEDING.**

9 A. Interwest is a non-profit trade association that works to promote renewable energy in
10 New Mexico and other Western states. Interwest is an intervenor in this proceeding.

11 **Q. PLEASE SUMMARIZE INTERWEST’S POSITION ON PNM’S IRP.**

12 A. PNM’s IRP is generally consistent with statutory and regulatory requirements.
13 Interwest’s concerns are with development and implementation of the IRP through a fair
14 and transparent process which evaluates alternative resources on a consistent and
15 comparable basis as required by the Efficient Use of Energy Act (“EUEA”), NMSA 1978
16 Section 62-17-10. Greater transparency and implementation of several best practices will
17 make the IRP, and resulting competitive resource procurement process, more robust and
18 more likely to obtain the most cost-effective resources while taking risk, reliability, price
19 volatility, and environmental concerns into account to fulfil the IRP goals.

20 As I discuss in my testimony, Interwest encourages PNM to incorporate best
21 practices for IRP planning in future IRPs and, importantly, in implementing the IRP
22 through the Four-Year Action Plan, particularly with respect to Requests for Proposals
23 (“RFP”) to evaluate and select specific resources to fulfill the goals of the IRP. Interwest

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1 recommends the Commission find that PNM’s 2017 IRP is sufficiently compliant but its
2 IRP process and IRP implementation should be improved by incorporation of the best
3 practices I discuss below.

II. OVERVIEW

4
5 **Q. PLEASE EXPLAIN THE REQUIREMENTS WITH WHICH PNM’S IRP MUST**
6 **COMPLY.**

7 A. I understand that the Efficient Use of Energy Act (“EUEA”) requires public utilities such
8 as PNM to periodically prepare and file an IRP in order to identify the most cost-effective
9 portfolio (“MCEP”) of resources to supply the energy needs of customers. Section 62-17-
10 10 of the EUEA provides the IRP:

11 shall evaluate renewable energy, energy efficiency, load management,
12 distributed generation and conventional supply-side resources on a
13 consistent and comparable basis and take into consideration risk and
14 uncertainty of fuel supply, price volatility and costs of any anticipated
15 environmental regulations in order to identify the most cost-effective
16 portfolio of resources to supply the energy needs of customers.
17

18 I also understand the Commission’s IRP Rule for electric utilities, 17.7.3 NMAC,
19 sets forth the Commission’s requirements for, among other things, the contents of IRP
20 reports, description of existing resources, current load forecasts, load and resources table,
21 identification of resource options, determination of the MCEP and alternative portfolios,
22 the public advisory process, and the utility’s action plan to implement the IRP. Section
23 17.7.3.6 of the IRP Rule provides that, for resources whose costs and service quality are
24 equivalent, the utility should prefer resources that minimize environmental effects. The
25 IRP Rule requires the utility to take a long-term 20-year planning approach as well as a
26 near-term implementation approach through a Four-Year Action Plan.

27 **Q. PLEASE EXPLAIN THE SCOPE OF THIS PROCEEDING.**

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1 A. The Hearing Examiner explained the scope of this proceeding in the Order Determining
2 Scope of Proceeding and Setting Prehearing Conference issued on January 16, 2018
3 (“Scoping Order”). The Hearing Examiner found that the legal requirements in the EUEA
4 and the Commission’s IRP Rule frame the appropriate scope of this case. The Hearing
5 Examiner explained that an IRP is the result of a process, and that process should be
6 examined in this proceeding to ensure that available resources are evaluated fairly and
7 transparently.¹

8 **Q. PLEASE SUMMARIZE PNM’S IRP PROCESS AND CONCLUSIONS.**

9 A. PNM’s IRP Report states that PNM initiated its IRP public advisory process in 2016,
10 held 17 public advisory meetings statewide, collected input from hundreds of
11 stakeholders, assessed its existing resources and its forecast load, identified numerous
12 alternative future resource scenarios, and ran thousands of modeling runs to assess
13 various scenarios to determine its MCEP. PNM filed its IRP Report at the Commission
14 on July 3, 2017.

15 The IRP Report identifies the MCEP to include, by 2022, retiring PNM’s
16 remaining capacity in the coal-fired San Juan Generating Station (“SJGS”), retaining
17 PNM’s leases in the Palo Verde Nuclear Generating Station (“PVNGS”), and replacing
18 SJGS with renewable resources, natural gas peaking capacity, and potentially energy
19 storage. In addition, PNM proposes that, after 2022, it will build new transmission to
20 transmit wind energy from Eastern New Mexico, meet load growth with additional
21 renewable energy, gas peaking or energy storage, replace the existing Valencia power

¹ Scoping Order at 25.

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1 purchase agreement in 2028, and pursue replacement of the Four Corners coal plant in
2 2031.

3 Importantly, as part of its IRP, PNM proposes a Four-Year Action Plan that
4 includes, among other things, Renewable Portfolio Standard (“RPS”) compliance,
5 resources for data center customer growth, assessing costs and benefits of joining the
6 California Independent System Operator (“CAISO”) operated Western Energy Imbalance
7 Market (“EIM”), abandonment of PNM’s share of SJGS, identification of replacement
8 resources through an All-Source RFP, and assessing potential to expand the electric
9 transmission system to enable integration of more wind resources from Eastern New
10 Mexico.² Importantly, as part of the Four-Year Action Plan PNM commits to issuance of
11 an RFP for “energy storage, renewable energy, and flexible natural gas resources to
12 confirm the assumptions and analysis results in its IRP and to further refine the mix of
13 replacement resources assuming SJGS retires in 2022.”³ The RFP was issued on October
14 27, 2017⁴ but bid evaluation has not yet concluded. PNM had identified March 30, 2018
15 as a target date for identifying a short list of bidders from this RFP, but that date has been
16 pushed back. PNM now plans to continue to work with bidders on clarifying questions
17 and will notify bidders of their status over the next several months.⁵

18 **Q. DOES INTERWEST OBJECT TO PNM’S IRP CONCLUSIONS?**

19 A. No. My testimony focuses on IRP planning and implementation through the Four-Year
20 Action Plan.

² IRP Report at 4, and 147-48.

³ *Id.*

⁴ O’Connell Direct at 9.

⁵ PNM Response to IEA 1-6, attached in Exhibit CCL-2.

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1 **Q. IS THE FOUR-YEAR ACTION PLAN AN IMPORTANT PART OF THE IRP**
2 **PROCESS?**

3 A. Yes, it is. Section 17.7.3 NMAC of the IRP Rule requires utilities to develop and
4 implement a Four-Year Action Plan as part of its IRP. As PNM notes in the Direct
5 Testimony of Patrick J. O’Connell, the Four-Year Action Plan is a “near-term roadmap”
6 that “orients future resource acquisitions in the direction of the MCEP” and “informs the
7 Commission of the concrete steps the utility intends to take in the immediate future.”⁶
8 Interwest agrees with PNM that the Four-Year Action Plan is a “significant component of
9 the IRP.”⁷ Appropriate implementation of the Four-Year Action Plan is necessary to
10 ensure that the most cost-effective resources are procured for PNM’s customers.

