BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF PUBLIC SERVICE)
COMPANY OF NEW MEXICO'S APPLICATION)
FOR APPROVAL OF PURCHASED POWER)
AGREEMENTS, ENERGY STORAGE)
AGREEMENTS, AND CERTIFICATES OF PUBLIC)
CONVENIENCE AND NECESSITY FOR SYSTEM) Case No. 23-00353-UT
RESOURCES IN 2026,)
)
PUBLIC SERVICE COMPANY OF NEW MEXICO,)
)
Applicant)
11	

SUPPLEMENTAL TESTIMONY

OF

JEREMY W. HESLOP

January 3, 2023

SUPPLEMENTAL TESTIMONY OF JEREMY W. HESLOP NMPRC CASE NO. 23-00353-UT

1	Q.	PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.
2	A.	My name is Jeremy W. Heslop. I am a Senior Contracts Manager within PNM's
3		Generation Engineering Group. My business address is Public Service Company
4		of New Mexico, 2401 Aztec Road NE, Albuquerque, New Mexico 87107.
5		
6	Q.	HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?
7	A.	Yes, I filed Direct Testimony in this proceeding on October 25, 2023.
8		
9	Q.	WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?
10	A.	Since PNM filed its initial application on October 25, 2023, the Independent
11		Evaluator has concluded final review of PNM's RFP process and the resource
12		selection in PNM's proposed portfolio for resources in 2026. The Independent
13		Evaluator's Final Report was made available to PNM on December 6, 2023. My
14		supplemental testimony serves to provide a copy of the Final Report, in redacted
15		format, for review by the parties in this case. This is attached to this supplemental
16		testimony as PNM Exhibit JWH-10, Redacted Bates White Final Report.
17		
18	Q.	DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?

19 A. Yes, I have nothing further at this time.

GCG#531936

PNM Exhibit JWH-10 Page 1 of 67



Public – Redacted Version

THE INDEPENDENT EVALUATOR'S REPORT REGARDING

PUBLIC SERVICE COMPANY OF NEW MEXICO'S

REQUEST FOR PROPOSALS FOR FIRM CAPACITY RESOURCES WITH GUARANTEED COMMERCIAL OPERATIONS DATES OF APRIL 1, 2026 OR EARLIER

Presented to: NEW MEXICO PUBLIC REGULATION COMMISSION

> Prepared by Vincent Musco Frank Mossburg Antara Khadria Maya Schroder

November 16, 2023

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I. Executive Summary

I.A. Background

Bates White, LLC ("Bates White")¹ was retained by Public Service Company of New Mexico ("PNM"), a wholly owned subsidiary of PNM Resources, Inc., to serve as an Independent Evaluator for its 2026-2028 Generation Resources RFP ("RFP"). The RFP was issued on November 3, 2022 and sought commitments to supply up to 500 MW in 2026, up to 400 MW in 2027, and up to 500 MW in 2028 of firm capacity resources to serve PNM's New Mexico system. Proposals were requested for capacity and energy resources that could guarantee the delivery of new, incremental, firm capacity by or before May 1, 2026, May 1, 2027, or May 1, 2028. Given the limited time available to PNM to complete the RFP and contracting process for May 1, 2026 resources, PNM bifurcated the RFP into two paths, focusing first on the evaluation of resources promising a Guaranteed Start Date of May 1, 2026 or earlier. This report addresses the evaluation of resources submitted for the May 1, 2026 Guaranteed Start Date.

We have been and are currently involved in each phase of the RFP process, including: (a) design and issuance of the RFP; (b) bid receipt and qualification; (c) evaluation and selection of the short list; (d) evaluation and selection of the final award group; and (e) contract negotiations.

The primary purpose of this report is to provide the New Mexico Public Regulation Commission ("PRC" or "Commission") with the Independent Evaluator's recommendation on the executed contracts filed by PNM. Our report addresses the RFP process and evaluation that resulted in the execution of those contracts and is intended to provide the Commission with a record of the RFP process and a discussion of key issues impacting the process.

¹ Bates White is an economic consulting firm established in 1998 with over 200 degreed professionals in engineering, economics, business, and finance. Bates White has been named to *Global Competition Review's* "Economics 20," a listing of the world's leading economics firms. Our energy experts bring to bear extensive energy industry experience, rigorous engineering and regulatory economics training, and state-of-the-art analytical methods. We have served or currently are serving as independent evaluators of electric utility procurements for state public utilities commissions in numerous states, including California, Hawaii, Oregon, Washington, Oklahoma, Mississippi, Illinois, Ohio, Maryland, New Jersey, Pennsylvania, Delaware, and the District of Columbia, among others.

I.B. Summary of Findings and Recommendations

PNM selected four bids for inclusion in the final award group with Guaranteed Start Dates by May 1, 2026 or earlier. They are as follows:

- Bid 16-1, NextEra Energy Resources Development's ("NextEra") 100 MW / 400 MWh Sky Ranch standalone Battery Energy Storage System ("BESS") project.
- Bid 16-2, NextEra's 49.5 MW / 198 MWh Route 66 standalone BESS project.
- Bid 25-1, Clenera LLC's ("Clenera") 100 MW solar photovoltaic ("PV") plus 100 MW / 400 MWh BESS Quail Ranch project.
- Bid 35-1, DEPCOM Power, Inc's ("DEPCOM") 60 MW / 240 MWh Sandia Substation standalone BESS project.

PNM executed contractual arrangements with all four bidders related to these selected projects. NextEra's projects each are subject to Energy Storage Agreements ("ESAs"); Clenera's project, as a hybrid project, executed both an ESA and Power Purchase Agreement ("PPA"); and DEPCOM's project was bid as an engineering, procurement, and construction ("EPC") project and thus is subject to an executed EPC agreement.

We recommend that the PRC approve the contracts as filed. We base our recommendation on our participation in every phase of the RFP process, including: (a) design and issuance of the RFP; (b) bid receipt and qualification; (c) evaluation and selection of the short list; (d) evaluation and selection of the final award group; and (d) contract negotiations. As we explain in the report, all four of the winning projects show significant value to PNM customers in meeting PNM's long-term capacity needs and portfolio modeling results demonstrated that these four projects were selected in almost every scenario. The selected bids also were the highest scoring bids in the Phase 2 evaluation in their respective categories.

One important note is that the inclusion of the DEPCOM contract in our recommendation is premised on PNM's use of a 0.1 loss of load expectation ("LOLE") planning standard. Using a 0.2 LOLE standard would not include this project in our recommendation. As we discuss later in this report we make no recommendation as to which standard is appropriate for PNM.

We also make the following recommendations for future PNM RFPs:

- We recommend PNM continue to monitor and, where appropriate, update its Effective Load Carrying Capability ("ELCC") studies and use its most updated ELCC values in future evaluations and planning exercises.
- We recommend that PNM work with stakeholders and the PRC to finalize a reliability planning standard. This will reduce uncertainty regarding PNM's planning process and enhance RFP evaluation results by having better-defined RFP targets.
- We recommend PNM solicit comments from interested parties on draft RFP documents. Often, outside stakeholders can provide useful advice and seek reasonable clarifications in the draft documents that can lead to a better final product that is ultimately issued to market.
- We recommend PNM solicit comments from interested parties on its *pro forma* agreements, including PPAs, ESAs, and EPC agreements (among others). Agreements of the length and complexity of the PPAs, ESAs, EPC, and other agreements can also benefit from the review of third-party developers and other interested stakeholders that have experience with such documents, including from other jurisdictions.
- We recommend PNM increase the visibility of the Independent Evaluator during the RFP process by, for example, listing direct contact information in the RFP documents. This can increase bidder confidence in the overall process.
- We recommend that PNM include the Independent Evaluator on all correspondences during the contract negotiation phase, including inviting the Independent Evaluator to all negotiation meetings.

II. RFP Design, Issuance, and Pre-Bid Meeting

II.A. RFP Design

Like many North American electric utilities, PNM is in the midst of a transition from a generation supply portfolio fueled by coal, natural gas, and fuel oil² to a portfolio with lower emissions and higher penetration of renewable energy resources. The 2019 *Energy Transition Act*³ established targets including (a) 80% of PNM's retail sales be provided by renewable energy by 2040 and (b) PNM supply 100% of its retail sales with carbon emissions-free generation by 2045, with PNM required to make "[r]easonable and consistent progress…over time to meet this requirement."⁴

PNM's 2020 Integrated Resource Plan ("IRP") provided a long-term view of PNM's forecasted needs over the ensuing 20-year period.⁵ PNM's 2020 IRP identified expected retirements of existing generation assets and expiration of existing PPAs, including complete retirement of coal generation and significant reductions in installed capacity fueled by natural gas and nuclear.⁶ In addition, PNM forecasted a peak load steadily increasing throughout the forecast time horizon.⁷ The 2020 IRP identified "significant investments in new resources" to "support [PNM's] transition to carbon free while maintaining resource adequacy."⁸

The RFP's purpose was to seek proposals from eligible suppliers to assist PNM in supporting this transition. PNM's RFP sought 200-1,000 MW of new, incremental, firm accredited capacity,⁹ with up to 500 MW targeted in 2026, up to 400 MW in 2027, and up to 500 MW in 2028.¹⁰ Importantly, PNM encouraged projects with May 1, 2026 Guaranteed Start Dates ("GSD") or earlier and noted that the earlier start dates would be factored into bid evaluation and that increased procurement in the earlier years may reduce needs in the later years.¹¹

² PNM's current portfolio of owned and leased generation, as well as generation under power purchase agreements as of December 31, 2022 is available at: <u>https://www.pnm.com/energy-sources</u>.

³ Senate Bill 489, 54th Legislature – State of New Mexico, First Session, 2019, available at: <u>https://www.nmlegis.gov/Sessions/19%20Regular/bills/senate/SB0489.pdf</u>.

⁴ Section 29, Section 62-16-4 NMSA 1978, (A)(6).

⁵ PNM 2020-2040 Integrated Resource Plan, January 29, 2021 ("2020 IRP").

⁶ See, for example, 2020 IRP, page J-3, table "Installed Capacity by Resource Type."

⁷ See, for example, 2020 IRP, page J-3, table "Key Annual Metrics."

⁸ 2020 IRP, Executive Summary, page 5.

⁹ Accredited capacity, or ELCC for resources was determined pursuant to Appendix J of the RFP.

¹⁰ RFP, section 1.3.

¹¹ RFP, section 1.3.

The RFP appropriately allowed bids from a wide range of potential resource options and offered bidders the flexibility to select from multiple contracting and ownership options. The RFP was an "all-source" RFP, meaning that it invited bids from all viable supply technologies (and demand-side resources). These included renewable resources (such as wind and solar), energy storage resources, natural gas-fired resources (that may be converted to a non-carbon emitting or renewable fuel), demand-side resources, and other resources, such as hydrogen-fueled resources, hybridization of existing resources, and solid fuel resources.¹² The RFP also invited bids under a variety of ownership structures and contractual vehicles, including PPAs, ESAs, asset purchase agreements ("APAs"), build-transfer ("BT") agreements, and EPC projects.¹³ PNM provided dedicated explanations to specific minimum requirements for each resource type and contracting/ownership construct.¹⁴

The RFP stated a preference for projects to be located on Navajo Nation lands.¹⁵ To implement this preference, PNM included a separate "best-in-class" bid evaluation and short list selection for projects on Navajo Nation lands.¹⁶ While not contained in the RFP as originally issued, PNM also included a preference for projects to be located in the Central Consolidated School District ("CCSD") through an RFP revision.¹⁷ As with the Navajo Nation preference, PNM developed separate best-in-class evaluation and shortlists for projects in the CCSD. As explained later in this document, no bids were received from projects on Navajo Nation land, and while some bids were received from projects in the CCSD with some reaching the shortlist, none were ultimately selected for the final award group.

The RFP document provided bidders with reasonably clear instructions and requirements. The RFP included a detailed RFP schedule,¹⁸ and though the timelines were aggressive in places – e.g., estimated contract execution date for 2026 resources was in the first quarter of 2023 – the schedule provided bidders with clear guidance on PNM's RFP process and plans. The RFP also explained the web-based bidding platform and provided relevant links and instructions to register.¹⁹ Use of a secure-file transfer bidding platform, such as the one used by PNM, is a best practice, in part because it allows all file transfers and communications to occur on a single platform that can be

¹² RFP, section 5.

¹³ RFP, section 4.1.

¹⁴ RFP, sections 4, 5, 6.4, 6.5, and 6.6.

¹⁵ RFP, section 1.3.

¹⁶ RFP, section 1.3.

¹⁷ RFP, section 1.3.

¹⁸ RFP, section 7.2.

¹⁹ RFP, section 1.5.1.

monitored by the Independent Evaluator. The RFP also included thorough explanations of the bid documents required for submission and minimum requirements.²⁰

The RFP included protections against collusive behavior or undue preference by the RFP administrators for any PNM self-build offer or affiliate offer. Bidders were required to represent and certify that they did not collude with any other bidders in developing their offers.²¹ PNM explained that the RFP was being held in compliance with its "Governance for Competitive Bid Processes" document, with all PNM employees and consultants as signatories.²² PNM functionally separated²³ its RFP Administration Team – those involved in the administration and evaluation of the RFP²⁴ – from the EPC Proposal Facilitator Team – the team supporting and evaluating any EPC bids.²⁵ PNM also explained the roles of others at PNM in the RFP process,²⁶ provided a diagram of each team and their roles,²⁷ and noted the use and role of the Independent Evaluator.²⁸ During the course of the RFP, Bates White observed no instances of collusive behavior or violations of PNM's RFP protocols.

The evaluation process associated with the RFP was explained in both the RFP document and a confidential Bid Evaluation Protocols document. The RFP document discussed in sufficient detail the three phases of the evaluation: Phase 1, which would serve as an initial screen of all bids received for compliance with the RFP minimum requirements and viability of the bid's Guaranteed Start Date; Phase 2, which would include a price and non-price evaluation, culminating in a short list of projects to be carried to the final phase of the evaluation; and Phase 3, which would subject the shortlisted bids to portfolio system modeling and which would end with a final award group.²⁹ The confidential Bid Evaluation Protocols elaborated on the RFP descriptions of the evaluation process.

PNM included in the RFP *pro forma* contracts associated with each type of contractual/ownership option available to bidders. These included a solar PPA,³⁰ a wind PPA,³¹ a

²¹ RFP, section 6.16.

- ²⁶ RFP, sections 1.5.7 through 1.5.9.
- ²⁷ RFP, sections 1.5.11.
- ²⁸ RFP, section 1.5.10.
- ²⁹ RFP, section 8.
- ³⁰ RFP, Appendix A-1.
- ³¹ RFP, Appendix A-2.

²⁰ RFP, section 6.

²² RFP, section 1.5.4.

²³ RFP, section 1.5.4.

²⁴ RFP, section 1.5.5.

²⁵ RFP, section 1.5.6.

natural gas facility PPA term sheet,³² a standalone ESA,³³ a hybrid ESA,³⁴ a build-transfer agreement term sheet,³⁵ an EPC agreement,³⁶ and an APA term sheet.³⁷ Providing these agreements to bidders in the RFP documents expedites the overall procurement process by allowing bidders to understand PNM's expectations, however, bidders were allowed to propose redlines to the respective *pro forma* agreement(s) in their bid packages.³⁸

Bates White was afforded the opportunity to review the draft RFP and confidential Bid Evaluation Protocols shortly before RFP issuance. The RFP itself was similar to prior PNM RFPs for which we had been Independent Evaluator but for which no winning projects had been identified.³⁹ Bates White provided substantial comments to PNM regarding the Bid Evaluation Protocols. Our comments suggested a number of clarifying and factual edits, added modeling process details, and sought substantive clarifications regarding PNM's intent in certain clauses in the document. PNM was responsive to our comments, requests, and questions.