11 **Q. DO YOU OBJECT TO PNM’S FOUR-YEAR ACTION PLAN?**

12 A. No. Interwest supports the Four-Year Action Plan and seeks to encourage prompt
13 implementation of the Four-Year Action Plan to take advantage of federal tax credit
14 opportunities, which are in the process of being phased out or reduced. Interwest also
15 supports PNM’s continued evaluation of regional grid participation, including
16 participation in the EIM, and coordinated transmission planning, which can take several
17 years.

18 **Q. DO YOU HAVE CONCERNS WITH PNM’S IRP PLANNING AND RESOURCE**
19 **SELECTION PROCESS TO IMPLEMENT THE IRP?**

20 A. Yes, I am concerned about the fairness and transparency of PNM’s process for
21 identifying and evaluating resources to select the most cost-effective resources to achieve
22 PNM’s Four-Year Action Plan. Additionally, while the implementation process should

⁶ O’Connell Direct at 6.

⁷ *Id.* at 12.

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1 proceed expeditiously to provide PNM customers with the greatest likelihood of securing
2 federal tax credits and their associated benefits for ratepayers, future resource
3 procurement processes should be improved upon to further PNM’s ability to achieve the
4 MCEP that truly minimizes ratepayer costs and appropriately balances risks.

5 **Q. ARE FAIRNESS AND TRANSPARENCY IMPORTANT IN EVALUATING**
6 **AVAILABLE RESOURCES?**

7 A. Yes. The EUEA and the IRP Rule require that resource alternatives be considered on a
8 “consistent and comparable basis” and emphasize the importance of public disclosure and
9 input.⁸ The Scoping Order in this proceeding further emphasizes the importance of a fair
10 evaluation with sufficient transparency in the IRP process.⁹ Not ensuring sufficient
11 fairness and transparency in evaluation and selection of resources could inadvertently
12 discriminate against or eliminate beneficial resources available to serve customers’
13 energy needs. Accordingly, resources should be compared on a consistent and
14 comparable basis as part of the IRP development, and through the implementation of the
15 Four-Year Action plan, including any resulting RFPs to select resources to fulfill IRP
16 needs.

17 **Q. DO YOU HAVE RECOMMENDATIONS TO HELP ENSURE A UTILITY’S**
18 **EVALUATION PROCESS IS FAIR AND TRANSPARENT?**

19 A. Yes. As I explain below, there are many best practices to ensure a fair and transparent
20 IRP development and implementation process, and which also assist in identifying the
21 most cost-effective resources.

⁸ NMSA 1978, § 62-17-10, and 17.7.3.9G(1) NMAC.

⁹ Scoping Order at 25.

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1 **Q. YOU ALSO STATED THAT THE IRP IMPLEMENTATION PROCESS**
2 **SHOULD PROCEED EXPEDITIOUSLY. PLEASE EXPLAIN YOUR CONCERN.**

3 A. In order to secure the most cost-effective resources, PNM’s Four-Year Action Plan needs
4 to move expeditiously to capture immediate opportunities such as the expiring wind
5 Production Tax Credit (“PTC”) and declining solar Investment Tax Credit (“ITC”).
6 Additionally, benefits for customers could be captured by promptly evaluating
7 participation in a regional energy market such as the EIM and expansion of transmission
8 capacity to bring online high-quality renewable resources from eastern New Mexico.

9 In implementing the Four-Year Action Plan, PNM should move forward with its
10 RFP in a fair and transparent manner as expeditiously as possible in order to capture PTC
11 and ITC cost savings for customers and, thereby, ensure it achieves the most cost-
12 effective resources.

13 Transmission expansion can take years of planning and development to come to
14 fruition, but to secure the most cost-effective mix of resources are procured when the
15 IRP’s Four-Year Action Plan is implemented, PNM should consider accelerating
16 construction of the transmission line from Clines Corners to Bernalillo-Algodones (BA),
17 and the associated delivery of energy, to benefit its electricity customers and maximize
18 the benefits of federal tax credits for renewable energy.

19 **III. BEST PRACTICES TO ENSURE FAIR AND TRANSPARENT IRP PROCESS**

20 **Q. HAVE BEST PRACTICES FOR THE IRP PROCESS BEEN RECOGNIZED?**

21 A. Yes. There are a variety of analyses suggesting best practices and recommendations for a
22 fair and transparent IRP process. Several reputable research institutions have published
23 IRP suggestions and best-practices for the electric sector, many of which review state and

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1 utility practices to identify those which are considered best practices and/or emerging
2 practices that are becoming more important in the evolving electric industry. For
3 instance, the Regulatory Assistance Project (“RAP”) has published reports on IRP best
4 practices, including the 2013 “Best Practices in Electric Utility Integrated Resource
5 Planning”¹⁰ which looks at several utility resource plan examples. The RAP Report is
6 included as Exhibit CCL-3 and was prepared by Synapse Energy Economics for RAP. In
7 addition, the Lawrence Berkeley National Laboratory (“LBNL”) has issued a number of
8 reports related to electric utility resource planning and resulting generation procurement,
9 including a 2016 report on the “Future of Electricity Resource Planning” which
10 highlights ten emerging resource planning needs for regulators to consider. The LBNL
11 Report is included as Exhibit CCL-4.¹¹

12 Moreover, there are best practices for implementing IRPs that result in a need for
13 new generation procurement. These best practices often focus on ensuring that
14 competitive procurement processes, which may result from an IRP-identified need, are as
15 competitive as possible and, therefore, most likely to result in the selection of the most
16 cost-effective resources. The Analysis Group prepared a report at the request of the
17 National Association of Regulatory Utility Commissioners (“NARUC”).¹² This 2008
18 report discusses competitive procurement of electricity supply and provides guidance for
19 states in determining the appropriate rules of and regulations affecting competitive

¹⁰ RAP (and Synapse Energy Economics). Wilson, Rachel and Biewald, Bruce. *Best Practices in Electric Utility Integrated Resource Planning: Examples of State Regulations and Recent Utility Plans*. June 2013. Attached as Exhibit CCL-3

¹¹ LBNL, Kahl, et al. *Future of Electric Utility Regulation: The Future of Electricity Resource Planning*. September 2016. LBNL-1006269. Attached as Exhibit CCL-4.

¹² The Analysis Group. Tierney, et. al. *Competitive Procurement of Retail Electricity Supply: Recent Trends in State Policies and Utility Practices*. July 2008. Attached as Exhibit CCL-5.

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1 resource procurement (e.g., RFPs). The Analysis Group Report is included as Exhibit
2 CCL-5.

3 These are all useful reference points as the Commission considers whether PNM
4 has complied with the IRP Rule and its objectives of identifying the MCEP and
5 implementing it through the Four-Year Action Plan. Best practices for identifying and
6 implementing the MCEP will shift as the industry continues to evolve. Therefore, the
7 Commission and PNM should continue to consider ways to enhance the IRP process and
8 best achieve the IRP Rule objectives going forward and to best ensure a fair and
9 transparent process.