In our view, PNM's RFP and related documents were reasonable and designed to produce optimal outcomes for customers. Given that PNM is likely to pursue additional competitive procurements in the future, we offer some suggested improvements for consideration in future procurements. First, PNM's RFPs can benefit by soliciting comments from interested parties on the draft RFP documents. Often, outside stakeholders can provide useful advice and seek reasonable clarifications in the draft documents that can lead to a better final product that is ultimately issued to market. Second, PNM can also post its *pro forma* agreements for comments. Agreements of the length and complexity of the PPAs, ESAs, EPC, and other agreements can also benefit from the review of third-party developers and other interested stakeholders that have experience with such documents, including from other jurisdictions. Third, PNM can increase the visibility of the Independent Evaluator by, for example, listing direct contact information in the RFP documents. This can increase bidder confidence in the overall process.

³² RFP, Appendix A-3.

³³ RFP, Appendix B-1.

³⁴ RFP, Appendix B-2.

³⁵ RFP, Appendix C.

³⁶ RFP, Appendix D.

³⁷ RFP, Appendix E.

³⁸ RFP, section 6.3.

³⁹ Bates White has been engaged by PNM as an Independent Evaluator for, among other procurements, its 2021 Replacement Generation RFP.

II.B. RFP Issuance

PNM issued the RFP on November 3, 2022. As originally issued, bids for projects with Guaranteed Start Dates in 2026 were due January 5, 2023, with bids for projects with Guaranteed Start Dates in 2027 or 2028 due February 1, 2023.⁴⁰ On December 15, 2022, PNM informed bidders through the online bidding platform that the RFP evaluation would include a preference for projects to be located in the CCSD, with the preference being implemented through a separate best-in-class bid evaluation and short list selection. On December 19, 2022, in response to bidder feedback, PNM granted a one-week extension to the due date for bids for projects with Guaranteed Start Dates in 2026, from January 5, 2023 to January 12, 2023. There was no change to the due date for 2027-2028 bids.

Both before and shortly after RFP issuance, potential bidders submitted written questions to PNM through the online bidding platform. PNM responded to those bidder questions. PNM also compiled such questions – anonymizing them by removing any identifying information about the party submitting the question – and maintained a Q&A log that was accessible to all registered parties on the online bidding platform. This is a good practice that allows all potential bidders to benefit from access to additional information about the RFP disseminated through the Q&A process.

II.C. Pre-Bid Meeting and Bidder Conference

On November 17, 2022, shortly after RFP issuance, PNM held a Pre-Bid Meeting using an online web platform with stakeholders and members of the PRC Staff. PNM's presentation included an overview of the RFP objectives, RFP process and timeline, and RFP documents. PNM also introduced key members of its RFP team and Bates White as Independent Evaluator. Bates White made a separate presentation, which included an introduction to Bates White and key team personnel, summary of main objectives of the Independent Evaluator's role, and the major tasks involved in our work. PNM concluded the Pre-Bid Meeting with a questions-and-answers session. PNM also held a bidder conference with interested EPC potential bidders to overview the sites available for EPC bids on November 21, 2022.

⁴⁰ RFP, section 7.2.

III. Bid Receipt

Bids specifying a May 1, 2026 Guaranteed Start Date (or earlier) were due on January 12, 2023. Bids were received through PNM's secure file transfer bidding platform. Bates White had access to the bidding platform, which allowed bidders to submit their proposals as well as to engage in questions and answers with PNM. Both PNM and Bates White ensured that all bids received were received before the deadline. Two bids (explained below) were late and did not pass Phase 1 of the evaluation.

Twenty-one (21) bidders submitted bids, representing thirty-one (31) projects and a total of fifty-eight (58) bid variants for consideration. The bids represented a variety of technologies, including:

- 25 bids for solar PV + energy storage systems ("ESS")
- 15 bids for standalone ESS
- 10 bids for standalone solar PV
- 3 bids for demand-side resources ("DSR")
- 2 bids for standalone wind
- 2 bids for natural gas-fired aeroderivative turbines ("Aero")
- 1 bid for natural gas-fired reciprocating internal combustion engine ("RICE")

The bids also included a variety of contractual vehicles, including:

- 35 power purchase agreements
- 10 energy storage agreements
- 8 engineering, procurement, and construction agreements
- 3 DSR agreements
- 2 build-transfer agreements

The RFP specified two locational preferences. Projects that were sited either (a) on Navajo Nation lands or (b) in the Central Consolidated School District ("CCSD") would be preferred in the evaluation.⁴¹ Thirteen (13) bids were received from the CCSD, representing five bidders and five projects. No bids were received on Navajo Nation land.

Overall, the RFP saw robust participation, particularly given the requirement to meet a guaranteed commercial operation date of May 1, 2026. Collectively, the RFP received 4,913 MW of generation capacity and 7,578 MWh of energy storage capability, accounting for mutual exclusivity of bid variants. Participation was strongest in solar PV (2,090 MW of nameplate capacity) and energy storage (1,895 MW of nameplate capacity).

Upon receipt of bids, PNM confirmed offer details with bidders. PNM sent questions to bidders and bidders confirmed project information and provided updated information where their original response was lacking. All such communications were contemplated in the RFP rules.⁴² Bates White had access to all written questions and responses, which were communicated through the online bidding platform.

Table 1 provides a high-level summary of the bids received.

⁴¹ Bid Evaluation Document, section 1.

⁴² RFP, section 8.1.

Table 1: Bids Received

Bid # Bidder Name Project Name Bid Technology Bid Type (MW) (M) 53-2 -	
Bid # Bid der Name Project Name Bid Technology Bid Type Capacity (MW) Capacity (0) 53-1	apacity (MW) - - - - - - - - - - - - - - - - - - -
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53-1 Aero EPC 39 53-2 Aero EPC 235 7-1.1 Solar PPA 400 7-1.2 Solar PPA 400 7-2 Solar PPA 400 11-1 Solar PPA 100 18-1 Solar PPA 100 23-1.1 Solar PPA 50 23-1.1 Solar PPA 200 23-1.2 Solar PPA 100 23-1.1 Solar PPA 100 23-1.2 Solar PPA 200 23-1.3 Solar PPA 100 23-1.4 Solar PPA 100 46-1 Wind PPA 200 47-1 I BESS ESA - 16-2 BESS ESA - 1 16-2 BESS EPC - 3 35-1 BESS EPC - 3 35-2.1 BESS EPC - 3	- - - - - - - - - - - - - - - - - - -
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11-1 Solar PPA 190 18-1 Solar PPA 50 23-1.1 Solar PPA 50 23-1.2 Solar PPA 200 23-1.3 Solar PPA 175 23-1.4 Solar PPA 175 23-1.3 Solar PPA 100 23-1.4 Solar PPA 100 23-1.4 Solar PPA 100 23-1.4 Wind PPA 200 46-1 Wind PPA 200 47-1 Wind PPA 100 46-1 BESS ESA - 1 16-2 Wind PPA 100 1 35-1 BESS ESA - 1 35-2.1 BESS EPC - 1 35-2.3 BESS EPC - 1 35-2.4 BESS EPC - 1 BESS EPC - 1 1	- - - - - - - - - - - - - - - - - - -
18-1 Solar PPA 50 23-1.1 Solar PPA 200 23-1.2 Solar PPA 175 23-1.3 Solar PPA 175 23-1.4 Solar PPA 100 46-1 Wind PPA 200 47-1 Wind PPA 200 16-2 Wind PPA 180 16-2 BESS ESA - 1 35-1 BESS ESA - 1 35-2.1 BESS EPC - 3 35-2.3 BESS EPC - 3 35-2.4 BESS EPC - 3 BESS EPC - 3 3 BESS EPC - 3 3 3 3 3 BESS	- - - - - - 100 50 -
23-1.1 Solar PPA 200 23-1.2 Solar PPA 175 23-1.3 Solar PPA 150 23-1.4 Solar PPA 150 23-1.4 Solar PPA 100 46-1 Wind PPA 200 47-1 Wind PPA 100 16-1 BESS ESA - 16-2 BESS ESA - 27-1 Solar PPA 100 35-1 BESS EPC - 35-2.1 BESS EPC - 35-2.2 BESS EPC - 35-2.3 BESS EPC - 35-2.4 BESS EPC - BESS EPC - - 35-2.4 BESS EPC - BESS EPC - - BESS EPC - - BESS EPC - - BESS EPC - -	- - - - 100 50
23-1.2 Solar PPA 17.5 23-1.3 Solar PPA 150 23-1.4 Solar PPA 150 23-1.4 Solar PPA 100 46-1 Wind PPA 200 47.1 Wind PPA 100 16-1 BESS ESA - 16-2 BESS ESA - 27.1 Solar PPA 100 35-1 BESS ESA - 35-2.1 BESS EPC - 35-2.3 BESS EPC - 35-2.4 BESS EPC - 41.11 BESS EPC -	- - - 100 50
23-1.3 Solar PPA 150 23-1.4 Solar PPA 100 46-1 Wind PPA 200 47-1 Wind PPA 180 16-1 BESS ESA - 16-2 BESS ESA - 27-1 Solar PPA 100 35-1 BESS ESA - 35-2.1 BESS EPC - 35-2.2 BESS EPC - 35-2.3 BESS EPC - 35-2.4 BESS EPC - 41.11 BESS EPC -	- - 100 50 -
25-1.4 Solar PPA 100 46-1 Wind PPA 200 47-1 Wind PPA 180 16-1 BESS ESA - 16-2 BESS ESA - 16-2 BESS ESA - 16-2 BESS ESA - 16-2 BESS ESA - 16-3 BESS ESA - 16-4 BESS ESA - 16-5 BESS EPC - 35-1 BESS EPC - 35-2.1 BESS EPC - 35-2.2 BESS EPC - 35-2.3 BESS EPC - 35-2.4 BESS EPC - 41-11 BESS EPC -	- 100 50 -
46-1 Wind PPA 200 47-1 Wind PPA 180 16-1 BESS ESA - 16-2 BESS ESA - 27-1 BESS ESA - 35-1 BESS EPC - 35-2.1 BESS EPC - 35-2.3 BESS EPC - 35-2.4 BESS EPC - 41-11 BESS EPC -	- 100 50 -
47-1 Wind PPA 180 16-1 BESS ESA - 1 16-2 BESS ESA - 1 35-1 Solar PPA 100 35-1 BESS EPC - 1 35-2.1 BESS EPC - 1 35-2.3 BESS EPC - 1 35-2.4 BESS EPC - 1 BESS EPC - 1 1	- 100 50 -
16-1 16-2 16-2 1 16-2 1 16-2 1 10 10 10 27-1 1 100 10 35-1 1 10 10 35-1 1 10 10 35-1 1 10 10 35-1 1 10 10 35-2.1 1 10 10 35-2.1 1 10 10 35-2.1 1 10 10 35-2.1 1 10 10 35-2.1 1 10 10 35-2.1 1 10 10 35-2.1 1 10 10 35-2.2 1 10 10 35-2.4 1 10 10 35-2.4 1 10 10	50
16-2 1 BESS ESA - 27-1 1 Solar PPA 100 35-1 1 BESS EPC - 35-2.1 1 BESS EPC - 35-2.2 1 BESS EPC - 35-2.3 1 BESS EPC - 35-2.4 1 BESS EPC - 35-2.4 1 BESS EPC - 35-2.4 1 BESS EPC -	-
35-1 35-1 BESS EPC - 35-2.1 BESS EPC - 35-2.2 BESS EPC - 35-2.3 BESS EPC - 35-2.4 BESS EPC - 35-2.4 BESS EPC - 35-2.4 BESS EPC -	
35-2.1 I BESS EPC - 35-2.2 I BESS EPC - 35-2.3 I BESS EPC - 35-2.4 I BESS EPC - 35-2.4 I BESS EPC - 35-2.4 I BESS EPC -	60
35-22 BESS EPC - 35-23 BESS EPC - 35-24 BESS EPC - 35-24 BESS EPC -	10
35-2.3 I BESS EPC - 35-2.4 I BESS EPC - 41.11 BESS EPC - -	10
35-24 I BESS EPC	30
	70
DLOO EGA -	150
41-1.2 BESS ESA - 1	150
43-1.1 BESS ESA -	50
43-1.2 BESS ESA -	50
43-2.1 BESS ESA - 22	200
43-2.2 BESS ESA - 22	200
45-1.1 BESS ESA - 11	100
45-1.2 BESS ESA - 11	100
29-1 DSR DSR 85	-
33-1.1 DSR DSR 5	-
33-1.2 DSR DSR 5	-
7-3.1 Solar & BESS PPA 400	100
7-32 Solar & BESS PPA 400	100
74 Solar& BESS B1 400	100
9-1 I Solar& BESS EPC 100	30
11-2 Solar&BESS PPA 199	190
12-1 I Solar& BESS PPA 73	38
10-3 Solar & ESS PPA 30	50
17-11 301dr 0 ESS PPA 30 301dr 0 ESS PA 30	50
17-21 Solar & ECSS PPA 90	50
17-22 Solar & BESS PPA 90	50
18-2.1 Solar & BESS PPA 50	25
18-22 Solar & BESS PPA 50	50
18-3.1 Solar & BESS PPA 165	50
18-3.2 Solar & BESS PPA 165 1	100
22-1 Solar & BESS PPA 50	24
22-2 Solar & BESS PPA 50	24
22-3 Solar & BESS PPA 150	71
22.4 Solar & BESS PPA 190	90
23-2.1 Solar & BESS PPA 200 1	100
23-22 Solar & BESS PPA 175	88
23-23 Solar & BESS PPA 150	/5
23-24 Solar & BESS PPA 100	50
27-1 Solar & BESS PPA 100	400
LI-Z I Solar & BESS PPA 100	100
511 DIOC 000 100	100 30

IV. Phase 1 Evaluation

In this section, we review and assess PNM's Phase 1 evaluation for the RFP. The primary document that presents the results of PNM's evaluation was its "2026-2028 Generation Resources RFP Phase 1 Bid Evaluation Summary For May 1, 2026 Resources" ("Phase 1 Report") received on February 22, 2023. The Phase 1 Report describes the process and results of Phase 1 of the bid evaluation. We also were provided and reviewed PNM's "Confidential PNM 2026 RFP Bid Summary Document.xls" ("Phase 1 Bid Summary Document") which contained detailed information about each bid. PNM and Bates White held both written and oral discussions regarding the Phase 1 evaluation.

In this section, we provide our analysis of PNM's Phase 1 evaluation results. Overall, we found PNM's results reasonable.

The description of the Phase 1 evaluation is provided in Section 8.2.1 of the RFP, which states:

The evaluation will be conducted in three phases with "Phase One" being an initial screening of the Proposals for compliance with the RFP minimum requirements (See, e.g., Part 5 and Part 6), for compliance with the Proposal Prerequisites (See Section 1.4), for compliance with the Supplier Risk Security Screening Questions (See Section 3.6), and for proof of an executable plan supporting the proposed Guaranteed Start Date. The Phase One screening process will be performed for each Proposal to determine if all required information has been provided and minimum requirements satisfied. Material deficiencies may disqualify a Proposal from further consideration, and the Respondent will be notified in such event. PNM may reject incomplete or unclear Proposals from further consideration or contact Respondents for clarification, pursuant to Section 8.1 of this RFP.

The Bid Evaluation Protocols, which are non-public, elaborated on the Phase 1 evaluation process, stating:

Proposals will initially be reviewed for completeness. Any missing information identified by the RFP Administration Team or EPC Support Team, as applicable, will be requested from Bidders.

Proposal attributes will be summarized in the Bid comparison tool (Attachment B). Initial observations will be summarized and presented based on the Bid comparison template. Considering the initial review of Proposals, information provided in response to Bidder

questions and clarifications, and the trends observed in the Bid comparison, Bidders and/or Proposals may be eliminated from consideration based on the evaluation by the RFP Administration Team (with input from the EPC Support Team regarding EPC Proposals) and with the Project Manager's approval. Elimination during Phase 1 would be limited to Proposals that do not comply with (i) the Proposal Prerequisites in Section 1.4 of the RFP Instructions to Bidders, (ii) the Supplier Risk Security Screening Questions issued with the RFP, (iii) law regarding the possession of a required contractor's license associated with EPC and BT Proposals (iv) other minimum resource requirements as identified in Sections 4, 5 and 6 of the RFP Instructions to Bidders, or (v) are otherwise incomplete after requesting additional information based on the RFP requirements or (vi) possess significant feasibility or viability concerns as compared to similar Proposals, including consideration of (a) the Bidder's prior history of project performance, (b) the Bidder's prior history of project defaults, or (c) Bidder's lack of experience with the technology at the size and scale proposed. Reasons for elimination will be documented, a Phase 1 Bid evaluation report will be prepared and issued for review by the Independent Evaluator, and Bidders will be notified accordingly at the end of Phase 1.43

In our view, PNM conducted the Phase 1 evaluation in a manner that was consistent with the RFP documents, including the non-public evaluation protocols. PNM evaluated each bid for completeness and compliance with the RFP requirements. This included a review of each bid's compliance with the RFP's stated "Proposal Prerequisites."⁴⁴ Bids removed from further consideration during the Phase 1 evaluation process were removed for reasons that were consistent with the RFP, as we explain below. PNM documented its Phase 1 evaluation in the Phase 1 Report, which was shared with Bates White, consistent with the RFP.

Of the 58 bid variants received, 18 failed to meet the minimum requirements of the RFP and were eliminated by PNM from further evaluation. Details on those eliminations (and our assessment of each) is as follows.

• **Bids 7-2, 7-4, 9-1:** Each of these bids failed to demonstrate that the bidder possessed the necessary New Mexico Contractor's License. The RFP required all EPC and BT bidders to "submit proof of having a valid contractor's license in accordance with the New Mexico Construction Industries Division."⁴⁵ PNM offered both bidders the chance to cure this deficiency in their respective bids. Neither bidder adequately addressed this deficiency. We

⁴³ Bid Evaluation Protocols, section 6.1.

⁴⁴ RFP, Section 1.4.

⁴⁵ RFP, section 1.4.

agreed with PNM's exclusion of these bids from further evaluation. Bids 7-2 and 7-4 were the only two BT bids received in the RFP (the BT bid involves a complete turnkey asset build, whereas an EPC covers just the unit construction and not the full asset wrap), while bid 9-1 was from

 Bids 22-3, 22-4: These bids were submitted after the RFP's stated deadline for bids and thus were excluded by PNM from further evaluation. Notably, these bids were from

. Bates White agreed with the exclusion of these

bids from further evaluation.

• Bids 18-1, 18-2.1, 18-2.2, 22-2, 27-1, 27-2, 41-1.1, 41-1.2, 43-2.1, 43-2.2, 46-1: Each of these bids could not demonstrate that they would likely reach commercial operations by May 1, 2026. These bids were accepted into PNM's Generator Interconnection Queue in Cluster 14 or 15. For such bids, the RFP called for "an assessment of the viability of the quoted Guaranteed Start Date by PNM's transmission team."⁴⁶ In each case, PNM concluded that the bids did not include sufficient justification or documentation that the quoted capacity can be delivered to PNM's load by the proposed Guaranteed Start Date. Bates White discussed this issue with PNM, seeking to understand why projects in Cluster 14 and 15 would likely fail to reach commercial operations by May 1, 2026. PNM Transmission provided their interconnection study timeline and we agreed that the referenced bids all contained substantial risk in meeting a Guaranteed Start Date of May 1, 2026. As such, we found the exclusion of these bids reasonable. Worth noting is that bids 22-2 and 22-3 were bid by

Given that each of these bids was eliminated due to the viability of their interconnection schedules relative to the May 1, 2026 date, all such bids were allowed to be resubmitted with a later Guaranteed Start Date for the evaluation of the 2027/2028 bids.

• **Bids 43-1.1, 51-1:** Both projects were eliminated by PNM due to a lack of sufficient justification or documentation that the quoted capacity could be delivered to PNM's load by the proposed Guaranteed Start Date in each offer. We inquired with PNM Transmission regarding these exclusions. For Bid 43-1.1, PNM Transmission provided a detailed explanation of how the bid could not reach commercial operations until at least the fourth quarter of 2025, which was several months later than the bid's Guaranteed Start Date of May 1, 2025. (The bidder also submitted the same project as a separate bid variant with a Guaranteed Start Date of May 1, 2026—this bid was passed through the Phase 1 evaluation

⁴⁶ RFP, section 1.3.

process.) For Bid 51-1, PNM also provided a detailed explanation of the risks associated with this bid's proposed schedule and why it was unlikely to meet its Guaranteed Start Date of May 1, 2026. Given these explanations, we found that the exclusion of these bids was reasonable.

All other bid variants were passed through the Phase 1 evaluation process to be evaluated in Phase 2. In total, forty (40) bid variants from sixteen (16) bidders representing twenty-one (21) projects passed Phase 1. These included:

- 17 bids for solar PV + ESS
- 10 bids for standalone ESS
- 7 bids for standalone solar PV
- 3 bids for DSR
- 1 bid for standalone wind
- 2 bids for natural gas-fired aeroderivative turbines ("Aero")
- 0 bids for natural gas-fired RICE

The transaction type for these bid variants breaks down as follows:

- 25 PPAs
- 5 ESAs
- 7 EPCs
- 3 DSR agreements
- 0 BTs

Collectively, the bids that passed Phase 1 included a total of 4,783 MW of generation capacity and 7,467 MWh of energy storage capacity, not accounting for mutual exclusivity. The projects that passed Phase 1 are shown in Table 2 below.

Table 2: Phase 1 Passing Bids

						Energy
					Generation	Storage
					Capacity	Capacity
Bid #	Bidder Name	Project Name	Bid Technology	Bid type	(MW)	(MW)
53-1	-		Aero	EPC	39	-
53-2	_		Aero	EPC	235	-
7-1.1	_		Solar	PPA	400	-
7-1.2	_		Solar	PPA	400	-
11-1	_		Solar	PPA	190	-
23-1.1			Solar	PPA	200	-
23-1.2			Solar	PPA	175	-
23-1.3	_		Solar	PPA	150	-
23-1.4	_		Solar	PPA	100	-
47-1	_		Wind	PPA	180	-
16-1	_		BESS	ESA	-	100
16-2	_		BESS	ESA	-	50
35-1	_		BESS	EPC	-	60
35-2.1	_		BESS	EPC	-	10
35-2.2	_		BESS	EPC	-	10
35-2.3			BESS	EPC	-	30
35-2.4			BESS	EPC	-	70
43-1.2			BESS	ESA	-	50
45-1.1	-		BESS	ESA	-	100
45-1.2	m		BESS	ESA	-	100
29-1			DSR	DSR	85	-
33-1.1			DSR	DSR	5	-
33-1.2			DSR	DSR	5	-
7-3.1			Solar & BESS	PPA	400	100
7-3.2			Solar & BESS	PPA	400	100
11-2	-		Solar & BESS	PPA	190	190
12-1	-		Solar & BESS	PPA	75	38
16-3	-		Solar & BESS	PPA	90	68
17-1.1			Solar & BESS	PPA	90	50
17-1.2			Solar & BESS	PPA	90	50
17-2.1			Solar & BESS	PPA	90	50
17-2.2			Solar & BESS	PPA	90	50
18-3.1			Solar & BESS	PPA	165	50
18-3.2			Solar & BESS	PPA	165	100
22-1			Solar & BESS	PPA	50	24
23-2.1			Solar & BESS	PPA	200	100
23-2.2			Solar & BESS	PPA	175	88
23-2.3			Solar & BESS	PPA	150	75
23-2.4			Solar & BESS	PPA	100	50
25-1			Solar & BESS	PPA	100	100

V. Phase 2 Evaluation

V.A. Evaluation Methodology

Bids that met all Proposal and schedule Requirements were then evaluated according to the RFP's Phase 2 methodology.⁴⁷ Section 8.2.2 of the RFP explains the Phase 2 evaluation process. The purpose of Phase 2 is to select a short list of bids from those that passed the Phase 1 evaluation. PNM's approach was to establish a short list consisting of "best-in-class" bids of each technology offered in response to the RFP. The Phase 2 evaluation ranked bids based on both price and non-price evaluation factors. Accordingly, Phase 2 included both a Price Evaluation and Non-Price Evaluation.

The Price Evaluation required PNM to rank all Proposals from a cost standpoint. The price screening consists of measuring each Proposal's total delivered cost of energy, including: (a) capital costs and/or capacity costs; (b) fixed operation and maintenance costs; (c) variable production costs; (d) fuel and water costs; (e) transmission costs, including third party wheeling; (f) operational costs, including system regulation requirements as a result of the project; (g) other system benefits (including accounting for availability of renewable energy credits, or "RECs") or costs (including impact to system losses); (h) opportunities for marketing of excess energy; (i) any additional costs that are required, but not provided for in the Proposal; and (j) financial implications of accounting and tax treatment.⁴⁸

The Non-Price Evaluation, which aimed to measure "the viability of the project and the Respondent's ability to deliver the project as proposed,"⁴⁹ included the following factors. First was the project viability, which included (a) project development and permitting status, including any potential for delay as the result of a Respondent's need for regulatory actions or approvals or for permitting, land acquisition, licensing, transmission interconnection, or transmission service; (b) commercial viability, maintainability, and maturity of technology proposed at the scale quoted; (c) detailed project critical path schedule identifying all important development elements, environmental permit milestones and their timing; (d) respondent's experience with technology and contract structure proposed; and (e) viability of performance and capacity quoted. Next was the project's contribution to PNM's overall system reliability, i.e., the project's operational control (or lack thereof) and its effect on PNM's reliability metrics. PNM also considered the project's employment plan, which sought to measure the bidder's intention for employment of local, New Mexico work

⁴⁷ RFP, section 8.2.2.

⁴⁸ RFP, section 8.2.2.1.

⁴⁹ RFP, section 8.2.2.2.

force, minority and woman-owned businesses, and apprentices for the construction of the facilities. The Non-Price Evaluation also considered the bidder's environmental and siting plan, which assessed the project's emissions profile, environmental footprint and overall environmental feasibility for each project, site, access, permits, and all necessary right of ways. Finally, PNM also assessed the bidder's Occupational Safety and Health Administration ("OSHA") safety records.⁵⁰

The non-public Bid Evaluation Protocols elaborated on the Phase 2 evaluation process. They stated that, if necessary, "additional Bidder questions and clarifications will be issued by the RFP Administration Team considering input and feedback from the EPC Support Team."⁵¹ PNM's subject matter experts would continue to be involved in the evaluation, as required.⁵² The short list "will be established based on total evaluated delivered cost of energy and total evaluated delivered cost of capacity as well as the overall viability of the Proposal with respect to its ability to achieve commercial operation by the proposed [Guaranteed Start Date]" and compliance with New Mexico laws and regulations.⁵³

The Evaluation Protocols also explained that "the short list should generally maintain offerings in each technology category with sufficient capacity to deliver the full requested capacity, if available," and named several of those technologies (e.g., "solar generation," "energy storage," etc.).⁵⁴ The Evaluation Protocols stated that the short list will retain separate best-in-class generation projects on Navajo Nation lands and CCSD lands.⁵⁵

In our view, PNM conducted the Phase 2 evaluation in a manner that was consistent with the RFP documents, including the non-public Evaluation Protocols. PNM evaluated all bids that passed the Phase 1 evaluation. This included both a Price Evaluation and Non-Price Evaluation of all remaining bids. PNM separated the bids into technology categories that were consistent with the RFP and Evaluation Protocols, including (a) solar photovoltaics, (b) solar PV plus energy storage systems, (c) standalone ESS, (d) demand-side resources, (e) wind, and (f) natural gas-fired aeroderivative turbines. PNM also established a separate category for the short list containing bids from the CCSD; no projects were bid into the RFP on Navajo Nation lands, so no separate category was developed for such projects. PNM calculated for all bids, as applicable, the levelized cost of energy ("LCOE") and levelized cost of capacity ("LCOC"), as well as "risk-adjusted" LCOEs and LCOCs, as applicable, which was intended to "monetize" each Proposal's inability to achieve a perfect non-price evaluation

⁵⁰ RFP, section 8.2.2.2.

⁵¹ Bid Evaluation Protocols, section 6.2.

⁵² Bid Evaluation Protocols, section 6.2.

⁵³ Bid Evaluation Protocols, section 6.2.

⁵⁴ Bid Evaluation Protocols, section 6.2.

⁵⁵ Bid Evaluation Protocols, section 6.2.

score for evaluation factors associated with deliverability of the project.⁵⁶ Ultimately, while PNM calculated risk-adjusted LCOEs and LCOCs (as applicable) for the bids, PNM relied on the non-risk adjusted LCOE and LCOCs in its Phase 2 evaluation.



PNM documented its Phase 2 evaluation in the Phase 2 Report, which was shared with Bates White, consistent with the RFP. Bates White independently verified all LCOE and LCOC calculations, as well as the determination and calculation of the Price, Non-Price, and Total scores in



the Bid Evaluation Matrix.⁶³ We provided PNM with direct written feedback including numerous questions and comments on PNM's Phase 2 evaluation. PNM provided Bates White with written responses to our questions and comments. We noted that the short list originally proposed by PNM contained only 310 MW of ESS capacity. Subsequent to the issue of the draft Phase 2 report, PNM expanded the short list to include the two next highest scoring ESS bids (35-2.3 and 35-2.4) on the shortlist, following the establishment of clearly defined sites applicable to these two projects. This increased the total ESS capacity to 380 MW, bringing it closer to the 500 MW maximum capacity target stated in the RFP. (No other bids that passed Phase 1 and were not otherwise reasonably eliminated from short list consideration were available to expand the short list any further.) Bids removed from further consideration during the Phase 2 Evaluation process were done for reasons that were consistent with the RFP, as we explain below.

V.B. Results

PNM assessed all bids that passed the Phase 1 evaluation and assessed each via PNM subject matter expert feedback, lifecycle financial analysis, an assessment of total delivered cost, and viability of delivering the project within the proposed timeline. Resources were evaluated in Phase 2 using the weighted scoring matrix identified in the RFP documents.

While the RFP sought to fill quantity targets in each shortlist category this was not possible in some cases due to a lack of viable bids. The short list does not include any projects with known fatal flaws and maintained viable bids that offered the most attractive delivered cost of energy and capacity. PNM's short list represents the "best-in-class" proposals of each technology offered in response to the RFP. PNM's short list includes several bids in CCSD. (No bids were received from projects to be located on Navajo Nation land.)

Bids were eliminated for two primary reasons. First, many were eliminated due to uncompetitive pricing, consistent with the RFP and bid evaluation protocols. Second, several bids made it through the initial Phase 1 screen only for a closer examination by PNM's Transmission group to determine that their estimated interconnection in-service dates were materially beyond the RFP stated COD deadline of May 1, 2026. As we explain below, we found PNM's decisions reasonable and found they followed the evaluation documents. Consistent with the RFP design and PNM's Phase 2 evaluation, we address the bids selected (and unselected) by technology category below.

⁶³ We note that PNM developed two matrices, one for EPC bids and one for all other bids (i.e., "market" bids). For simplicity, we refer to just one single Bid Evaluation Matrix.

V.B.1. Solar PV Bids

Seven bid variants from three bidders representing three projects were evaluated in Phase 2. Table 3 below shows the solar PV bids, Short List selections (in white), and unselected bids (in gray).

- Bids 7-1.1 and 7-1.2 were not selected due to feedback from PNM Transmission that the network upgrades necessary to reliably interconnect this project would not be completed before May 1, 2026. Specifically, PNM Transmission estimated that the project would not meet its interconnection in-service date until three years after the "notice to proceed" ("NTP") date, which is the date on which PNM expects to receive a final, non-appealable approval of projects from the New Mexico PRC.⁶⁴ Given that PNM expects the NTP and PRC approval date to be June 30, 2024, the project would not be able to meet a May 1, 2026 Guaranteed Start Date.
- Bid 11-1 was also eliminated, for two reasons. First, PNM had concerns with the bid's schedule. The bidder requested an NTP date (including PRC approval) of September 30, 2023 in order to meet the bid-in Guaranteed Start Date, citing "long-lead times for some major equipment" associated with the project.⁶⁵ Second, the project's bid price was considerably higher than all other solar PV bids. At an LCOE of MWh, the bid was 61% more expensive than the marginal (i.e., most expensive selected) solar PV bid and 62% higher than the simple average bid price of all other solar PV bids received.