10 **Q. PLEASE DESCRIBE THESE BEST PRACTICES AT A HIGH LEVEL.**

11 A. There are a variety of documents that provide best practices and recommendations for
12 resource planning and resulting procurement.¹³ A review of these reports can help
13 stakeholders and the Commission consider where PNM implements best practices and
14 where practices can be improved to better achieve the objective of the IRP Rule and to
15 ensure resources are fairly evaluated in the IRP process.

16 Below I provide a high-level overview of some of the best practices from several
17 of these reports. Additional details on these three reports, including summaries of some
18 of the reports' recommendations and areas of discussion, are provided in subsequent
19 sections of my testimony.

20 The RAP's Report, Exhibit CCL-3, focuses on elements that are necessary for a
21 successful utility resource plan. The Report recommends best practices which include:

¹³ For example, LBNL's Electricity Markets & Policy Group has a series of reports on resource planning practices and trends, which can be found here: <https://emp.lbl.gov/projects/utility-resource-planning>. And the National Renewable Energy Laboratory has a variety of reports including *Variable Renewable Energy in Long-Term Planning Models: A Multi-Model Perspective* which can be found here: <https://www.nrel.gov/docs/fy18osti/70528.pdf>.

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- 1 • studying a range of possible load forecasts;
- 2 • thorough review of reserves and reliability;
- 3 • creating levelized cost curves for demand-side resources to ensure comparable
- 4 treatment with supply-side resources;
- 5 • evaluating a full range of supply alternatives (including those which are not
- 6 currently feasible from a cost perspective);
- 7 • use of reasonable, recent and consistent fuel price projections;
- 8 • consideration of environmental cost and constraints and compliance strategy
- 9 scenarios;
- 10 • considering modification and retirement of existing resources;
- 11 • not constraining optimization models;
- 12 • considering a sufficiently long study period;
- 13 • testing uncertainty including through probabilistic techniques;
- 14 • applying reasonably transparent metrics for selecting resource plans;
- 15 • containing a near-term action plan; and
- 16 • properly documenting the inputs and results with full technical details.

17 LBNL’s “Future of Electricity Resources Planning,” Exhibit CCL-4, outlines
18 emerging needs and IRP best practices that regulators should consider. These emerging
19 needs include:

- 20 • more integrated approaches to resource evaluation and acquisition;
- 21 • more comprehensive considerations of investment drivers;
- 22 • more accurate representation of solar and wind generation in resource
- 23 planning models;
- 24 • balancing precision and transparency in resource planning models; and
- 25 • regional coordination in resource planning.

26 In addition to best practices for developing the IRP, implementation of the IRP’s
27 results is critical to ensuring the most cost-effective portfolio of resources is procured. As
28 with IRP development, there are a number of analyses that help provide best practices for
29 procurement of resources. The Analysis Group’s Report, Exhibit CCL-5, highlights that
30 there are practices which can increase the likelihood that the most cost-effective

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1 resources are selected as part of a competitive procurement (which may result from an
2 IRP).¹⁴ These include:

- 3 • involvement of a third-party independent monitor/independent evaluator
- 4 • measures to increase transparency of the procurement process to market
- 5 participants and the public;
- 6 • providing potential bidders with detailed information needed to prepare
- 7 competitive bids,
- 8 • careful disclosure and review of how “non-price” factors are considered and
- 9 evaluated, among others.

10 **Q. CAN YOU DESCRIBE SOME OF THE BEST PRACTICES IN THE RAP**
11 **REPORT IN MORE DETAIL?**

12 A: Yes. Some additional details surrounding several of the best practices in the RAP report
13 are included below.

14 *1. Load Forecasting*

15 Load forecasts are critically important to the IRP process. They are one of the primary
16 determinants of the need for new resources and also drive the quantity and type of new
17 resources which may be selected. Load forecasts also drive the timing of resource
18 additions and retirements. Best practices for load forecasting include starting with
19 realistic assumptions about population and economic factors and providing
20 documentation on these assumptions. A range of possible load forecasts should be
21 studied.

22 *2. Supply options*

23 A full range of supply-side alternatives should be considered. The IRP should utilize
24 reasonable assumptions about the costs, performance, and availability of each resource.
25 Best practices suggest modeling a range of costs and construction lead-times to account

¹⁴ The Analysis Group Report (2008). Exhibit CCL-5.

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1 for uncertainty. Additionally, resources that are not feasible from a cost perspective at the
2 current time should be modeled, as they may become more cost-effective after the
3 planning period.

4 *3. Existing resources*

5 In addition to an evaluation of supply-side resources, IRPs should consider modifications
6 to existing resources (such as those which may be necessary for environmental
7 compliance) and the retirement of existing resources to determine the optimum resource
8 portfolio.

9 *4. Integrated analysis (and allowing resource optimization)*

10 In considering resource options, utilities often rely on a variety of modeling tools. It is
11 important that the model not exclude combinations of options which deserve
12 consideration and may be the most cost-effective. There are things that should be avoided
13 in modeling to ensure this does not occur. For instance, the future resource portfolios can
14 be user-defined, rather than selected by a model. User-defined portfolios are *not* a best
15 practice. Additionally, in some IRPs the models are constrained from selecting the
16 optimal quantity of a specific resource. For instance, constraining the amount of a certain
17 type of generation which can be picked over the time horizon (such as limiting the model
18 to 100 MW of wind) is *not* a best practice. Rather, it is preferable to allow the model to
19 select the optimal quantity of resources, rather than artificially limiting resource selection
20 and resource combinations which deserve consideration.

21 *5. Valuing and Selecting Plans*

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1 The present value of revenue requirement may be the primary metric for evaluating and
2 selecting plans, but a best practice is to consider additional factors such as: environmental
3 cost/impact, fuel diversity, reliability impact, rate increases over time, and risk.

4 *6. Action Plan*

5 IRPs should include a thorough discussion of the steps to implement, acquire, or
6 construct resources to meet energy and demand needs over the upcoming three- to five-
7 year period. It is prudent for utilities to describe the ways they will acquire near-term
8 resources within the IRP.

9 *7. Documentation*

10 IRPs should include discussion of the inputs, results, and appendices with full technical
11 details. Confidential information should be limited to truly sensitive business
12 information, as excessive confidential treatment of materials can hinder the stakeholder
13 input process.

14 **Q. CAN YOU DESCRIBE SOME OF THE EMERGING BEST PRACTICES IN THE**
15 **LBNL REPORT IN MORE DETAIL?**

16 **A:** Yes. Additional details surrounding several of the emerging best practices in the LBNL
17 report are included below.

18 *1. Integrated approaches to resource evaluation and acquisition*

19 The rapid pace of change in the electric industry necessitates careful coordination of how
20 resources are evaluated in the IRP process and also how they are acquired through the
21 RFP process. At a minimum, it is important that the methodologies used in the IRP
22 process are consistent with those used to evaluate resources for procurement purposes.
23 Even if key inputs (*i.e.*, capital costs, PTC assumptions) change between IRP

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1 development and RFP bid evaluation, the methodology should not change. This not only
2 ensures a fair process, but also allows for transparency in resource acquisition decisions.