PNM selected four solar bids from a single bidder and a single project,

project (bid 23, including four total variants). Bates White agreed with the solar PV short list selections and bids eliminations.

⁶⁴ RFP, section 1.4.

⁵ January 20, 2023 response to question 3 from PNM.

Table 3: Solar PV Bids Evaluated in Phase 2 (with Short List selections in white)

Bid #	Bidder Name	Project Name	Bid Technology	Bid type	Generation Capacity (MW)	Energy Storage Capacity (MW)	Accredited capacity (MW)	LCOE (\$/MWh)	LCOC (\$ /kW- yr)	Risk-Adjusted LCOE (\$/MWh)	Risk-Adjusted LCOC (\$/kW-yr)	Price Score (LCOE)	Non-Price Score	Total Score - LCOE			
23-1.1			Solar	PPA	200	-	3.28										
23-1.2			Solar	PPA	175	-	2.87										
23-1.3			Solar	PPA	150	-	2.46										
23-1.4			Solar	PPA	100		1.64										
7-1.1			Solar	PPA	400	-	6.56			Notviskle	ky May 2026 due to i	storoonnoction ochodul	ofentunek unerad	la maada			
7-1.2			Solar	PPA	400	-	6.56			Not viable by may 2020 due to interconnection scheduleinetwork upgrade needs							
11-1			Solar	PPA	190	-	3.12			Not viable by May 2026, unreasonably high cost							

V.B.2. Solar PV + ESS Bids

Seventeen bid variants from nine bidders representing eleven projects were evaluated in Phase 2. Table 4 below shows the solar PV + ESS bids, Short List selections (in white), and unselected bids (in gray).⁶⁶ Several bids went unselected:

- Bids 7-3.1 and 7-3.2 were not selected due to feedback from PNM Transmission that the
 network upgrades necessary to reliably interconnect this project would not be completed
 before May 1, 2026. Specifically, PNM Transmission estimated that the project would not
 meet its interconnection in-service date until three years after the NTP date, which is the date
 on which PNM expects to receive a final, non-appealable approval of projects from the New
 Mexico PRC.⁶⁷ Given that PNM expects the NTP and PRC approval date to be June 30, 2024,
 the project would not be able to meet a May 1, 2026 Guaranteed Start Date.
- Bid 11-2 was also eliminated, for two reasons. First, PNM had concerns with the bid's schedule. The bidder requested an NTP date (including PRC approval) of September 30, 2023 in order to meet the bid-in Guaranteed Start Date, citing "long-lead times for some major equipment" associated with the project.⁶⁸ Second, the project's bid price was considerably higher than all other solar PV bids. At an LCOE of MWM, the bid was 265% more expensive than the marginal solar PV + ESS bid. Its LCOC (\$MMW) was 112% more expensive than the marginal solar PV + ESS bid.
- Bids 17-1.1 and 17-1.2 were not selected due to feedback from PNM Transmission that the
 network upgrades necessary to reliably interconnect this project would not be completed
 before May 1, 2026. Specifically, PNM Transmission estimated that the project would not
 meet its interconnection in-service date until five years after the NTP date. Given that PNM
 expects the NTP and PRC approval date to be June 30, 2024, the project would not be able to
 meet a May 1, 2026 Guaranteed Start Date.
- Bid 12-1 was not selected for three stated reasons by PNM: (1) unfavorable commercial terms, (2) limited team experience, and (3) a challenged schedule in which the estimated commercial operations date is the same as the Guaranteed Start Date, suggesting no contingency or margin of error in the bidder's schedule. Bates White noted to PNM the

⁶⁶ The table shows most bids as broken down by their solar PV (generation) component and ESS (storage) component.

⁶⁷ RFP, section 1.4.

⁶⁸ January 20, 2023 response to question 3 from PNM.

attractiveness of this bid's pricing and questioned why this bid was not included on the shortlist. PNM explained that it considered these three issues as contributing to the questionability of the "overall viability of the Proposal with respect to its ability to achieve commercial operation by the required Guaranteed Start Date," which is a primary objective of the Phase 2 evaluation as identified in the RFP. PNM explained that the Bidder's proposed commercial terms were far from those requested in the Form Agreement as well as any others recently contracted by PNM suggesting the potential for an extended contract negotiation. PNM noted that the key team member's largest solar project was 10 MW with no experience in New Mexico or with Investor-Owned Utilities and the request for a release in 2023 and an estimated commercial operations date on the same date as the Guaranteed Start Date represented a questionable project schedule with little to no margin for an RFP that is focused on the most viable projects to support the requested Guaranteed Start Date. It should also be noted that Bid 12-1 also scored lower than all other shortlisted solar PV + ESS bids due to these non-price factors.

- Bid 16-3 went unselected as well. PNM noted that this bid was not cost competitive and also
 was subject to an increased risk of curtailment given that it would be co-located with another
 resource. Bid 16-3 was among the most expensive solar PV + ESS bids evaluated on both an
 LCOC and LCOE basis. Bid 16-3 would also be placed behind the interconnection of existing
 wind projects that currently fills the interconnection capacity. Bid 16-3 would be secondary
 to the export of wind generation from the site. As such, PNM claimed it would be difficult to
 forecast the ability to fully utilize the wind, solar, and storage projects to the extent that PNM
 would desire to dispatch these resources.
- Bids 17-2.1 and 17-2.2 were two bid variants involving the same project, with 17-2.1 having a first-year bid price that would be escalated at %/year during the contract term and 17-2.2 being a non-escalated price option. The non-escalated bid was ranked than other unselected bids (12-1 and 16-3). PNM also had concerns associated with project viability related to this bidder's experience in delivering similar projects. Specifically, the bidder had limited experience, particularly in the U.S., in delivering similarly-sized solar PV + BESS projects as the 90 MW solar PV + 200 MWh ESS project proposed here. The bidder acknowledged through Q&A with PNM that the "two most similar projects developed and sold and that are currently operational are

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January 20, 2023 response to question 29 from PNM.

• Bid 22-1, an bid sponsored by the project's schedule. Bid 22-1 was the **scoring** solar PV + ESS bid on an LCOE basis and was outperformed by all shortlisted offers on an LCOC basis except bid 18-3. Moreover, the bidder specified an expected commercial operations date one month prior to its Guaranteed Start Date; when asked if the bidder would be willing to specify an earlier expected commercial operations date to increase the duration between these milestones in a manner more consistent with the RFP Form Agreements (Appendix A-1 and Appendix B-2), the bidder stated that due to "equipment lead times," they "would not be comfortable making this date early unless NTP and NMPRC approval came earlier than June 30, 2024."⁷⁰

PNM thus selected seven solar PV + ESS bids from three bidders representing three projects: (1) project, with 165 MW of solar PV plus 50 MW ESS (18-3.1) or 100 MW ESS (18-3.2), (2) project, with between 100 MW and 200 MW of solar PV plus 50 MW to 100 MW of ESS across four bid variants (23-2.1 through 23-2.4), and (3) 100 MW solar PV plus 100 MW ESS project (25-1). Each of the selected bids outscored the unselected bids.

Collectively, these projects offer a maximum total of 465 MW of solar PV, 300 MW of ESS capacity, and 258.3 MW of accredited capacity. During our review of PNM's proposed Phase 2 results, Bates White noted to PNM that these capacity totals do not meet the maximum total capacity being sought in the RFP. We suggested reconsideration of bids 16-3 and 12-1. PNM responded with reasonable concerns about these two bids, which are explained above. Ultimately, Bates White agreed with the solar PV + ESS short list selections and unselected bids.

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January 20, 2023 response to question 1 from PNM.

Table 4: Solar PV + ESS Bids Evaluated in Phase 2 (with Short List selections in white)

					Generation	Energy Storage				Risk- Adiusted	Risk- Adiusted	Price	Price		Total	Total
					Capacity	Capacity	Accredited	LCOE	LCOC	LCOE	LCOC	Score	Score	Non-Price	Score -	Score -
Bid #	Bidder Name	Project Name	Bid Technology	Bid type	(MW)	(MW)	capacity (MW)	(\$/MWh)	(\$/kW-yr)	(\$/MWh)	(\$/kW-yr)	(LCOE)	(LCOC)	Score	LCOE	LCOC
18-3.1			Solar & BESS	PPA	165	50	44.89									
18-3.1S			Solar & BESS	PPA	165	-	2.71									
18-3.1B	-		Solar & BESS	PPA	-	50	42.18									
18-3.2	_		Solar & BESS	PPA	165	100	86.27									
18-3.2S			Solar & BESS	PPA	165	-	2.71									
18-3.2B			Solar & BESS	PPA	-	100	83.56									
23-2.1	-		Solar & BESS	PPA	200	100	86.85									
23-2.1S			Solar & BESS	PPA	200	-	3.28									
23-2.1B	_		Solar & BESS	PPA	-	100	83.56									
23-2.2			Solar & BESS	PPA	175	88	76.39									
23-2.2S	_		Solar & BESS	PPA	175	-	2.87									
23-2.2B	-		Solar & BESS	PPA	-	88	73.52									
23-2.3			Solar & BESS	PPA	150	/5	65./3									
23-2.3S			Solar & BESS	PPA	150	-	2.46									
23-2.3B			Solar & BESS	PPA	-	75	63.27									
23-2.4			Solar & BESS	PPA	100	50	43.82									
23-2.4S			Solar & BESS	PPA	100	-	1.64									
23-2.4B			Solar & BESS	PPA	-	50	42.18									
25-1			Solar & BESS	PPA	100	100	85.21									
25-1S			Solar & BESS	PPA	100	-	1.64									
25-1B			Solar & BESS	PPA	-	100	83.56									
12-1			Solar & BESS	PPA	75	38	32.87									
12-1S			Solar & BESS	PPA	75	-	1.23									
12-1B			Solar & BESS	PPA	-	38	31.64									
16-3			Solar & BESS	PPA	90	68	58.84									
16-3S			Solar & BESS	PPA	90	-	1.48									
16-3B	-		Solar & BESS	PPA	-	68	57.36									
17-2.2			Solar & BESS	PPA	90	50	43.66									
17-2.2S	_		Solar & BESS	PPA	90	-	1.48									
17-2.2B	-		Solar & BESS	PPA	-	50	42.18									
22-1	-		Solar & BESS	PPA	50	24	20.90									
22-1S			Solar & BESS	PPA	50	-	0.82									
22-1B			Solar & BESS	PPA	-	24	20.08									
7-3.1			Solar & BESS	PPA	400	100	110.48			Not viable	by May 202	6 due to inte	rconnection	schedule/ne	twork upgra	ade needs
7-3.2			Solar & BESS	PPA	400	100	110.48				2, 110, 202	o bao to inte			and any application	
11-2	-		Solar & BESS	PPA	190	190	168.69					C	ost, schedu	le		
17-1.1			Solar & BESS	PPA	90	50	48.23			Not viable	by May 202	6 due to inte	rconnection	n schedule/ne	twork upgra	ade needs
17-1.2			Solar & BESS	PPA	90	50	48.23				2) may 202	o duo to inte		- conomic/110	and approximation of the second se	all noord
17-2.1			Solar & BESS	PPA	90	50	48.23				More	expensive	than fixed p	rice option ab	ove	

V.B.3. Standalone ESS Bids

Ten standalone BESS bid variants from four bidders representing six projects were evaluated in Phase 2. Five bids representing two projects were EPC bids, with the remainder of the bids offered under an ESA contract structure. Table 5 below shows the standalone ESS bids, Short List selections (in white), and unselected bids (in gray). Four bid variants went unselected:

- 43-1.2, the 50 MW/200 MWh ESS project bid in by was unselected • due to a prior default history associated with the project. Specifically, a version of the project had previously been selected by PNM in a solicitation process, but failed to deliver the project at the contracted price, instead asking for significant price increases. PNM ultimately terminated the agreement with PNM considered this prior lack of performance to be a fatal flaw that led to a low confidence in the bidder's ability to deliver the project on time. We note that the RFP did not specifically identify a prior default or lack of performance as a threshold or eligibility requirement, and indeed this bid passed Phase 1 of the evaluation when such screens were applied. PNM relied instead upon a general lack of confidence in the bidder's ability to deliver on its project as bid given that the bidder defaulted on a contract for an ESS project at this very site less than a year ago. We cannot say this is an unreasonable decision, though it may be preferable for PNM to better specify the impact of prior underperformance or defaults in the evaluation process in future RFPs. One option is for PNM to specify formulaic deductions to a bidder's non-price score for any prior defaults. We also note that the bid had a LCOC and had a lower total score than the short-listed ESS bids.
- 35-2.1 and 35-2.2 were two 10 MW variants of EPC bids at the site. (Two other bid variants of this project 30 MW and 70 MW, (35-2.3 and 35-2.4) respectively, which would add ESS to existing PNM sites, including potentially Santolina were selected.) PNM explained that it was choosing to add the larger two bid variants to the short list since they offered lower prices. Bid variant 35-2.2, in particular, was more expensive (\$ ______/MW LCOC) than the other two bid variants (\$ ______/MW-\$ _____/MW LCOC). PNM originally planned to not select any of these four variants for the shortlist; Bates White noted that PNM's preliminary short list for this technology category fell well short of the maximum target capacity. However, following the establishment of clear definitions for the applicable sites, PNM indicated that it would pass these two variants to the shortlist, adding up to 70 MW of additional potential ESS capacity to the shortlist.

• 45-1.2 is one of two bid variants offered by for its for its storage project. This variant is identical with bid 45-1.1, which was selected for the shortlist, but for its use of price escalation. PNM opted to go forward with the non-escalated price offer variant for this bid.

PNM thus selected six bids from three bidders representing five projects: (1) NextEra's 100 MW/400MWh project (16-1), (2) 50 MW/200 MWh project (16-2), (3) 60 MW/240 MWh project (EPC, 35-1), (4) multi-site Santolina Storage project (30 MW/120 MWh (35-2.3) and 70 MW/280 MWh (35-2.4) (EPC)), and (5) 100 MW/400 MWh project (45-1.1).

Collectively, these projects offer a maximum total of 380 MW/1,520 MWh of ESS capacity and 319.0 MW of accredited capacity. As noted above, during our review of PNM's proposed Phase 2 results, Bates White noted to PNM that these capacity totals do not meet the maximum total capacity being sought in the RFP. PNM added bids 35-2.3 and 35-2.4 in response to our review. Ultimately, Bates White agreed with the standalone ESS short list selections and unselected bids.

Table 5: Standalone ESS Bids Evaluated in Phase 2 (with Short List selections in white)

Bid #	Bidder Name	Project Name	Bid Technology	Bid type	Generation Capacity (MW)	Energy Storage Capacity (MW)	Accredited capacity (MW)	LCOE (\$/MWh)	LCOC (\$/kW-yr)	Risk- Adjusted LCOC (\$/kW-yr)	Price Score (LCOC)	Non-Price Score	Total Score - LCOC
16-1			BESS	ESA	-	100	83.56						
16-2			BESS	ESA	-	50	42.18						
35-1			BESS	EPC	-	60	50.62						
45-1.1			BESS	ESA	-	100	83.56						
35-2.3			BESS	EPC	-	30	25.31						
35-2.4			BESS	EPC	-	70	59.05						
43-1.2			BESS	ESA	-	50	42.18						
35-2.1			BESS	EPC	-	10	8.44						
35-2.2			BESS	EPC	-	10	8.62						
45-1.2			BESS	ESA	-	100	83.56			Not select	ed due to th	e superiority	of 45-1.1

V.B.4. DSR Bids

Three bid variants from two bidders representing two projects were evaluated in Phase 2. Table 6 below shows the standalone DSR bids, Short List selections (in white), and unselected bids (in gray). No bids were selected for the shortlist.

- Bid 29-1 was not selected for two primary reasons. First, the bidder did not provide an offer • of firm capacity, as solicited by the RFP.⁷¹ The bidder acknowledged that it "cannot provide a guaranteed firm capacity on an annual timescale, as there are many interdependencies in program design for which we would require PNM input and real world customer feedback, as well as weather/climate dependencies."⁷² instead proposed a "pay-for-performance" model in which PNM only pays for the actual capacity that is delivered."73 While such an approach may have value, the RFP was clear in soliciting firm capacity where bidders did not do that here. provide availability guarantees over the life of the contract. Second, PNM noted that it had concerns with the viability of the quantity of DSR resources forecast of its customer assets was based on historical proposed in the bid. observations, similar-sized utilities, and information from its vendor partners. In all, was assuming 176,000 residential participants and 150 commercial and industrial participants. In our view, the lack of an offer of firm capacity – the product being procured in this RFP ⁷⁴ – represents sufficient grounds for not selecting this bid for the shortlist.
- Bids 33-1.1 and 33-1.2, which were bid variants of a MW DSR resource that differed only in contract term length (12 years vs. 20 years), also went unselected. PNM's primary reason for this was its high offer price, which translated to LCOCs of \$ kW-yr (33-1.1) and \$ kW-yr (33-1.2). These high prices made it highly unlikely that the bids could be cost effective, as required by the RFP.⁷⁵ PNM also noted that the availability of the resource as bid would be limited. The resource would require a 10-minute notice period to be called upon,

⁷¹ RFP, sections 1.3, 5.5.

⁷² January 20, 2023 response to question 14 from PNM.

⁷³ January 20, 2023 response to question 14 from PNM.

⁷⁴ We note that the RFP is not always 100% clear on this issue. See, for example, Part 4 ("Types of Eligible Proposals"), which states in relevant part when describing the "types of Proposals [that] are eligible for consideration under this RFP": "Proposals to sell energy, capacity, and/or ancillary services..." Future PNM RFPs should remove any ambiguity about the product being procured. Here, we see the clear language of sections 1.2, 1.3, and 5.5 as clearly identifying the product as firm capacity.

⁷⁵ RFP, section 1.2, Part 3.

would not provide any ancillary services, and may be limited when customer assets are providing backup power to customers in the event of a grid outage.⁷⁶

As such, PNM advanced no DSR bids to the shortlist. We found this result reasonable, given the discussion above.

January 20, 2023 response to question 7 from PNM.

Table 6: DSR Bids Evaluated in Phase 2 (none selected for Short List)

Bid #	Bidder Name	Project Name	Bid Technology	Bid type	Generation Capacity (MW)	Energy Storage Capacity (MW)	Accredited capacity (MW)	LCOE (\$/MWh)	LCOC (\$/kW-yr)	Risk-Adjusted LCOE (\$/MWh)	Risk-Adjusted LCOC (\$/kW- yr)	Price Score (LCOC)	Non-Price Score	Total Score - LCOC
33-1.2			DSR	DSR	5	-	1.16							
29-1			DSR	DSR	85	-	TBD							
33-1.1			DSR	DSR	5	-	1.16			Not further ev	aluated due to hi	gh cost and lim	ited capacity	/ availability

V.B.5. Wind Bids

One wind bid was evaluated in Phase 2, the 180 MW project from (47-1). Table 7 below shows the lone wind bid evaluated, with Short List selections (in white—none selected), and unselected bids (in gray).

Bid 47-1 went unselected due to feedback from PNM Transmission, which could not conclude that the bid could meet its Guaranteed Start Date. The project would be located in and would interconnect to a 48-mile, 345 kV line that will interconnect to a 345 Substation, located adjacent to and interconnecting with kV/115kV , which is owned and operated by From there, the interconnection extends an additional 66 miles on another segment of the (115 kV) where it will ultimately connect at the substation near PNM could not determine a credible estimate for the estimated interconnection in-service date or a date by which PNM would need to provide a notice to proceed to . PNM Transmission explained that it would need to know the timing of the non-PNM interconnection facilities to develop its estimate of the PNM interconnection facilities needed to facilitate the project. PNM did note that the project will need significant transmission upgrades, including a 345 kV/115 kV transformer, which will take three years. PNM Transmission also noted that the project's interconnection study is over five years old and so any cost and construction estimates therein would have to be revisited based on current market prices and procurement times. We agreed that the project contained above normal risk that harmed its viability by its Guaranteed Start Date of May 1, 2026 and that its exclusion was reasonable, given the importance of PNM securing firm capacity by that date.

Table 7: Wind Bids Evaluated in Phase 2 (none selected for Short List)

Bid #	Bidder Name	Project Name	Bid Technology	Bid type	Generation Capacity (MW)	Energy Storage Capacity (MW)	Accredited capacity (MW)	LCOE (\$/MWh)	LCOC (\$/kW-yr)	Risk-Adjusted LCOE (\$/MWh)	Risk- Adjusted LCOC (\$/kW- yt)	Price Score (LCOE)	Non-Price Score	Total Score - LCOE	
47-1			Wind	PPA	180	-	20.01			Not viable by May 2026 due to interconnection schedule/network upgrade					

Two bid variants (both EPC) from one bidder representing two projects were evaluated in Phase 2. Table 8 below shows the gas-fired aeroderivative turbine bids, Short List selections (in white), and unselected bids (in gray). One bid was selected for the shortlist, a 39 MW project that featured an LM6000 unit at **EVALUATE:**

Table 8: Gas Aero Bids Evaluated in Phase 2

					Generation Capacity	Energy Storage Capacity	Accredited	LCOE	LCOC	Risk- Adjusted LCOE	Risk- Adjusted LCOC	Price Score	Non-Price	Total Score -
Bid #	Bidder Name	Project Name	Bid Technology	Bid type	(MW)	(MW)	capacity (MW)	(\$/MWh)	(\$/kW-yr)	(\$/MWh)	(\$/kW-yr)	(LCOC)	Score	LCOC
53-1			Gas - Aero	EPC	39	-	38 22							
53-2			Gas - Aero	EPC	235	-	229.85							

V.C. Short List

PNM's short list includes eighteen (18) total bids from seven (7) bidders across nine (9) projects. The short list includes (a) solar, (b) solar plus storage, (c) standalone storage, and (d) an aeroderivative gas project. The bids' ownership structures included PPAs, ESAs, and EPC contracts. When not accounting for site and bid variant mutual exclusivity, the bids' collective generation capacity totaled 1,719 MW, the collective storage capacity of the storage bids was 973 MW/3,890 MWh, and the total accredited capacity of the projects was 881.91 MW. When accounting for site and bid variant mutual exclusivity, the bids' collective maximum generation capacity totaled 504 MW, the collective maximum generation capacity totaled 504 MW, the collective of the storage bids was 680 MW/2,720 MWh, and the total maximum accredited capacity of the projects was over 600 MW. The full short list is shown in Table 9 on the following page.

In our view, PNM's short list is reasonable and reflects the challenges faced by utilities across the country seeking to decarbonize their portfolios in a reliable manner. While there are robust amounts of interest from developers in the marketplace willing to offer a variety of projects, interconnection times remain a significant hurdle to viability for many projects. (Recall that there were a large number of projects eliminated in Phase 1 due to unviable project timelines caused by interconnection in-service dates projected to be later than project Guaranteed Start Dates.) PNM's RFP, particularly for resources to be in place by May 1, 2026, should not subject customers to undue risk that the projects selected in this RFP are delayed and fail to meet their Guaranteed Start Dates due to interconnection timing issues.

Table 9: Short List

Bid #	Ridder Name	Project Name	Bid Technology	Bid type	Generation Capacity (MW)	Generation Output (Annual MWh)	Energy Storage Capacity (MW)	Energy Storage (MWh)	Accredited	Location	Guaranteed COD	Contract term (Years)
53-1		i rojov nano	Gas - Aero	EPC.	30	58 508	()		38.22	Loodion	5/1/2026	(00000)
23-11			Solar	PPA	200	643 087		_	3.28	-	5/1/2026	20
23-1.2			Solar	PPA	175	562 698		-	2.87	—	5/1/2026	20
23-1.3			Solar	PPA	150	482,306	-	-	2.46	-	5/1/2026	20
23-1.4			Solar	PPA	100	321.525		-	1.64	-	5/1/2026	20
16-1			BESS	ESA	-	-	100	400	83.56	-	5/1/2026	20
16-2			BESS	ESA	-	-	50	200	42.18	_	5/1/2026	20
35-1			BESS	EPC	-	-	60	240	50.62		5/1/2026	-
45-1.1			BESS	ESA	-	-	100	400	83.56		5/1/2026	20
35-2.3			BESS	EPC	-	-	30	120	25.31		5/1/2026	-
35-2.4			BESS	EPC	-	-	70	280	59.05		5/1/2026	-
18-3.1			Solar & BESS	PPA	165	464,597	50	200	44.89		5/1/2026	20
18-3.2			Solar & BESS	PPA	165	464,597	100	400	86.27		5/1/2026	20
23-2.1			Solar & BESS	PPA	200	643,087	100	400	86.85		5/1/2026	20
23-2.2			Solar & BESS	PPA	175	562,698	88	350	76.39		5/1/2026	20
23-2.3			Solar & BESS	PPA	150	482,306	75	300	65.73		5/1/2026	20
23-2.4			Solar & BESS	PPA	100	321,525	50	200	43.82		5/1/2026	20
25-1			Solar & BESS	PPA	100	276,482	100	400	85.21		5/1/2026	20

VI. Phase 3 Evaluation

VI.A. Evaluation Methodology

The purpose of Phase 3 of the evaluation was to evaluate all short-listed bids to select a project or portfolio of projects that best meets the objectives of the RFP. Section 8.2.3 of the RFP explains the Phase 3 evaluation process:

Short-listed Proposals will undergo further assessment in the Phase Three evaluation. The Phase Three evaluation will involve portfolio system modeling, more in-depth assessment of the pricing factors noted [earlier in the RFP], additional due diligence assessment of the ability to achieve the project schedule, as well as comparison and ranking of additional non-price factors. All factors will be ranked in a Proposal ranking matrix to assist in the final selection of Proposals. The results of the ranking matrix will be considered in conjunction with portfolio economics and system reliability evaluation results from the system portfolio modeling analyses. From the final set of short-listed Proposals, PNM will select the preferred alternative or combination of alternatives and will pursue negotiations to secure resources. Provided the parties successfully negotiate an Agreement for the project, PNM will then make appropriate filings seeking approval from the Commission based on the negotiated terms of the Agreement(s).⁷⁷

The RFP identified the "additional non-price factors" included in Phase 3, including (a) commercial/contract compliance, (b) respondent characteristics, (c) environmental considerations, (d) project design plan and characteristics, (e) electrical interconnection plan and transmission system benefits, and (f) community/stakeholder considerations.⁷⁸ The RFP also allowed PNM to consider potential benefits from the projects through participation in the California Independent System Operators' ("CAISO") Energy Imbalance Market, a market in which PNM is a participant.⁷⁹

The Bid Evaluation Protocols document elaborated on the Phase 3 evaluation process. It stated that, if necessary, "additional Bidder questions and clarifications [may be] issued, as required, and more in-depth PNM SME reviews [will take] place."⁸⁰ The Bid Evaluation Matrix "may be further refined for the shortlisted resources to identify those, by technology, that evaluate most favorably."⁸¹ The Bid Evaluation Protocols stated that "various portfolios will be evaluated and analyzed via PNM's system portfolio modeling tools" and that "the system portfolio modeling will be

⁷⁷ RFP, section 8.2.3.

⁷⁸ RFP, section 8.2.3.1.

⁷⁹ RFP, section 8.3.2.1.

⁸⁰ Bid Evaluation Protocols, section 6.3.

⁸¹ Bid Evaluation Protocols, section 6.3.

utilized to determine several new resource portfolios that best satisfy the RFP objectives."⁸² The Protocols further stated:

Following the completion of the scoring matrices and the portfolio modeling, both with the 'as-evaluated' costs and the risk-adjusted costs, PNM may pursue contract negotiations with one or more Bidders. Due to timing constraints associated with the May 1, 2026 resources, PNM may also advance initial provisional negotiations sooner than completion of the evaluation based on Proposals under consideration and pending results of the final evaluation. PNM anticipates advancing multiple Proposals into a final short list selection to maintain leverage and competitive forces and to retain alternative Proposals should negotiations with selected Bidders be unsuccessful.

At the conclusion of Phase 3, a Phase 3 Evaluation Summary report will be issued and provided to the Independent Evaluator for review. Bidders will be notified accordingly regarding potential selection or non-consideration.⁸³

In our view, PNM conducted the Phase 3 evaluation in a manner that was consistent with the RFP documents, including the non-public Evaluation Protocols. PNM evaluated all bids that passed the Phase 2 evaluation—that is, all bids on the short list.

. PNM updated its

bid summary document to reflect the Phase 3 evaluation work. PNM engaged in bidder meetings with shortlisted bidders and sought further clarifications of bid terms with bidders through the bidding platform. PNM considered the results of the portfolio modeling alongside other critical information about each bid in selecting a final award group.

PNM documented its Phase 3 evaluation in the Phase 3 Report, which was shared with Bates White, consistent with the RFP. Bates White reviewed PNM's portfolio modeling assumptions, inputs, and results. We were in regular contact with PNM in the latter stages of Phase 3, particularly as results were presented and other issues arose regarding imputed debt (explained below). In addition to conference calls with PNM, we provided PNM with direct written feedback including numerous questions and comments on PNM's Phase 3 evaluation. PNM provided Bates White with written responses to our questions and comments. The final award group was developed consistent with the RFP documents and, as we explain below, was reasonable. We provide details of the Phase 3 Evaluation process below.

⁸² Bid Evaluation Protocols, section 6.3.

⁸³ Bid Evaluation Protocols, section 6.3.

VI.B. Description of Portfolio Modeling Process

The Phase 3 evaluation was largely conducted by PNM's resource planning team using commercially-available, off-the-shelf production cost simulation modeling software.⁸⁴ Modeling inputs were developed by PNM's RFP administration team and provided to the resource planning team; the EPC support team provided additional inputs and assumptions to be used in the model (e.g., resource characteristics, O&M costs). The model sought to determine the lowest cost portfolio of new resources to meet forecasted customer load needs, including all reliability planning constraints and applicable environmental regulations. To accomplish this, the model required myriad inputs and assumptions, which included:

- Costs, performance characteristics, commercial operations dates, and asset life of short-listed RFP resources. These inputs come from the bidders themselves, with the exception of the ELCC of each resource, which we explain below.
- Costs, performance characteristics, commercial operations dates, and asset life of existing PNM resources. These inputs reflect the assets that currently serve PNM's ratepayers and are intended to be consistent with PNM's IRP process and modeling.
- Forecasted PNM load, using PNM's most up-to-date base case load forecast.
- Environmental limits and requirements. These include resource-specific limitations (e.g., emissions limitations associated with Section 62-19-10(D) of the New Mexico Public Utility Act) and PNM-wide requirements (e.g., Renewable Portfolio Standard ("RPS")).
- Reliability requirements, which is based on a specified loss of load expectation ("LOLE") over the planning horizon and is explained further below.
- Transmission system capabilities and limitations, which reflects PNM's existing transmission assets.
- Fuel prices, which are consistent with those used in PNM's IRP process.
- Generic resource capital costs and characteristics that would be available to the model in future years in the planning horizon.

PNM conducted sensitivity modeling runs on several of these variables, including load forecasts, LOLE assumptions, and fuel prices. These sensitivities are important, as they allow for a more robust review of the competing portfolios' performances and avoid portfolio selections that are overly dependent on extreme assumptions around a single variable.

The ultimate metric PNM used to judge resource portfolios is the net present value ("NPV") of PNM's revenue requirement ("NPVRR") for the planning horizon (in this case, 20 years), accounting for all the costs of the new and existing resources.

⁸⁴ PNM used the EnCompass model for this purpose.