3 *2. Comprehensive consideration of investment drivers*

4 Drivers of utility investment are no longer simply a function of resource adequacy.
5 Utilities today are making investment decisions based on cost of energy, compliance with
6 environmental regulation and public policy requirements, as well as risk management
7 strategies. Notably, drivers have become more complex and certain cost components
8 have critical timing elements that should be considered. Utilities should evaluate a broad
9 range of investment drivers through the IRP process.

10 Federal tax incentives are one example of an investment driver (which aren't
11 specifically referred to in the LBNL study). Federal tax credits for renewable energy are
12 important incentives and investment drivers that should be considered as part of a
13 comprehensive review of investment drivers. The federal PTC and ITC vary over time,
14 with known changes in the level of the tax credits occurring over the coming years. The
15 timing requirements to secure the maximum amount of those tax credits are one example
16 of an important investment driver which should be thoroughly evaluated in utility
17 resource planning. Other utilities in the Western Interconnection recognize this limited-
18 time opportunity and have moved expeditiously to secure those benefits for their
19 customers.

20 *3. Accurate representation of solar and wind generation in resource planning*
21 *models*

22 Many utilities are still unable to adequately model the operating characteristics of
23 variable energy resources such as solar and wind. In turn, this limits a utility's ability to

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1 take full advantage of a zero-emitting, low cost resource. IRP modeling capabilities need
2 to include robust and frequently updated capacity values and integration costs that change
3 with increased penetration of variable energy resources a utility’s portfolio.

4 *4. Balancing precision and transparency in resource planning models*

5 Improvements in data collection including sub-hourly modeling capabilities will be
6 critical for future IRPs so that the near-term action plan is designed to most closely
7 represent a true MCEP. State regulators can support this best practice by continuing to
8 require transparency of all inputs and methodologies used to develop the MCEP.

9 *5. Regional coordination in resource planning*

10 It is well-documented that regional coordination (including Regional Transmission
11 Organization or “RTO” formation) is beneficial for efficiently integrating renewable
12 energy. LBNL suggests there may be good reason for a regionally coordinated approach
13 to resource planning. This may include exploration of RTO and other market options,
14 such as the EIM, as part of a resource planning process. It can also be extended to include
15 more formal regional capacity discussions with utility neighbors and the exploration of
16 transmission solutions which may better facilitate resource coordination. Additionally,
17 merchant transmission developers that are actively developing projects to integrate
18 renewables into the system should work in close coordination with utilities so that these
19 projects, and the potentially regionally diverse resources they enable, may be evaluated in
20 the IRP process.

21 **Q. CAN YOU DESCRIBE THE BEST PRACTICES AND GUIDANCE FOR**
22 **IMPLEMENTING THE IRP THROUGH COMPETITIVE RESOURCE**
23 **PROCUREMENT AS DESCRIBED IN THE ANALYSIS GROUP REPORT?**

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1 A: Yes. The Analysis Group Report provides guidance for states in determining the
2 appropriate role and regulations surrounding competitive procurement. It highlights the
3 importance of a transparent competitive procurement process. The Report recognizes that
4 competitive procurements must be “designed and implemented in a manner that fosters
5 competition among market participants.”¹⁵ Several best practices are discussed in the
6 Report, which may help foster a more transparent and competitive procurement process.

7 To support competition among market participants, the Analysis Group Report
8 suggests certain criteria must be achieved. The Report states that “ensuring a fair and
9 objective process will encourage supplier participation by giving market participants
10 confidence that their offers will be considered fairly against all other offers...”¹⁶ A fair
11 and objective procurement process is facilitated by the use of various safeguards in the
12 procurement process, which can be facilitated by the active involvement of an
13 independent monitor of the procurement process, often called an Independent Evaluator
14 (“IE”).

15 1. *Independent monitor or IE*

16 IEs can have a variety of roles and responsibilities. Roles of an IE may include:
17 reviewing preliminary procurement documents, overseeing communications with bidders,
18 reviewing bid evaluation methodology, carrying out parallel independent bid evaluations,
19 monitoring contract negotiations, and reporting back to the commission staff on the
20 process and results.¹⁷ Having an IE perform these functions can benefit the procurement
21 process, particularly in helping to ensure process fairness and objectivity. The Analysis
22 Group report points out that IE can improve the quality of the procurement results, but to

¹⁵ The Analysis Group Report, page I. Exhibit CCL-5.

¹⁶ The Analysis Group report, page 15. Exhibit CCL-5

¹⁷ The Analysis Group report, page 21 and Appendix A outline some of these roles. Exhibit CCL-5.

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1 achieve these benefits there needs to be a “degree of separation between independent
2 monitors and the utilities they are overseeing.”¹⁸ The Report points out that decisions
3 about who selects the IE and to whom they report may affect the ability to achieve the
4 benefits associated with IEs. Of course, while IEs can offer significant benefits, there are
5 costs associated with their use that must be considered in determining whether this
6 practice should be incorporated.

7 *2. Stakeholder involvement in the solicitation process*

8 The Analysis Group Report also notes that a fair and objective process can be
9 facilitated through participation of various parties in the competitive solicitation process,
10 including by reviewing and commenting on the draft RFP instruments. Suppliers,
11 commissions, the public, and IEs are all important stakeholders that can help ensure a fair
12 and transparent procurement process. Encouraging their participation early in the process
13 can reduce the likelihood of regulatory disputes later on. The Analysis Group Report
14 discusses potential public participation in the solicitation process and notes that providing
15 the opportunity for these stakeholders to comment on the draft RFP documents and
16 design process can also help mitigate improper biasing of the procurement outcome.
17 Providing bidders with detailed information needed to prepare bids, and doing so early
18 on, can also help increase the quality of the bids received and may support a more
19 competitive outcome.

20 *3. Disclosure and review of non-price factors*

21 The Analysis Group also explains non-price considerations factor into the
22 procurement process, including the importance of tradeoffs of having explicit scores and

¹⁸ The Analysis Group report, page 22. Exhibit CCL-5.

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1 weights for non-price criteria compared to the flexibility provided by simply listing the
2 non-price factors that will be considered in the procurement process and the importance
3 of regulatory scrutiny in how those non-monetized criteria are used. In some instances,
4 non-price factors are used as threshold eligibility requirements for participation the
5 procurement process. This can serve to leave some offers excluded from any
6 consideration in the procurement process. The Report notes that “winnowing out
7 potentially valuable offers from consideration because of non-essential considerations
8 can undermine the goal of providing the ‘best’ resource options to consumers.”¹⁹
9 Therefore, the Analysis Group recommends that when non-price factors are used,
10 specifically as a threshold for eligibility, they should be explicitly stated in RFP
11 documents, and suppliers should have an opportunity to fulfill such criteria.

12 4. *Other considerations*

13 The Analysis Group Report discusses a number of other criteria to achieve a
14 robust procurement process, including: conducting the procurement in an efficient and
15 timely manner, and aligning procurements and actions of regulators to support a
16 competitive response from potential bidders.

17 **IV. PNM’S USE OF BEST PRACTICES IN ITS IRP**

18 **Q. DOES PNM’S IRP PROCESS REFLECT SOME OR ALL OF THESE BEST**
19 **PRACTICES?**

20 A. PNM’s IRP process reflects some, but not all, of these best practices. PNM’s IRP process
21 continues to improve and, therefore, PNM continues to advance its processes for ensuring
22 selection of the most cost-effective resources, consistent with the IRP Rule. PNM

¹⁹ The Analysis Group Report, page 45. Exhibit CCL-5.