Prior to completing the evaluation PNM did make one elimination from the shortlist. PNM explained that it would not be pursuing any new natural gas-fired projects for the short list "in an effort to ensure a timely approval of the resources and an ability to support the 5/1/2026 [Guaranteed Start Date]."⁸⁵ PNM sees regulatory risk associated with incremental gas-fired generation capacity additions, and at minimum that receiving regulatory approval of such projects will take longer than a portfolio of projects that does not include gas. This extra approval time and overall regulatory risk make gas-fired projects riskier and difficult to justify for inclusion on the shortlist, according to PNM. We cannot know or predict the outcome or regulatory review duration of a gas-fired resource, but we acknowledge that this risk exists and have no evidence to suggest PNM's position is anything but within the bounds of reasonableness. As such, we did not object to PNM's decision to not include any gas-fired aero bids in the final evaluation.⁸⁶

Before we turn to the results of the Phase 3 evaluation, we highlight three key inputs to the model.

VI.B.1. RFP Resource ELCCs

Determining a given resource's contribution to addressing system capacity needs is not done by simply attributing the resource's entire nameplate capacity to the existing set of system resources. Instead, it is important to incorporate the specific technology of the resource to ensure that the capacity contribution of that resource is accurate. This is particularly important with non-dispatchable resources and in systems that have higher levels of renewable energy penetration. To take a highly simplified example, consider a system that has peak demand of 1,000 MW. A system of 1,000 MW of solar PV resources would not be a reliable solution, despite its total nameplate capacity of 1,000 MW. The PV-only system would only produce electricity during the daylight hours (and not always at full capacity). By contrast, a 1,000 MW gas-fired turbine would be able to produce its full nameplate capacity (or close to it) as needed.

To account for these and other realities and complexities in assessing resource capacity contributions, PNM (and many other utilities) use loss-of-load probability models⁸⁷ to assess the "effective load carrying capability," or ELCC, of each resource. ELCC essentially determines the capacity contribution, in MW, that can be relied upon in meeting the utility's demand plus reserves in peak hours over the planning horizon. Importantly, resource ELCCs can change dramatically as renewable and energy-limited resource penetration increases. For example, as solar penetration increases, a utility's "net load" – load, minus renewable generation – decreases, which can shift that

⁸⁵ PNM's March 28, 2023 email to Bates White.

⁸⁶ We note, too, that bid 53-2 was not originally selected for short list inclusion. This project featured installation of six LM6000s at PNM-owned San Juan totaling 235 MW. This project had other schedule and permitting risks, including securing air permits and installation of a new natural gas lateral pipeline.

⁸⁷ PNM uses the off-the-shelf, commercially-available model SERVM.

utility's peak hours to evening hours when solar generation stops producing. Thus, in systems with no solar resource penetration, new solar resource ELCCs will be much higher than those in systems with high amounts of solar resource penetration.

PNM accounted for this phenomenon by using resource-specific ELCCs for its renewable generation resources and energy storage resources. PNM used values consistent with its 2020 IRP. New solar PV received ELCCs between 0% and 6% of nameplate capacity, depending on solar penetration; new 4-hour duration battery storage resources had ELCCs between 24% and 93% of nameplate capacity, depending on battery storage penetration. It is our understanding that PNM has updated its ELCC studies, and used the updates developed for the 2023 IRP in the Phase 3 evaluation. We recommend PNM continue to monitor and, where appropriate, update its ELCC studies and use its most updated ELCC values in future evaluations and planning exercises.

VI.B.2. Reliability Planning Standard (LOLE)

One of the more important planning criteria electric utilities must determine is the amount of excess capacity to carry in order to maintain reliability – this accounts for the fact that not all resources will be online at all times or perform as expected. This excess is known as a "planning reserve margin." For example, if a utility forecasts a peak demand of 1,000 MW, and has a 10% planning reserve margin, the utility will seek to ensure 1,100 MW of resource capacity.

To determine the appropriate planning reserve margin, utilities may rely upon a calculation of the loss of load expectation, or LOLE, for their system given a peak demand forecast and a modeled supply portfolio. LOLE is a common metric calculated by production cost simulation and capacity expansion models that determines, for a given time period, the number of hours in which the system would have insufficient supply to meet demand. The most common time horizon for reporting the LOLE is the number of days in a year that supply would be insufficient to meet demand. Utilities, including PNM, use loss-of-load probability modeling software to do this; PNM uses SERVM.

Many utilities have established LOLE planning standards, and the most common is "0.1 LOLE," which means that there will be one day in ten years in which the system's supply would be insufficient to meet demand. PNM does not have a formally established standard. PNM has historically used 0.2 LOLE, a less stringent standard that translates to two loss of load event days in ten years. In its 2020 IRP report, PNM again used the 0.2 LOLE standard, but noted that "[i]n the future, we plan to transition to 0.1 days per year,"⁸⁸ or to a 0.1 LOLE.

In the Phase 3 evaluation, PNM considered both a 0.1 and 0.2 LOLE. We explain the results below.

⁸⁸ PNM 2020 IRP Report, page 45, n. 13.

VI.B.3. RFP Short-Listed Energy Storage Resource Costs (Fixed and Volumetric—Imputed Debt Issue)

The RFP offered bidders substantial flexibility in their bids, allowing resource technologies, contract/ownership structures, and bid price options of all kinds. This included projects that included energy storage (either standalone or paired with renewable generation), allowing for third-party ESAs that include capacity price components, volumetric priced components, or both; third-party PPAs for projects paired with generation resources (allowing for fixed and/or volumetric pricing); and EPC agreements that require specification of a lump sum payment to deliver the project (which would then be owned by PNM).

While these flexibilities are a best practice of competitive procurement, PNM cannot control which options bidders select. In this instance, standalone BESS offers fell into three categories: (1) standalone BESS bids under ESAs with a capacity charge (\$/kW-month); (2) standalone BESS bids under EPC contracts with lump sum (\$) bid prices; and (3) solar PV plus BESS projects that include both a fixed capacity payment (\$/kW-month) and a volumetric price component (\$/MWh). The common factor in the non-EPC types of offers quoted is that the bidder is paid a specified capacity payment, regardless of how the BESS system is used (i.e., how much energy it discharges to the grid).

During the Phase 3 evaluation, PNM identified a concern with the fixed capacity payment structure for the standalone BESS projects bid under an ESA contract and PV+BESS projects bid with the PV under a PPA contract and the BESS under an ESA contract. PNM's concern was that the fixed capacity payment structure would result in an on-balance sheet lease liability under accounting standard ASC 842 or, in the event that the contracts were not recognized as on-balance sheet liabilities, that the credit rating agencies would "impute" the fixed capacity payments under the ESAs as debt in calculating their respective credit metrics for PNM. Since those credit metrics are direct inputs into the credit rating agencies' credit ratings of PNM and its affiliates, such imputed debt adjustments could impact PNM's cost of capital and, by extension, have impacts on ratepayers.

In response to its concern, PNM reached out to all ESA and PV+BESS PPA bidders that passed the Phase 1 evaluation and that were not excluded due to non-price viability concerns to submit, at the bidder's option, a purely volumetric price offer that did not include a capacity component.⁸⁹ PNM sought volumetric-priced offers from all Phase 2 resources – not only those on the short list – to test whether, under volumetric-priced structures, the short list remained valid. Table 10 shows the bids that passed Phase 1 and the details of their original bid and volumetric priced bids. Gray-shaded projects are those not included on the short list.

⁸⁹ PNM also sought volumetric-priced offers from bidders with relevant projects and CODs of 2027 or 2028, which are being evaluated separately.

					Orig	inal Bid	Variable Bid
Bid #	Bidder Name	Project Name	Bid Technology	Bid type	PPA Price (\$/MWh)	Capacity Price (\$/kW-month)	Total Variable Price (\$/MWh)
16-1			BESS	ESA			
16-2			BESS	ESA			
45-1.1			BESS	ESA			
18-3.1			Solar & BESS	PPA			
18-3.2			Solar & BESS	PPA			
23-2.1			Solar & BESS	PPA			
23-2.2			Solar & BESS	PPA			
23-2.3			Solar & BESS	PPA			
23-2.4			Solar & BESS	PPA			
25-1			Solar & BESS	PPA			
43-1.2			BESS	ESA			
45-1.2			BESS	ESA			
12-1			Solar & BESS	PPA			
16-3			Solar & BESS	PPA			
17-2.2			Solar & BESS	PPA			
22-1			Solar & BESS	PPA			
7-3.1			Solar & BESS	PPA			
7-3.2			Solar & BESS	PPA			
11-2			Solar & BESS	PPA			
17-1.1			Solar & BESS	PPA			
17-1.2	8		Solar & BESS	PPA			
17-2.1			Solar & BESS	PPA			

Table 10: Volumetric-Priced Offers (2026 COD)

* Bidder offered a volumetric price, but required mandatory payment based on 146,000 MWh/year ** Bidder offered a volumetric price for 2026 and later COD bids; 2026 bids not evaluated due to non-price exclusion of those bids

Most bidders were able to offer a volumetric price. Typically this was structured as an adder to the output of an existing renewable facility. This means that the payment amount will vary with output. In general, as we discuss below, the expected payments went up. For example, the **second second second**

Table 10 demonstrates that the lowest priced volumetric offers for BESS projects came from bids already on the shortlist. For paired solar-plus-storage projects, the lowest priced bids came mainly from projects already on the short list, though and work of volumetric priced bids were higher than those of work (12-1) and work (22-1). However, work bid – which featured a 1:1 ratio of BESS capacity (100 MW) to its solar capacity (100 MW) produced the lowest levelized cost of capacity among the hybrid bids—this is shown in Table 2 below. Other bids, such as bids 22-1 and 12-1, had smaller battery installations relative to their PV capacity (and thus lower ELCCs), which means higher levelized costs of capacity for those projects. Moreover, PNM's view (which was reasonable, in our view) was that the Phase 2 evaluation did not rely solely on pricing for the short list selection, and thus the volumetric pricing did not justify an alteration to the selected bids for

PPA, Exhibit M.

the Phase 2 short list based upon the evaluated and ranked proposals. Additionally, after submitting its volumetric priced offers, withdrew its bids (18-3.1 and 18-3.2) from further consideration.⁹¹

Importantly, Table 10 includes only the bid prices as offered by the bidders but does not include other costs associated with the bids, including Gross Receipts Tax and losses from the BESS systems. Table 11 shows the levelized prices of the volumetric priced offers. Please note that volumetric priced offers from dissimilar resources (i.e., BESS and Solar & BESS) should not be compared. Gray-shaded projects are those not included on the short list.

					BESS LCOC (\$/kW-	
Bid #	Bidder Name	Project Name	Bid Technology	Bid type	year)	LCOE (\$/MWh)
16-1			BESS	ESA		
16-2			BESS	ESA		
45-1.1			BESS	ESA		
18-3.1			Solar & BESS	PPA		
18-3 2			Solar & BESS	PPA		
23-2.1			Solar & BESS	PPA		
23-2 2			Solar & BESS	PPA		
23-23			Solar & BESS	PPA		
23-2.4			Solar & BESS	PPA		
25-1			Solar & BESS	PPA		
43-12			BESS	ESA		
45-12			BESS	ESA		
12-1			Solar & BESS	PPA		
16-3			Solar & BESS	PPA		
17-22			Solar & BESS	PPA		
22-1			Solar & BESS	PPA		
7-3.1			Solar & BESS	PPA		
7-3.2			Solar & BESS	PPA		
11-2			Solar & BESS	PPA		
17-1.1			Solar & BESS	PPA		
17-12			Solar & BESS	PPA		
17-2.1			Solar & BESS	PPA		
			2012 3 0200		-	

Table 11: Levelized Costs of Energy, Capacity for Volumetric-Priced Offers (2026 COD)

* Bidder offered a volumetric price, but required mandatory payment based on 146,000 MWh/year

Bates White and PNM discussed this issue at length. It has been our experience that utilities may seek return on purchased power, or boosted return on equity, or more advantageous capital structures in an effort to offset the specter of imputed debt. In competitive solicitations, utilities may also seek to include imputed debt "adders" to third-party offers as well, making those offers less competitive. As independent evaluators and expert witnesses, we consistently seek evidence that rating agencies actually will impute debt and to what extent they will impute such debt.

In this case, we found that PNM had sufficient evidence that at least one rating agency (Standard & Poor's ("S&P")) is likely to impute some level of debt associated with any energy storage project that includes a fixed capacity payment.⁹² We based this conclusion primarily based on

⁹² We found no evidence that any agreements pursued in this RFP would result in on-balance sheet lease liabilities under

⁹¹ The bidder did not provide a reason for its withdrawal.

PNM's summary of meetings held with S&P and Moody's (who is not likely to impute debt), as well as our understanding of the credit rating agencies' debt imputation approaches. Most notable was the fact that S&P stated in a September 2022 opinion that "if financial metrics decline such that PNM's ratio of CFO pre-W/C to debt is sustained below 16% the rating could be downgraded."⁹³ This provided to us clear evidence that additional imputed debt could potentially lead to real-world consequences for PNM.

We also discussed the amount of debt imputation likely to occur. S&P's debt imputation calculation depends on the portion of the ESAs that are considered for imputation (assumed to be 70% by PNM) and the risk reduction applied to the ESAs (assumed to be 50-75% by PNM). The risk reduction factor is typically driven by the certainty of cost recovery associated with the ESAs, where more certain cost recovery leads to higher discount factors. PNM is currently unable to recover the costs of the ESAs through a fuel adjustment charge, nor does PNM have a legislative mandate that assures cost recovery. PNM must recover the costs of the ESAs through base rates, unless PNM seeks an alternative approach (such as a rider) from the PRC. Such a request would carry regulatory risk, and PNM provided evidence demonstrating this risk. We considered multiple approaches to debt imputation, including targeting cash flow metric thresholds and imputation of equity. The selected method ultimately had no impact on the portfolio modeling results or the Phase 3 evaluation.

Importantly, we inquired with PNM about whether it would actually pursue offsetting the cost of imputed debt with the PRC if it was to select fixed price offers. PNM confirmed it would likely pursue cost recovery. Given this, we found it reasonable that PNM sought volumetric-priced offers from energy storage bidders since it would be possible that the volumetric-priced offers – which were likely to have higher evaluated direct costs – would actually be lower cost to customers due to the avoidance of imputed debt and its effects. PNM was not obligated to select the volumetric price offers but would only have the option to do so.

VI.C. Results

PNM conducted its portfolio modeling for the following resources, each of which was on the short list as having passed Phase 2. For energy storage projects with a fixed capacity payment, PNM modeled both the original bids and the volumetric-priced offers, if applicable.

accounting standard ASC 842.

⁹³ Moody's Investors Service, "Public Service Company of New Mexico: Update to credit analysis," September 30, 2022, p. 3.

						Energy	
					Generation	Storage	
					Capacity	Capacity	ELCC
Bid #	Bidder Name	Project Name	Technology	Bid type	(MW)	(MW)	(MW)
53-1			Gas - Aero	EPC	39	-	38
23-1.1	_		Solar	PPA	200	-	12
23-1.2			Solar	PPA	175	-	11
23-1.3			Solar	PPA	150	-	9
23-1.4	-		Solar	PPA	100		6
16-1			BESS	ESA	-	100	89
16-2			BESS	ESA	-	50	44
35-1			BESS	EPC	-	60	53
45-1.1			BESS	ESA	-	100	89
35-2.3			BESS	EPC	-	30	31
35-2.4			BESS	EPC	-	70	13
18-3.1			Solar & BESS	PPA	165	50	99
18-3.2			Solar & BESS	PPA	165	100	54
23-2.1			Solar & BESS	PPA	200	100	101
23-2.2			Solar & BESS	PPA	175	88	88
23-2.3			Solar & BESS	PPA	150	75	76
23-2.4			Solar & BESS	PPA	100	50	50
25-1			Solar & BESS	PPA	100	100	95

Table 12: Bids Modeled in Phase 394

PNM's portfolio modeling conducted a total of sixteen (16) primary model runs (with a number of sensitivities to the primary simulations) using the EnCompass model. The model runs considered both fixed and volumetric-priced offers of the energy storage resources, as well as assessed a variety of sensitivities. For example, PNM considered different load scenarios, both a base case and a case in which an additional 50 MW of peak load is added (to reflect potential "economic development" load in its footprint). PNM considered the impact of different levels of imputed debt, and in some cases required the model to select a project in the CCSD (Bid 23 and variants are to be located in the CCSD). PNM also tested both a 0.1 LOLE and a 0.2 LOLE.