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1 conducts many of the best practices for IRPs, which is part of why Interwest believes
2 PNM's IRP has resulted in appropriate MCEP and Four-Year Action Plan.

3 The best practices employed by PNM include, for instance, studying a range of
4 load forecasts and scenarios. In its 2017 IRP, PNM studied a low, mid, and high forecast
5 which considered weather, customer growth, economic activity and pace of efficiency
6 gains, and number of customers adopting distributed generation. These load forecasts
7 resulted in PNM evaluating a wide range of future resource needs. PNM also studied a
8 number of scenarios including scenarios with low, mid, and high gas prices, and various
9 assumptions for carbon pricing.

10 PNM employed best practices by evaluating a wide range of supply-side
11 alternatives including gas, nuclear, battery storage, solar photovoltaic, concentrating solar
12 power, wind, and geothermal. Additionally, PNM employed best practices in reviewing
13 existing resources and options for modifying or retiring existing resources. PNM spent
14 significant time and effort in the IRP considering potential retirement of SJGS and
15 whether retirement would help the utility achieve the MCEP. Ultimately, this evaluation
16 was integral to the IRP as PNM found that, under most combinations of load, natural gas
17 prices, and carbon costs, retirement of SJGS would result in a more cost-effective
18 portfolio for customers.

19 PNM also employs best practices in valuing and selecting plans. PNM considers
20 the net present value of the portfolios, but also considers the elements of the portfolios
21 which can help mitigate risks and the environmental impacts of the portfolios (especially
22 in terms of air quality and water use).

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1 Additionally, PNM’s Four-Year Action Plan demonstrates an IRP best practice in
2 that it includes an implementable, near-term plan that results from the IRP effort. In
3 particular, PNM discusses its near-term plans to evaluate the costs and benefits of PNM
4 joining the EIM. The study is intended to cover a set of scenarios and illustrates another
5 best practice which PNM is working to implement in its IRP process.

6 These are just a few of several ways in which PNM employs best practices. PNM
7 should be commended for the positive efforts it is making to implement emerging best
8 practices in IRP planning.

9 **V. PROPOSED IMPROVEMENT TO PNM’S IRP PROCESS**

10 **Q. COULD PNM’S IRP PROCESS BE IMPROVED BY EMPLOYING THE BEST**
11 **PRACTICES YOU DESCRIBE?**

12 A. Yes.

13 **Q. PLEASE EXPLAIN.**

14 A. Despite PNM’s implementation of many best practices, there remain areas for
15 improvement and modifications that PNM can make to better employ best practices in
16 future IRP and future procurement used to implement those IRPs and achieve the
17 objective of the IRP rule. Below, I explain a few areas where PNM’s resource evaluation
18 and implementation processes should be improved.

19 As I will explain, PNM can better structure its IRP not to limit the quantity of
20 particular types of resources selected by the model, to better account for investment
21 drivers (and particularly the timing of the federal tax credits), improve documentation
22 (especially surrounding its assumptions about supply-side costs, transmission, and
23 assumed capacity values), increase the transparency and fairness of its IRP

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1 implementation process by making changes to the procurement process that results from
2 implementation of the IRP’s Four-Year Action Plan, and improve coordination with
3 merchant transmission developers to better assess transmission which may enable
4 delivery of additional resources to PNM’s load.

5 **Q. HOW SHOULD PNM STRUCTURE ITS IRP NOT TO LIMIT RESOURCE**
6 **SELECTIONS?**

7 A. To align with best practices and better ensure the achievement of IRP Rule objectives,
8 PNM should not artificially limit the amount of particular types of generation resources
9 (such as renewable energy resources), that can be selected by the optimization models
10 (most notably Strategist). In conducting the “wind sensitivities,” PNM’s 2017 IRP limits
11 the amount of wind generation that can be selected in a portfolio to 400 MW. On page
12 118 of the IRP, PNM states “PNM also allowed *up to* 400 MW of wind facilities to be
13 selected...” (*emphasis added*). PNM’s use of the 400 MW wind resource limitation is
14 driven by transmission constraints on its system. Notably, PNM states “additional
15 transmission from eastern New Mexico is needed to support future wind energy supply to
16 PNM’s customers.”²⁰

17 Instead of restricting resource selections, PNM should allow for an optimized
18 selection of resources, even when those resources are transmission constrained. This
19 could be achieved by allowing the models to select additional wind resources, beyond the
20 400 MW limit. To account for the additional costs that may be associated with more wind
21 beyond 400 MW, the IRP could utilize a proxy for approximate incremental transmission
22 costs, which would be added to the supply-side costs for wind beyond the 400 MW limit.

²⁰ PNM IRP Report at 132.

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1 This best practice would allow for PNM to begin to evaluate whether additional wind
2 resources, even with new transmission, might be a cost-effective resource for its
3 customers.

4 This same recommendation applies to other resources, including solar. PNM
5 limited the amount of solar resource additions to 250 MW in the cases with SJGS retiring
6 and the PNM 2017 IRP cost curve for solar.²¹ This best practice is particularly important
7 for wind, because as one LBNL study found, utilities it studied procured three times more
8 wind than was initially planned in its IRP over approximately a 10-year period.²²
9 Artificially limiting the amount of resources that can be selected may hinder achievement
10 of the most cost-effective portfolio of resources in the IRP.

11 **Q. HOW SHOULD PNM BETTER ACCOUNT FOR INVESTMENT DRIVERS**
12 **SUCH AS TIME-SENSITIVE FEDERAL TAX CREDITS?**

13 A. As discussed previously, emerging IRP best practices include comprehensive
14 consideration of investment drivers. One of the key investment drivers for renewable
15 energy resources in the near-term is the availability of the PTC and ITC, and the timing
16 considerations that apply to securing the maximum amounts of these federal tax credits,
17 and their associated savings for ratepayers.

18 PNM's apparent approach to studying the ITC and PTC was to include
19 sensitivities on the price of wind and solar resources.²³ The sensitivities performed by
20 PNM are a good starting point for evaluation of the tax benefits that are available to these
21 resources; however, PNM's current process does not accurately capture the timing

²¹ PNM IRP Report at 115 (Table 31).

²² LBNL, Carvallo, et al. *Exploring the Relationship Between Planning and Procurement in Western U.S. Electric Utilities*. June 2017. DE-AC02-05CH11231, available at: http://eta-publications.lbl.gov/sites/default/files/irp_paper_2_-_planning_to_procurement_-_final_6june2017.pdf.

²³ PNM IRP Report at 117 (Table 33) and 114 (Table 30).

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1 component of the expiration and reduction in these tax credits. Therefore, it falls short of
2 comprehensively considering these investment drivers and the impacts they may have on
3 the timing for procuring the most cost-effective resources.