The portfolio modeling results demonstrated that four projects were selected in almost every scenario.

- Bid 16-1, 100 MW / 400 MWh standalone BESS project was selected in all 16 scenarios.
- Bid 16-2, 50 MW / 200 MWh standalone BESS project was also selected in all 16 scenarios.

⁹⁴ Source: PNM June 12, 2023 slides sent to Bates White, slide 7. Note the storage capacity for bids 35-2.3 and 35-2.4 do not match the slides, but instead match the Bid Summary Document. ELCCs reflect the June 12 slides.

- Bid 25-1, 100 MW solar plus 100 MW / 400 MWh BESS project was selected in 14 out of 16 scenarios.
- Bid 35-1, 60 MW / 240 MWh BESS project was selected in 13 out of 16 scenarios.

No other project was selected in more than five scenarios. (Bid 23-2.4 was selected in five scenarios.) The overall uniformity of the model runs across the scenarios give us confidence that PNM identified the optimal subset of potential winning projects. See Appendix A for modeling results of the primary scenarios used by PNM.

PNM's RFP sought capacity of 200-1,000 MW, with up to 500 MW being needed in 2026.⁹⁵ (The evaluation of the bids with 2027 and 2028 CODs is ongoing.) During the Phase 3 evaluation, PNM determined that in order to meet the 0.2 LOLE standard, it would require approximately 210 MW of capacity; under the 0.1 LOLE standard, the amount of capacity needed would be 270 MW.⁹⁶ Here, the summation of the three leading bids – 16-1, 16-2, and 25-1 – would result in a total accredited capacity of 228 MW. Thus, the three leading bids would be sufficient to meet the 0.2 LOLE standard, but not the more stringent 0.1 LOLE standard. To achieve the minimum to meet the 0.1 LOLE standard, the next best bid (35-1) must be added to the portfolio, resulting in a total accredited capacity of 281 MW. PNM decided to pursue contracts with all four resources.

Bates White's role as independent evaluator did not include an analysis of the appropriate LOLE for PNM. We recognize that PNM has historically planned its system to a 0.2 LOLE standard, but indicated in its most recent IRP report that it planned to transition to a 0.1 LOLE. Here, we can say that, for the LOLE of 0.2, the selected projects (16-1, 16-2, and 25-1) represent the optimal portfolio. If an LOLE of 0.1 is pursued, the selected projects (16-1, 16-2, 25-1, and 35-1) represent the optimal portfolio. (PNM ultimately pursued the latter portfolio in planning to meet the 0.1 LOLE standard.)

The remaining key question was, for the two projects (16-1 and 16-2) and the project (25-1), whether to select the fixed capacity price option or the volumetric-priced option. PNM's portfolio modeling demonstrated that the cost of moving to a volumetric price contract for the recommended portfolio is estimated to be about for a none of an NPV basis (in 2023\$) that is, ignoring any impact of imputed debt, the volumetric cost options for the formation and formation bids increase the total cost of the portfolio by formation on an NPV basis (in 2023\$). However, when the cost of imputed debt is added, the cost of the fixed capacity price portfolio increases by between formation and formation on the imputed debt method and assumptions used. Thus, by including the likely impact of imputed debt, the cost of the fixed capacity price portfolio is

⁹⁵ RFP, section 1.3.

⁹⁶ PNM's June 12, 2023 presentation, slide 2.

either approximately the same as or up to **Summary** *higher* than the variable priced portfolio. This is shown in Table 13 below.

Pricing		NPV of PNM Revenue Requirement (\$mm 2023)	Comparison to Variable Price Portfolio (\$mm)	Comparison to Variable Price Portfolio (%)
Variable Pricing	Γ			
Fixed Capacity, No Imputed Debt	\Box			
Fixed Capacity (Low Imputed Debt), Credit Ratio Method	Γ			
Fixed Capacity (Low Imputed Debt), Capital Structure Method	\Box			
Fixed Capacity (High Imputed Debt), Credit Ratio Method	Γ			
Fixed Capacity (High Imputed Debt), Capital Structure Method	Γ			

Table 13: Comparison of Fixed Capacity Price, Volumetric-Priced Portfolios

It should be noted that the percentage difference between the volumetric-priced portfolio and the fixed capacity payment portfolios at various levels of assumed imputed debt vary by less than 1%, and so can be considered comparable in cost (given the **Sector** revenue requirements at stake). In addition to the small cost difference, PNM had concerns about the regulatory uncertainty in getting recovery of the cost of imputed debt and would not know the outcome of that regulatory request until after the resources would be approved and contracted. Thus, PNM selected the volumetric-priced offers.

We agreed with PNM's selections. As a final check on the selections, we reviewed the revisions to the energy storage agreements submitted by **and to** assess the additional redlines made by those bidders to reflect the volumetric price offers. (Such changes were necessary to reflect the different payment structure.) In our view, the revisions made by the bidders did not vary materially from the original bids submitted in the RFP. Thus, we were in agreement with PNM's final award group selections, which are shown in Table 14 below.

					Generation Capacity	Energy Storage Capacity	ELCC
Bid #	Bidder Name	Project Name	Technology	Bid type	(MW)	(MW)	(MW)
16-1			BESS	ESA	-	100	89
16-2			BESS	ESA	-	50	44
25-1			Solar & BESS	PPA	100	100	95
35-1			BESS	EPC	-	60	53
			100	310	281		

Table 14: Final Award Group Selections

VI.D. Conclusions of the Independent Evaluator

Our review suggests the following conclusions:

VI.D.1. The winning bids showed value.

All four of the winning projects show significant value to PNM customers in meeting PNM's long-term capacity needs. As explained above, the portfolio modeling results demonstrated that four projects were selected in almost every scenario. The selected bids also were the highest scoring bids in the Phase 2 evaluation in their respective categories. Certain evaluation assumptions impacted the selection of these four bids. We explain those drivers below.

VI.D.2. Assumptions regarding LOLE have a material impact on the optimal portfolio.

The LOLE assumption used in this RFP had a significant impact on the RFP results. As we explain above, during the Phase 3 evaluation, PNM determined that in order to meet the 0.2 LOLE standard, it would require approximately 210 MW of capacity, while under the 0.1 LOLE standard, the amount of capacity needed would be at least 270 MW—a difference of at least 60 MW. The summation of the three leading bids – 16-1, 16-2, and 25-1 – would result in a total accredited capacity of 228 MW. Thus, the three leading bids would be sufficient to meet the 0.2 LOLE standard, but not the more stringent 0.1 LOLE standard. To achieve the minimum to meet the 0.1 LOLE standard, the next best bid (35-1) would have to be added to the portfolio, resulting in a total accredited capacity of 281 MW.

PNM pursued contracts with all four resources, and our role as independent evaluator did not include an analysis of the appropriate LOLE for PNM. We recognize that PNM has historically planned its system to a 0.2 LOLE standard but indicated in its most recent IRP report that it planned to transition to a 0.1 LOLE.

Going forward, it will be important for PNM to work with stakeholders and the PRC to finalize a resource planning standard. This will reduce uncertainty regarding PNM's planning process and enhance RFP evaluation results by having better-defined RFP targets. We include a recommendation on this point below.

VI.D.3. Assumptions regarding debt equivalence have a material impact on the optimal portfolio.

One of the more significant drivers of the RFP results (at least, when it came to the final design of the signed contracts) was the impact of inclusion of imputed debt costs for bids from

projects with an energy storage component for which a fixed price payment was included. As explained above, PNM provided Bates White with sufficient evidence that S&P is likely to impute some amount of debt associated with energy storage agreements that specify a fixed capacity payment, and as a result, would increase costs to PNM customers beyond the ESA payments in order to mitigate the risk of a credit downgrade. To combat this, PNM (a) evaluated such fixed price bids with a debt imputation adder and (b) invited impacted bidders to submit volumetric-priced offers that would not be subject to debt imputation. PNM's final award group includes three projects – 16-1, 16-2, and 25-1 – which feature energy storage. In each case, PNM selected the volumetric-priced offers from these projects as economically superior to the fixed price offers (when debt imputation costs are considered).

We agreed with PNM's evaluation and selections, given the evidence PNM provided regarding S&P's likelihood of imputing debt. However, going forward, this issue needs resolution and clarity from the rating agencies. In our view, bidders would prefer the more assured fixed-price payment scheme over a volumetric priced scheme. Moreover, not all standalone BESS resources can be linked to a renewable project as the projects here are.

As we understand it, PNM will place certain energy storage assets into service in 2024 that are under fixed price agreements, at which point the rating agencies may update their credit ratings and metrics and may impute debt for such agreements. Should the rating agencies not impute debt on energy storage agreements with fixed price payments, future RFP evaluations should exclude imputed debt from consideration. If S&P (or any other major rating agency) imputes debt, PNM can and should consider imputed debt costs in future RFPs and evaluations and should refine its evaluation to match the methodology and/or amount imputed by the rating agency, if applicable.

VI.D.4. Interconnection viability was a material factor in determining the optimal portfolio.

The RFP evaluation eliminated numerous bids from consideration for the short list and/or final award group due to the bids' unlikeliness to meet a Guaranteed Start Date of May 1, 2026 or earlier. Many of these eliminations were done in Phase 1 of the evaluation and were centered around the RFP's preference that bid-in projects be in interconnection Cluster 13 or earlier.⁹⁷ Others, though in Cluster 13 or earlier, were judged by PNM's subject matter experts to lack sufficient justification or documentation of the ability to meet the minimum Guaranteed Start Date. As we explain above, we found PNM's reasoning for the elimination of these bids to be reasonable, and we note that these projects were able to specify a 2027 or 2028 Guaranteed Start Date for consideration in the evaluation

⁹⁷ RFP, section 1.3.

of those bids later on in the RFP process. We nevertheless underscore the impact of the time it takes to study and interconnect projects to PNM's grid on competitive procurement results.

VII. Contract Negotiations and Final Contracts with Winning Bidders

In July 2023, PNM notified the three winning bidders of their selection to the final award group and initiated contract negotiations. Other bidders were informed of their non-selection. PNM sought to expedite negotiations and held in-person discussions shortly after notification in an effort to accelerate the negotiations process.

Our role in this portion of the RFP was to monitor whether the final contracts executed by PNM and its counterparties retain the same costs, benefits, and risk profile as the evaluated bids. To some degree, we monitored negotiations by participating by phone in some instances and receiving redlined PPA/ESA/EPC exchanges between the parties. We did not monitor every contract negotiation meeting (and in some cases were not invited to those negotiations), nor were we copied on all email correspondence between the parties. However, we were provided some copies of the agreements as they evolved through the negotiations process and ultimately received the final executed versions. We provided comments and questions to PNM during this process, and PNM was responsive to those requests. Going forward, we would recommend that PNM include the Independent Evaluator on all correspondences during the contract negotiation phase, including inviting the Independent Evaluator to listen in on all negotiation meetings. Doing so removes any discretion from PNM and the suppliers, and rather places the onus on the Independent Evaluator to efficiently manage the monitoring of the contract negotiations process, which can be lengthy in many cases. It is not necessary for the Independent Evaluator to attend every negotiations call or meeting or read every word of each redlined version of each agreement exchanged by the negotiating parties. However, it is preferable and a best practice to leave determinations on how best to monitor negotiations to the Independent Evaluator. We include a recommendation to this effect.

Negotiations with bidders varied in their speed. PNM was able to successfully execute ESAs with NextEra for both the Sky Ranch and Route 66 battery storage projects (bids 16-1 and 16-2, respectively) on September 27, 2023. Clenera and PNM executed the PPA and ESA for the Quail Ranch solar-plus-storage project on October 24 2023 (bid 25-1). DEPCOM and PNM executed the EPC agreement for the Sandia energy storage project on October 24, 2023 (bid 35-1).

Our review of the filed PPA, ESAs, and EPC agreements is that they are reasonable and retain the value of the bidders' offers to PNM and its ratepayers. PNM retained key provisions of each agreement that protect ratepayers and require the winning bidder to perform as promised. Major pricing provisions were retained and we observed no major edits to the agreements that materially changed the promised net benefits and risk profile of a winning project. To provide some highlights from each agreement, we provide some key points:

• NextEra Sky Ranch 100 MW / 400 MWh BESS: The Sky Ranch BESS project will be colocated with the Sky Ranch Solar project, a 190 MW project under development by NextEra with an Expected Commercial Operation Date of December 31, 2023.⁹⁸ The ESA's pricing matches its volumetric-priced offer,⁹⁹ which requires PNM to pay an all-in price of \$28.04/MWh for all output from the PV system plus curtailed energy.¹⁰⁰ The ESA specifies that PNM may pay an additional \$1.69/MWh if it is determined that the project's grid-charging capability has an impact on the cost of the Industrial Revenue bond that is planned to be issued for the project. The term of the agreement is from the date the project.¹⁰¹ The Guaranteed Start Date is May 1, 2026, consistent with the bid.¹⁰²

The contract contains some key ratepayer protections. It requires the seller to pay damages for delays in meeting commercial operations,¹⁰³ or in meeting commercial operations at a capacity lower than the project's promised capacity,¹⁰⁴ though the seller is allowed up to 180 days of excused delays if such delays are caused by such events as interconnection delays and delays in obtaining zoning approvals, environmental approvals, and other governmental approvals.¹⁰⁵ The seller is also required to post and maintain \$125,000/MW for development period security and \$90,000/MW for delivery term security.¹⁰⁶ The ESA specifies that the seller will be in default of the contract if the project fails to achieve 80% availability over any 24-month term.¹⁰⁷ The seller will also be in default if the project fails to maintain a capacity that is at least 90% of its promised capacity.¹⁰⁸ The seller is required to conduct annual performance testing of the BESS, and PNM has the right to request additional performance tests in the event of adverse changes in the project's capabilities.¹⁰⁹ Should the seller become eligible for additional tax incentives during the term of the agreement, the seller is required to give 60% of the tax incentives to PNM.¹¹⁰

¹⁰⁰ Sky Ranch ESA, section 8.1.

- ¹⁰³ Sky Ranch ESA, section 3.7.
- ¹⁰⁴ Sky Ranch ESA, section 3.8.
- ¹⁰⁵ Sky Ranch ESA, section 3.6.
- ¹⁰⁶ Sky Ranch ESA, section 19.1.
- ¹⁰⁷ Sky Ranch ESA, section 12.1(B)(4).
- ¹⁰⁸ Sky Ranch ESA, section 12.1(B)(6).
- ¹⁰⁹ Sky Ranch ESA, section 10.5.
- ¹¹⁰ Sky Ranch ESA, section 8.1(C).

⁹⁸ Sky Ranch PPA, section 3.1.

⁹⁹ Sky Ranch ESA, section 3.1.

¹⁰¹ Sky Ranch ESA, section 3.1.

¹⁰² Sky Ranch ESA, section 3.1.