4 The Consolidated Appropriations Act of 2016 extended the PTC and ITC for a
5 defined period and set forward a gradual ramp-down of the federal tax credits. The
6 timelines for ramp-down which were part of the bill are based on the dates in which the
7 project “begins construction.” These ramp down timelines for the ITC and PTC are
8 known, and the likelihood for either the ITC or PTC to be further extended appears to be
9 slim. Therefore, there is more certainty related to the ramp down of these federal tax
10 credits than ever before, and the timing considerations should be appropriately considered
11 in the IRP and in the resulting procurement.

12 For the PTC, the 100% PTC value ended at the end of 2016. This means projects
13 must have “begun construction” by the end of 2016 in order to qualify for 100% of the
14 PTC value.²⁴ The Internal Revenue Service (“IRS”) has put forward guidelines for
15 determining when construction begins. One of the ways project developers can
16 demonstrate the beginning of construction is to utilize the 5% Safe Harbor provision,
17 which requires spending 5% or more of the total cost of the facility in the year in which
18 “construction begins.” The IRS’s Continuity Safe Harbor allows projects which are
19 placed in service within four years after the year in which construction began (which can
20 be achieved through the 5% Safe Harbor provision) to meet the IRS requirements for
21 advancing construction, allowing these projects to secure PTC benefits. Thus, there are
22 likely several projects under development throughout the southwest which may still be

²⁴ The PTC is about \$23/MWh for wind in 2018 and is adjusted for inflation each year.

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1 able to qualify for 100% of the PTC value, though most need to be in service by the end
2 of 2020.²⁵ Similar timelines extend to the 80% PTC, 60% PTC and 40% PTC, with most
3 projects requiring online dates no later than the end of 2021, 2022, and 2023, to secure
4 the respective level of PTC.

5 For the ITC, PNM discusses the timelines associated with the scale back of the
6 ITC from 30% to 10%. However, the IRP goes on to state that, for the PNM-17IRP price
7 curve, PNM assumes the 30% investment tax credit extends in perpetuity.²⁶ While this
8 assumption may be reasonable, since solar prices have fallen significantly over recent
9 years, it fails to account for the possibility that prices may not continue to decline at the
10 same rate and that, by considering the known timelines for ITC reduction, PNM may be
11 able to help secure very low solar costs by procuring resources which are eligible for the
12 30% ITC through the end of 2019.

13 These timing deadlines are important, as the PTC and ITC significantly reduce the
14 PPA costs of renewable resources and, ultimately, reduce costs for utility customers.
15 PNM's IRP can be improved to better consider the timing factors associated with these
16 investment drivers and to reflect different prices for different years for wind and solar
17 resources. For instance, wind coming online in 2021 should be credited with 80% PTC
18 and wind in 2022 should have the 60% PTC. Using these pricing assumptions may drive
19 the planning models to procure wind and solar earlier on in the planning horizon.
20 Ultimately, if the timing considerations are appropriately modeled, the pending expiration

²⁵ For example, Southwestern Public Service Company is taking advantage of PTCs in its acquisition of the Sagamore and Hale wind farms, approved by the Commission in Case No. 17-00044-UT (location approval for Sagamore was granted in Case No. 17-00275-UT). Other renewable energy projects have applied for, or received, Commission location approval (*see, e.g.*, Case Nos. 15-00373-UT (Grady Wind), 17-00221-UT (Mesa Canyons), and 18-00065-UT (Corona Wind projects).

²⁶ PNM IRP at 114.

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1 of the PTC (and reduction in the ITC) may suggest it is prudent for PNM to expedite
2 some elements of PNM’s Four-Year Action Plan, such as expanding and/or expediting
3 the Eastern Interconnection Project (“EIP”) transmission line to accommodate wind
4 energy in order to maximize the receipt of federal tax credits and secure the most cost-
5 effective resources.

6 Appropriate modeling of the PTC and ITC timing considerations is important in
7 PNM’s IRP planning process. Considering different structures for achieving the
8 maximum benefits of these tax credits in the procurement process is another key
9 component that should be considered for this investment driver. For instance, wind
10 developers may be willing to take on certain risks for projects that could secure the 100%
11 PTC but are not needed by PNM until after 2020. Developers may be willing to bring
12 projects online before the end of 2020 but arrange to deliver and sell power to another
13 entity in the interim time period. The projects could then provide the output of the facility
14 to PNM at a later date (*e.g.*, 2022) to more closely align with PNM’s future resource
15 needs. Projects may be able to offer these unique structures, which may help provide the
16 lowest-cost generation options to PNM’s customers. In order to ensure these projects
17 would be online however, they likely need to have executed PPAs before the end of this
18 year (providing the remaining two years to achieve regulatory approvals, complete
19 permitting and construct the project). PNM should fully consider these timing
20 considerations in the IRP, in the RFPs, and in any other resource procurement activities
21 that result from the IRP process.

22 **Q. HOW CAN PNM IMPROVE DOCUMENTATION IN THE IRP?**

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1 A. PNM’s IRP documents a plethora of assumptions and modeling techniques that go into
2 the lengthy and complex IRP process. However, there are areas where documentation and
3 assumption specification could be improved.

4 For instance, PNM’s IRP discusses the calculation of the capacity value of solar.
5 PNM discusses some of the assumptions and methodologies that went into creating the
6 Effective Load Carrying Capability (“ELCC”) figures for solar. PNM also has an ELCC
7 for wind resources, which is shown to be 5% in Table 30 of the IRP’s Appendix K.
8 However, PNM’s IRP, appendices and public presentation do not explain the inputs and
9 assumptions that went into that calculation.

10 Also, there appear to be some inconsistencies in the available documentation on
11 the ELCC of wind and the capacity value for wind assumed in the IRP. A presentation by
12 Astrape Consulting,²⁷ which was part of the IRP public advisory process, includes a
13 much higher ELCC for wind resources than what is listed in Appendix K and,
14 presumably, used in PNM’s IRP modeling. The Astrape presentation shows that a 2015
15 Renewable Integration Study found a 21.7% average ELCC for wind in 2023, with
16 incremental wind in 2023 having a 13.7% ELCC. PNM’s IRP does not explain the
17 discrepancy between these figures and the 5% used in PNM’s IRP, nor does it adequately
18 document how PNM calculated the approximate ELCC listed in Table 30 of Appendix K
19 and, presumably, used throughout the IRP modeling process.

20 ELCC is a complicated calculation and there are several methods that can be
21 employed to approximate ELCC. PNM should better document the assumptions and

²⁷ Astrape Consulting. Wintermantel, Nick. *SERVM: Strategic Energy Risk Valuation Model*, November 2016. Page 26, available at: https://www.pnm.com/documents/396023/3306887/Astrape+IRP+Presentation_v4_11_10_16_post.pdf/0f477641-9bf4-474d-baa5-a6ca857bf7d0.

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1 methodology it has used to determine the ELCC of wind. Interwest appreciates that PNM
2 will continue to work to improve the ELCC for solar once it has additional data.

3 Additionally, PNM should better document the new supply-side costs. While
4 these are discussed on pages 63-71 of the IRP and in Appendix K, those sections do not
5 provide sufficient detail on the methods PNM used to arrive at its assumptions.
6 Moreover, particularly for wind, it is unclear what level of PTC value PNM has assumed
7 in its supply-side costs.²⁸ Documentation of these inputs and assumptions could be
8 improved in order to foster a more transparent IRP process.

9 **Q. HOW CAN PNM INCREASE THE TRANSPARENCY AND FAIRNESS OF ITS**
10 **IRP IMPLEMENTATION PROCESS?**

11 A. Below I will discuss three suggestions to improve PNM’s IRP process, which is
12 implemented through the Four-Year Action Plan. In this case, the Four-Year Action Plan
13 includes an RFP for procuring some of the resources identified as part of the IRP’s
14 MCEP. The RFP is the vehicle for implementing much of the IRP’s MCEP and it is
15 critical to PNM’s future IRPs. As PNM stated in its response to Interwest’s First Set of
16 Interrogatories and Requests for Production: “The bid data collected in the current RFP
17 will be taken into account and may be used to develop resource cost assumptions in the
18 next IRP.”²⁹ This type of feedback is a good practice for better aligning IRP planning and
19 actual procurement. However, power prices may change dramatically over just several
20 years, so increasing the frequency of RFPs and considering known and likely changes in
21 resource costs when incorporating RFP pricing into future IRPs are important practices.

²⁸ 2017 IRP Appendices at 93 (Table 30). On the row for PTC, it simply states “yes” but does not specify the level of PTC assumed. This table appears to potentially include an error, in that some rows do not seem to match up with the heading.

²⁹ PNM response to IEA 1-2, attached in Exhibit CCL-2.

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1 Additionally, in order to ensure that future IRPs use reasonable assumptions,
2 which facilitate selection of the MCEP, the RFP needs to solicit a broad response and be
3 viewed as fair and transparent. The RFP must also provide sufficient time for bidders to
4 prepare and submit competitive responses in order to provide the best feedback into
5 future IRPs. To better achieve the IRP Rule objectives, PNM should make non-business
6 sensitive portions of the RFP publicly available, provide a draft RFP to stakeholders early
7 on, and employ the use of an IE.

8 **Q. PLEASE EXPLAIN HOW PNM COULD IMPROVE TRANSPARENCY BY**
9 **MAKING KEY RFP DOCUMENTS PUBLICLY AVAILABLE.**

10 A. PNM can and should improve the transparency of its procurement processes. PNM’s
11 2023 Generation RFP was held confidential and required signature of a Non-Disclosure
12 Agreement (“NDA”) to gain access to the RFP documentation on Power Advocate’s
13 website.³⁰ This lack of transparency prevents public access and review of the RFP
14 documents and process. Moreover, it may discourage some bidders from participating in
15 the RFP. Therefore, the lack of transparency could lead to the most cost-competitive
16 bidders electing not to participate in the RFP, which could result in the most cost-
17 effective bids not being submitted and, therefore, not being considered by PNM.

18 PNM indicated that its RFP documentation contains information regarding PNM
19 operations which is confidential, proprietary and competitively sensitive or trade-secret
20 information.³¹ PNM also indicated that bidders’ data and responses are confidential,
21 proprietary and competitively sensitive. Interwest fully agrees with, and best practices
22 support, not releasing sensitive bidder response data. However, all of the documentation

³⁰ PNM response to IEA 1-1, attached in Exhibit CCL-2.

³¹ *Id.*

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1 surrounding the RFP should not be restricted and, instead should be subject to public
2 review and easy access. At a minimum, portions of the RFP describing the bids being
3 sought and the methodology that will be used in considering the bids (*e.g.*, the RFP
4 instructions to bidders) should be available for review by all interested stakeholders and
5 Commission Staff. Additionally, public release of the standard contract(s) is(are) also
6 suggested. Forcing entities to sign NDAs to access these non-confidential documents
7 neither promotes transparency nor fosters a sense of fairness in the procurement process.

8 Interwest understands if portions of the RFP related to specific project sites on
9 which PNM is seeking development are under a NDA, but this same standard should not
10 apply to the entirety of the RFP documents. The perception of all RFP documents being
11 “hidden” or “secret” is problematic and not conducive to a transparent RFP process that
12 provides a sense of fairness to potential bidders.

13 Additionally, while it may be possible that an interested stakeholder could obtain
14 access to the documents by signing the NDA, there is no guarantee that their request
15 would not be rejected and they may be unable to engage in discussions with other
16 interested stakeholders about their concerns with the RFP due to the NDA. Moreover,
17 interested stakeholders may be restricted from accessing the RFP, as the NDA preamble
18 states “Whereas, Vendor wishes to have access to Company’s Confidential Information,
19 subject to the terms of this Agreement, in order to prepare a response to the RFP and
20 engage in discussions, site visits and other matters relating to the RFP.”³² Therefore, any
21 party which is not, itself, planning to submit a bid in the RFP may be restricted from
22 accessing the documentation associated with the RFP.

³² See Exhibit CCL-6.

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1 The NDA required to be signed for access to the RFP documentation is attached
2 as Exhibit CCL-6. The NDA includes strong restrictions on how signatories can utilize
3 the RFP documentation. For instance, the NDA says that “Vendor shall use the
4 Confidential Information *only* for the purposes of continuing discussions concerning the
5 RFP and preparing a response to the RFP” (*emphasis added*). The NDA also states that
6 “Vendor shall not disclose the Confidential Information to any other person or entity
7 (except to the employees or contractors of the Vendor or those affiliates, in accordance
8 with this Agreement), without Company’s prior written consent.” Because the entirety of
9 the RFP is restricted behind the NDA and, presumably, considered Confidential
10 Information, this restricts the ability of Vendors to discuss the RFP and any problematic
11 aspects of it with Commission Staff or others. Vendors are restricted to using the
12 Confidential Information only for responding to the RFP and cannot disclose any of it to
13 regulators or other interested stakeholders. Additional transparency of the RFP
14 documentation is recommended going forward.

15 **Q. PLEASE EXPLAIN THE IMPORTANCE OF GATHERING STAKEHOLDER**
16 **INPUT TO THE PROCUREMENT PROCESS AND HOW PNM SHOULD**
17 **IMPROVE THIS GOING FORWARD.**

18 A. As recommended by the Analysis Group, it is helpful for stakeholders to review the
19 procurement documents, and also for regulators to review them early on in the process.
20 The Analysis Group suggests that public participation through comments on the draft
21 RFP instrument can be productive. This type of public involvement and transparency of
22 the process is useful for several reasons. It is important for potential bidders to
23 understand, early on, the likely requirements of the RFP and the elements the utility is

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1 seeking through the RFP so they can best design their bids to meet those needs. The
2 Analysis Group also indicates that participation early on in the process can help mitigate
3 misunderstandings and address problems ahead of the competitive solicitation's issuance.
4 While PNM did host a pre-bid meeting to answer clarifying questions and provide
5 consistent instructions to bidders, it did not provide early access and comment/review of
6 the RFP to stakeholders.