The ESA has two key termination clauses we wished to highlight. First, a conditions precedent for this ESA is lender consent, which if not received by February 1, 2024, allows the seller to terminate the agreement. In such an event, seller would pay PNM \$75,000/MW in damages.¹¹¹ Second, the ESA may be terminated if regulatory approval from the PRC is not received by October 1, 2024.¹¹²

• NextEra Route 66 50 MW / 200 MWh BESS: The Route 66 BESS project will be co-located with the Route 66 Solar project, a 49.5 MW project under development by NextEra.¹¹³ The ESA's pricing matches its volumetric-priced offer,¹¹⁴ which requires PNM to pay an all-in price of \$48.95/MWh for all output from the PV system plus curtailed energy.¹¹⁵ The ESA specifies that PNM will pay an additional \$1.96/MWh if it is determined that the project's grid-charging capability has an impact on the cost of the Industrial Revenue Bond that is planned to be issued for the project. The term of the agreement is from the date the project reaches commercial operations through May 27, 2047.¹¹⁶ The capacity of the BESS is specified in the ESA at 49.5 MW,¹¹⁷ down 0.5 MW from the bid-in amount due to injection limits at the point of interconnect. The Guaranteed Start Date is May 1, 2026, consistent with the bid.¹¹⁸

The contract contains some key ratepayer protections. It requires the seller to pay delay damages for delays in meeting commercial operations,¹¹⁹ or in meeting commercial operations at a capacity lower than the project's promised capacity,¹²⁰ though the seller is allowed up to 180 days of excused delays if such delays are caused by such events as interconnection delays and delays in obtaining zoning approvals, environmental approvals, and other governmental approvals.¹²¹ The seller is also required to post and maintain \$125,000/MW for development period security and \$90,000/MW for delivery term security.¹²² The ESA specifies that the seller will be in default of the contract if the project fails to achieve 80% availability over any 24-month term.¹²³ The seller will also be in default

- ¹¹² Sky Ranch ESA, section 17.3(B)(3).
- ¹¹³ Route 66 PPA, section 3.1.
- ¹¹⁴ Route 66 ESA, section 3.1.
- ¹¹⁵ Route 66 ESA, section 8.1.
- ¹¹⁶ Route 66 ESA, section 3.1.
- ¹¹⁷ Route 66 ESA, Exhibit A.
- ¹¹⁸ Route 66 ESA, section 3.1.
- ¹¹⁹ Route 66 ESA, section 3.7.
- ¹²⁰ Route 66 ESA, section 3.8.
- ¹²¹ Route 66 ESA, section 3.6.
- ¹²² Route 66 ESA, section 19.1.
- ¹²³ Route 66 ESA, section 12.1(B)(4).

¹¹¹ Sky Ranch ESA, section 6.3.

if the project fails to maintain a capacity that is at least 90% of its promised capacity.¹²⁴ Seller is required to conduct annual performance testing of the BESS, and PNM has the right to request additional performance tests in the event of adverse changes in the project's capabilities.¹²⁵ Should the seller become eligible for additional tax incentives during the term of the agreement, the seller is required to give 60% of the tax incentives to PNM.¹²⁶

The ESA has two key termination clauses we wished to highlight. First, a conditions precedent for this ESA is lender consent, which if not received by February 1, 2024, allows the seller to terminate the agreement. In such an event, seller would pay PNM \$75,000/MW in damages.¹²⁷ Second, the ESA may be terminated if regulatory approval from the PRC is not received by October 1, 2024.¹²⁸

 Clenera Quail Ranch 100 MW Solar + 100 MW / 400 MWh BESS: As a hybrid project, the Quail Ranch project required both a PPA and ESA. The pricing terms, Guaranteed Start Date, and 20-year term all match the bid.¹²⁹

The contracts contain some key ratepayer protections. They require the seller to pay delay damages for delays in meeting commercial operations,¹³⁰ or in meeting commercial operations at a capacity lower than the project's promised capacity,¹³¹ though the seller is allowed up to 180 days of excused delays if such delays are caused by force majeure or interconnection delays.¹³² The seller is also required to post and maintain \$80,000/MW for development period security (for both the PPA and ESA) and \$100,000/MW for delivery term security (again, for both the PPA and ESA).¹³³ The contracts specify that the seller will be in default of the contract if the project fails to achieve 80% availability (for the PPA) and 85% availability (for the ESA) over any 24-month term.¹³⁴ The seller will also be in default of the ESA if the BESS project fails to maintain a capacity that is at least 90% of its promised capacity.¹³⁵ The seller is required to conduct annual performance testing of the BESS.¹³⁶

- ¹²⁸ Route 66 ESA, section 17.3(B)(3).
- ¹²⁹ Clenera PPA, section 3.1; Clenera ESA, section 3.1.
- ¹³⁰ Clenera PPA, section 3.7; Clenera ESA, section 3.7.
- ¹³¹ Clenera PPA, section 3.8; Clenera ESA, section 3.8.
- ¹³² Clenera PPA, section 3.6; Clenera ESA, section 3.6.
- ¹³³ Clenera PPA, section 19.1; Clenera ESA, section 19.1.
- ¹³⁴ Clenera PPA, section 12.1(B)(5); Clenera ESA, section 12.1(B)(5).
- ¹³⁵ Clenera ESA, section 12.1(B)(7).
- ¹³⁶ Clenera ESA, section 10.5.

¹²⁴ Route 66 ESA, section 12.1(B)(6).

¹²⁵ Route 66 ESA, section 10.5.

¹²⁶ Route 66 ESA, section 8.1(C).

¹²⁷ Route 66 ESA, section 6.3.

or the BESS during the term of the agreement, the seller is required to give 50% of the tax incentives to PNM.¹³⁷

The PPA does limit PNM to 8,333 MWh/year of curtailment of solar output from the project for economic savings.¹³⁸ Each agreement may be terminated if regulatory approval from the PRC is not received by June 3, 2024.¹³⁹

DEPCOM Sandia Substation 60 MW / 240 MWh BESS: As an EPC project, DEPCOM will engineer and construct the BESS project pursuant to the executed EPC agreement. The EPC agreement matched the project's key bid parameters, including the 60 MW capacity and four-hour duration (240 MWh maximum discharge).¹⁴⁰ The EPC agreement specifies a Substantial Completion Guaranteed Date of April 1, 2026.¹⁴¹ The total capital cost of \$118,122,460¹⁴² is slightly higher than the bid of \$113,170,096 to account for additional scope items and design details that PNM desired to incorporate into the project.¹⁴³ Bates White understands that PNM will seek regulatory approvals based on the original bid price, not the increased contract price, and that PNM will seek to manage those cost increases within the contingency allowed for under New Mexico law.

The contract contains some key ratepayer protections. It requires the seller to pay delay damages for delays in meeting commercial operations or in meeting commercial operations at a capacity lower than the project's promised capacity.¹⁴⁴ The EPC agreement also allows DEPCOM to "buy-down" the project to its actual capability if that actual capability fails to pass acceptance testing at the Substantial Completion Deadline Date.¹⁴⁵ The seller is required to provide to PNM performance security in the form of a performance bond equal to the EPC contract price.¹⁴⁶ The seller must also provide a warranty bond to PNM upon final completion of the project in an amount equal to 10% of the contract price which remains in effect until 180-days after warranty expiration.¹⁴⁷ The seller must warranty its work, materials, and

¹³⁷ Clenera PPA, section 8.1(C); Clenera ESA, section 8.1(C).

¹³⁸ Clenera PPA, section 4.1(B).

¹³⁹ Clenera PPA, section 17.3(B)(3); Clenera ESA, section 17.3(B)(3).

¹⁴⁰ DEPCOM EPC, Exhibit I, section I.3.1.

¹⁴¹ DEPCOM EPC, Definitions.

¹⁴² DEPCOM EPC, section 6.1(a).

¹⁴³ These include a site security wall in lieu of a fence, a site security system, grid forming inverters, Builder's All Risk insurance (provided by the EPC Contractor), an increase in the generation step up transformer, and substation size to allow for additional capacity export from the site for flexibility in augmentation and future growth in the project, and some required control/SCADA scope additions.

¹⁴⁴ DEPCOM EPC, section 16.1.

¹⁴⁵ DEPCOM EPC, section 16.2.

¹⁴⁶ DEPCOM EPC, section 4.24.

¹⁴⁷ DEPCOM EPC, section 7.7.

equipment for a two-year period starting at the Substantial Completion Date.¹⁴⁸ The seller may not extend the Substantial Completion Date or be allowed any change in the contractual scope of work as a result of the site conditions, excepting certain unforeseen site conditions.¹⁴⁹ The seller must also meet performance guarantees, such as a 97% availability and a round-trip efficiency of 86.7%.¹⁵⁰ The EPC agreement also requires the seller to meet labor requirements including payment of prevailing wages; failure to meet the labor requirements can result in labor compliance payments by the seller to its laborers and apprentices.¹⁵¹ The labor requirements are necessary for project compliance to qualify for tax credits under the Inflation Reduction Act.

The EPC agreement does allow the seller to adjust the contract price at the time of placement of the purchase order for the battery storage equipment if the price of lithium carbonate increases (or decreases) by more than 10% from an assumed baseline price of 254,000 RMB per ton.¹⁵² (Current spot prices, as of October 20, 2023, are approximately 160,000-165,000 RMB per ton.)¹⁵³ However, it is Bates White's understanding based on discussions with PNM that if the price should increase based on this mechanism PNM will not seek regulatory approval of the price increase and instead will manage those cost increases within the contingency allowed for under New Mexico law. If the price is adjusted downward, PNM will pass those savings back to customers. The agreement may be terminated if regulatory approval from the PRC is not received by June 1, 2024.¹⁵⁴

¹⁴⁸ DEPCOM EPC, section 18.

¹⁴⁹ DEPCOM EPC, section 13.2.

¹⁵⁰ DEPCOM EPC, Exhibit I.

¹⁵¹ DEPCOM EPC, section 11.9.

¹⁵² DEPCOM EPC, section 6.1(b); see also Exhibit V for adjustment determination and formula.

¹⁵³ Trading Economics, "Lithium," accessed October 22, 2023, <u>https://tradingeconomics.com/commodity/lithium</u>.

¹⁵⁴ DEPCOM EPC, section 34.2(e).

VIII. Recommendations

We recommend that the PRC approve the contracts as filed, including (a) NextEra's Sky Ranch standalone BESS project ESA, (b) NextEra's Route 66 standalone BESS project ESA, (c) Clenera's solar PV-plus-BESS project PPA and ESA, and (d) DEPCOM's Sandia Substation standalone BESS project EPC agreement.¹⁵⁵ We base our recommendation on our participation in every phase of the RFP process, including: (a) design and issuance of the RFP; (b) bid receipt and qualification; (c) evaluation and selection of the short list; (d) evaluation and selection of the final award group; and (d) contract negotiations. As we explain in the report, all four of the winning projects show significant value to PNM customers in meeting PNM's long-term capacity needs and portfolio modeling results demonstrated that these four projects were selected in almost every scenario. The selected bids also were the highest scoring bids in the Phase 2 evaluation in their respective categories. As noted above, the selection of all four resources is dependent on the use of a 0.1 LOLE, should the Commission determine that a 0.2 LOLE is the more appropriate planning standard then we would not recommend the acceptance of the DEPCOM contract.

We also make the following recommendations for future PNM RFPs:

- We recommend PNM continue to monitor and, where appropriate, update its ELCC studies and use its most updated ELCC values in future evaluations and planning exercises.
- We recommend that PNM works with stakeholders and the PRC to finalize a resource planning standard. This will reduce uncertainty regarding PNM's planning process and enhance RFP evaluation results by having better-defined RFP targets.
- We recommend PNM solicits comments from interested parties on draft RFP documents. Often, outside stakeholders can provide useful advice and seek reasonable clarifications in the draft documents that can lead to a better final product that is ultimately issued to market.
- We recommend PNM solicits comments from interested parties on its *pro forma* agreements, including PPAs, ESAs, and EPC agreements (among others). Agreements of the length and complexity of the PPAs, ESAs, EPC, and other agreements can also benefit from the review of third-party developers and other interested stakeholders that have experience with such documents, including from other jurisdictions.

¹⁵⁵ Inclusion of the DEPCOM Sandia Substation standalone BESS project EPC agreement in our recommendation is premised on PNM's use of a 0.1 LOLE planning standard, as explained in the body of this report. Using a 0.2 LOLE planning standard, we would not include this project in our recommendation.

- We recommend PNM increase the visibility of the Independent Evaluator during the RFP process by, for example, listing direct contact information in the RFP documents. This can increase bidder confidence in the overall process.
- We recommend that PNM include the Independent Evaluator on all correspondences during the contract negotiation phase, including inviting the Independent Evaluator to all negotiation meetings.

Appendix A. Phase 3 Modeling Results Summary

Table 15: Phase 3 Scenario Modeling Results Summary

Bid Number	Project	Capacity (MW)	Scenario 1 (Base	Scenario														
			Case)	2	3	4	5	6	1	8	9	10	11	12	13	14	15	16
16-1B		100	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16-2B		50	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25-1B		100	4	1	4	0	4	0	4	4	4	1	1	1	1	1	4	4
25-1S		100			· · ·	U	1 - C	U	1.1			1	1	1 - C	1	· · · ·	1 - C	1
35-1B		60	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	0
23-2.4B		50	0	1	0	0	0	1	0	0	4	0	1	0	1	0	0	0
23-2.4S		100	v	· · ·	v	v	U		v	U	- 1	U		U	· · · ·	v	U	v
35-2.4B		35	0	0	0	0	0	1	0	0	0	1	0	1	0	1	0	0
23-2.3B		75	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
23-2.3S		150	•	•	•	· · · ·	•	v	•	•	•	v	v	•	v	•	0	•
45-1.1B		100	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
53-1		39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
18-3.1B		50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-3.1S		165	•	·				·			· ·		<u> </u>	Ŭ	Ŭ	· ·		
18-3.2B		100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-3.2S		165												Ŭ	Ŭ		0	
23-1.1S		200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-1.2S		175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-1.3S		150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-1.4S		100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-2.1B		100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-2.1S		200					-	, ,		-		-					-	
23-2.2B		88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-2.2S		175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35-2.3B		15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Installed Capacity Added (MW)			410	500	410	435	410	395	410	450	560	445	560	445	560	445	410	389
Total Firm Capacity Added (MW)			301	295	301	279	301	287	301	337	351	333	351	333	351	333	301	282
	NPVRR (\$ Billions)																	

Table 16: Phase 3 Scenario Modeling Scenario Explanations

Scenario	PNM Scenario Name	Explanation of Scenario
1	RFP26-NNC-16PRM	Base case; fixed price offers; no imputed debt adders; 0.1 LOLE, gas-fired resources prohibited
2	RFP26-NNC-16PRM-23-OP	Same as Scenario 1, except force model to select a CCSD project
3	RFP26-NNC-16PRM-IDL	Same as Scenario 1, but add low range of imputed debt
4	RFP26-NNC-16PRM-IDL-23-OP	Same as Scenario 2, but add low range of imputed debt
5	RFP26-NNC-16PRM-IDM	Same as Scenario 1, but add high range of imputed debt
6	RFP26-NNC-16PRM-IDM-23-OP	Same as Scenario 2, but add high range of imputed debt
7	RFP26-NNC-16PRM-V	Same as Scenario 1, but add variable priced offers
8	RFP26-NNC-16PRM-ED50	Same as Scenario 1, but add 50 MW of economic development load
9	RFP26-NNC-16PRM-ED50-23-OP	Same as Scenario 2, but add 50 MW of economic development load
10	RFP26-NNC-16PRM-ED50-IDL	Same as Scenario 3, but add 50 MW of economic development load
11	RFP26-NNC-16PRM-ED50-IDL-23-OP	Same as Scenario 4, but add 50 MW of economic development load
12	RFP26-NNC-16PRM-ED50-IDM	Same as Scenario 5, but add 50 MW of economic development load
13	RFP26-NNC-16PRM-ED50-IDM-23-OP	Same as Scenario 6, but add 50 MW of economic development load
14	RFP26-NNC-16PRM-ED50-V	Same as Scenario 7, but add 50 MW of economic development load
15	RFP26-TN-16PRM	Same as Scenario 1, but allow model to select gas generic resources
16	RFP26-TN-16PRM-53-1	Same as Scenario 1, but allow model to select La Luz gas project

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF PUBLIC SERVICE)COMPANY OF NEW MEXICO'S APPLICATION)FOR APPROVAL OF PURCHASED POWER)AGREEMENTS, ENERGY STORAGE)AGREEMENTS, AND CERTIFICATES OF PUBLIC)CONVENIENCE AND NECESSITY FOR SYSTEM)RESOURCES IN 2026,)PUBLIC SERVICE COMPANY OF NEW MEXICO,)

Case No. 23-00353-UT

SELF AFFIRMATION

Jeremy W. Heslop, Senior Manager, Generation Contracts, Public Service Company of

New Mexico, upon being duly sworn according to law, under oath, deposes and states: I have

read the foregoing Supplemental Testimony of Jeremy W. Heslop and it is true and accurate

based on my personal knowledge and belief.

DATED this 3rd day of January, 2024.

Applicant

/s/ Jeremy W. Heslop JEREMY W. HESLOP

GCG # 531939