7 Having an indication that an RFP will be coming, and what it will be seeking
8 helps to solicit the most cost-effective bids which best meet the utility's needs. Therefore,
9 to improve upon its IRP implementation process PNM should make the greatest amount
10 of non-confidential RFP documentation publicly available and should issue drafts of
11 these documents prior to the final RFP, providing time to address issues and concerns of
12 bidders and to provide a longer lead time for developers to prepare competitive bids.
13 PNM typically keeps its RFP timelines open for between 30-90 days.³³ While this is a
14 reasonable timeframe for the RFP to be open, bidders will be better prepared to provide
15 bids if they have notice that the RFP will be coming and an idea of the pre-conditions, bid
16 evaluation criteria, and PNM's specific needs. This can be achieved by issuing drafts of
17 the RFP documents ahead of opening the formal RFP response window.

18 **Q. PLEASE EXPLAIN PNM'S USE OF AN OWNER'S ENGINEER, THE ROLE OF**
19 **AN IE, AND THE IMPORTANCE OF INDEPENDENCE IN THE BID REVIEW**
20 **PROCESS.**

³³ Informal Summary of Public Service Company of New Mexico's Comments at the March 4, 2018 Workshop, (April 30, 2018), Case No, 18-00030-UT, page 2.

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1 A. PNM has indicated it uses an “Owner’s Engineer” for RFP bid evaluation.³⁴ While an
2 Owner’s Engineer can help provide some level of outside assistance and independence of
3 the evaluation process, it does not conform to the best practices of utilizing an IE or
4 Independent Monitor. The Owner’s Engineer “provides expertise and review of the bids
5 to ensure they are complete, accurate, credible, and capable of an ‘apples-to-apples’
6 evaluation” and ensures the robustness of various inputs.³⁵ In contrast, an IE, and the full
7 scope of an IE, provides far more assurance to regulators and potential bidders that bid
8 responses are being fairly reviewed and the results of the process will be fair.

9 Ideally, to ensure the IE is truly independent, it may be preferable for the IE to
10 report to a third party. For instance, the IE could report, and even be selected by,
11 Commission Staff. Additionally, the IE should review the utility’s bid evaluation
12 methodologies, monitor contract negotiations, and report to Commission Staff on the
13 process and its results. IE reports generally summarize whether the IE believes the
14 process was undertaken in a fair and unbiased manner, and report problems or issues with
15 the bidding process.

16 While IE’s can help to ensure consistent treatment, use of an IE does not preclude
17 flexibility in the RFP bid evaluation process nor dictate that all evaluation criteria must
18 be quantitative. An IE can provide additional assurances that qualitative evaluation
19 criteria are applied consistently by the utility, which may be even more important when
20 qualitative and non-price factors are an important part of the utility’s bid evaluation.

21 The IE also generally submits a report, which can include recommendations for
22 improving the competitive process in the future. An IE “can monitor and report on the

³⁴ PNM Response to IEA-1-4, attached in Exhibit CCL-2.

³⁵ Informal Summary of Public Service Company of New Mexico’s Comments at the March 4, 2018 Workshop, (April 30, 2018), Case No, 18-00030-UT, page 4.

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1 utility's conduct and the procurement's competitiveness as a way to help the commission
2 evaluate whether the results of the procurement should be approved as consistent with
3 just and reasonable rates."³⁶

4 It appears that PNM's Owner's Engineer does not partake in many of these
5 functions which are normally performed by an IE. The addition of an IE to PNM's
6 procurement process would increase the fairness and transparency of the procurement
7 process, which is likely to increase the quality of the bid submissions received by PNM.
8 Therefore, addition of an IE for future PNM RFPs is recommended. There are a number
9 of firms and individuals which provide IE services, some of which have been utilized by
10 other New Mexico and southwestern utilities and may, therefore, have reasonable
11 familiarity with PNM's system.

12 **Q. DO YOU HAVE ADDITIONAL SUGGESTIONS TO IMPROVE PNM'S IRP**
13 **PROCESS?**

14 A. Yes. There are additional ways PNM can improve its IRP process and implementation of
15 the IRP.

16 PNM is currently restricting the ability of the RIP models to select wind
17 resources, in particular, due to transmission constraints. As PNM acknowledges, there are
18 a number of merchant transmission development projects in the state of which the
19 Commission is already aware.³⁷ While Interwest commends PNM for reviewing wind
20 resources that can be accessed through the EIP transmission expansion project from
21 Clines Corners to BA, the IRP process could be improved if a more formal process for
22 working with merchant transmission developers was established. The process with

³⁶ The Analysis Group report, page 22. Exhibit CCL-5.

³⁷ For example, Southline (Case No. 17-00049-UT), Western Spirit (Case No. 17-00031-UT), and SunZia (Case No. 18-00049-UT).

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1 merchant transmission developers could be used to help PNM determine when those
2 projects might be able to come online, what additional capacity might be available for use
3 to deliver resources to PNM, and the timing of development milestones so that PNM
4 could better evaluate projects with a high likelihood of coming to fruition. PNM should
5 develop and document a process for obtaining information from third-party transmission
6 owners about potential future transmission projects in and around PNM's service territory
7 and explain how that information will be utilized and considered in future IRPs.

VI. CONCLUSION

8
9 **Q: PLEASE SUMMARIZE YOUR TESTIMONY.**

10 **A:** PNM's IRP process has generally complied with the IRP Rule. The objective of the IRP
11 Rule is for public utilities in New Mexico to identify the MCEP to supply the energy
12 needs of customers. There are best practices that should be employed to continue to
13 improve the IRP process and enhance achievement of that goal. Determining the MCEP
14 will always require continuous improvement and modification to the process as
15 investment drivers, uncertainty, regulations, and system conditions change. In order to
16 continue to improve on achieving the objective of the IRP Rule, I recommend that the
17 Commission order PNM to implement the following changes to its IRP process going
18 forward, including implementation practices for its competitive solicitations:

- 19 1. PNM should structure its IRP modeling such that it does not limit resource
20 selections (even when transmission constraints exist), but rather, the IRP should
21 factor in additional costs (including transmission costs) which may be necessary
22 for larger quantities of resources;

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- 1 2. PNM should improve its IRP modeling to better account for investment drivers
2 (in particular the timing elements associated with federal tax credits for renewable
3 energy);
- 4 3. PNM should improve documentation in the IRP, especially surrounding the
5 assumptions for supply-side resources (and any tax credits that are assumed) and
6 the development of capacity values for variable energy resources in particular,
7 which may lead PNM to expedite certain actions (such as the EIP transmission
8 project expansion);
- 9 4. PNM should improve the transparency and fairness of its competitive solicitation
10 process, which is a critical element of IRP implementation and provides data
11 points for use in future IRPs, by:
- 12 a. Making RFP components, such as bidder instructions and standard
13 contracts publicly available;
- 14 b. Publishing a draft RFP for stakeholder comment and question prior to
15 releasing the RFP;
- 16 c. Using an independent evaluator to provide more confidence in the
17 resource selection process and enhance bidder participation; and
- 18 5. PNM should develop a formal process for coordinating with merchant
19 transmission developers whose projects impact PNM's service territory in order to
20 better assess transmission which may enable delivery of more resources to PNM's
21 load and document how it will consider those projects, and the resources they
22 enable, in future IRPs.

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- 1 **Q: DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?**
- 2 **A: Yes, it does.**