

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION)
OF PUBLIC SERVICE COMPANY OF NEW)
MEXICO FOR DECERTIFICATION AND)
ABANDONMENT OF 114MW OF LEASED)
PALO VERDE NUCLEAR GENERATING)
STATION CAPACITY AND SALE AND)
TRANSFER OF RELATED ASSETS)
AND FOR APPROVAL TO PROCURE)
NEW RESOURCES UNDER 17.9.551 NMAC)
PUBLIC SERVICE COMPANY OF NEW)
MEXICO,)

Applicant.)
_____)

Case No. 21-____-UT

DIRECT TESTIMONY

OF

ROGER W. NAGEL

April 2, 2021

**NMPRC CASE NO. 21-____-UT
INDEX TO THE DIRECT TESTIMONY OF
ROGER W. NAGEL**

**WITNESS FOR
PUBLIC SERVICE COMPANY OF NEW MEXICO**

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PNM Exhibit RWN-1 – Resume of Roger W. Nagel

PNM Exhibit RWN-2 – Aion Energy Scope of Services – RFP Development

PNM Exhibit RWN-3 – Aion Energy Scope of Services – RFP Bid Evaluation Support

PNM Exhibit RWN-4 – PNM 2020 Replacement Generation RFP

PNM Exhibit RWN-5 – Proposal Evaluation Methodology

PNM Exhibit RWN-6 – Phase 1 Bid Evaluation Summary

PNM Exhibit RWN-7 – Phase 2 Bid Evaluation Summary

PNM Exhibit RWN-8 – Phase 3 Bid Evaluation Summary

AFFIDAVIT

1 University in May 1992, with a bachelor's degree in Mechanical Engineering. I am
2 a Registered Professional Engineer in the State of Michigan. My experience and
3 education are more fully described in PNM Exhibit RWN-1.

4

5 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE COMMISSION?**

6 **A.** Yes, PNM Exhibit RWN-1 lists the case in which I have testified before the
7 Commission.

8

9 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

10 **A.** My testimony:

- 11 1. Describes Aion's relevant capabilities and experience
- 12 2. Describes Aion's role and involvement in PNM's 2020 replacement generation
13 all resource request for proposals ("RFP") process
- 14 3. Describes the goals of the RFP process
- 15 4. Provides an overview of the RFP process
- 16 5. Provides an overview of the new generation resource selection process
- 17 6. States my opinion as to the fairness and effectiveness of the RFP process

18

19 **II. AION'S RELEVANT EXPERIENCE AND ROLE**

20

21 **Q. WHAT WAS AION'S PRIMARY RESPONSIBILITY IN THE RFP**
22 **PROCESS?**

1 A. Aion was responsible for establishing the RFP process bid evaluation methodology
2 and, in conjunction with the bid evaluation team, determining a shortlist of bids after
3 completion of the Phase 2 bid evaluation process, to be considered by the PNM system
4 planning team for a more thorough assessment via detailed system portfolio modeling
5 to determine the portfolio of resources that most effectively achieved PNM's
6 objectives of being the most economical, feasible, and reliable plan. The shortlist
7 resulting from the RFP contained 53 bids to proceed into the Phase 3 evaluation
8 with some of the bids including alternative offerings for varying project capacities.
9 PNM Table RWN-1 provides a summary of the projects shortlisted as a result of
10 the Phase 2 evaluation.

PNM Table RWN-1. Shortlist Content Summary

Technology	Contracting Structure					Proposals	Generation Capacity	Storage Capacity
	PPA	ESA	BT	EPC	Other	Quantity	MW	MWh
Wind	1	-	-	-	-	1	180	-
Solar	6	-	-	-	-	6	786	-
Energy Storage	-	13	-	3	-	16	-	3,855
Solar + Energy Storage	21	-	-	-	-	21	3,140	5,402
Wind + Solar + Energy Storage	1	-	-	-	-	1	244	128
Gas - Simple Cycle	2	-	-	3	-	5	593	-
Gas - RICE	1	-	-	-	-	1	108	-
Coal	2	-	-	-	-	2	200	-
Total	34	13	0	6	0	53	5,251	9,385

11

1 **Q. HAS AION’S STAFF PERFORMED SIMILAR RFP SERVICES AND**
2 **RESPONSIBILITIES FOR OTHER UTILITIES IN THE PAST?**

3 **A.** Yes. Aion’s staff is and has been very active with RFP support and integrated resource
4 planning for regulated utilities. Representative recent experience includes the
5 following:

- 6 • NorthWestern Energy – Montana 2020 RFP for Capacity Resources
- 7 • NorthWestern Energy – South Dakota 2019 Capacity RFP
- 8 • NorthWestern Energy – Montana 2018 Capacity RFI
- 9 • NorthWestern Energy – Montana 2017 Capacity RFP
- 10 • Alliant Energy – Dane County Solar RFP
- 11 • Alliant Energy – Iowa Marshalltown Solar RFP
- 12 • Alliant Energy – Wisconsin 2018 Wind RFP
- 13 • Alliant Energy – Wisconsin Rock River Solar PPA RFP
- 14 • Alliant Energy – Wisconsin 2014 Non-Intermittent RFP
- 15 • Public Service Company of New Mexico – San Juan Generating Station
- 16 Replacement Resource RFP

17
18 Furthermore, Aion staff has prepared and submitted new generation resource
19 technology characteristics to be used for Integrated Resource Plan (“IRP”) system
20 modeling purposes for utility clients including, but not limited to, NVEnergy, Puget
21 Sound Energy, Portland General Electric, Consumers Energy, and Holland Board
22 of Public Works.

23

1 **Q. PLEASE DESCRIBE THE SCOPE OF SERVICES THAT AION**
2 **PERFORMED IN SUPPORT OF THE RFP FOR THE RESOURCES**
3 **PRESENTED IN THIS CASE.**

4 **A.** Aion served as an external industry resource to PNM providing independent
5 industry insights to inform the RFP process and RFP process decisions. Aion was
6 active from the initiation of RFP development through selection of the Phase 2
7 shortlist and also supported ongoing assessment and contract negotiation through
8 the Phase 3 evaluation and final selection. PNM Exhibit RWN-2 is a summary of
9 the Aion scope of services outlining specific tasks and deliverables through the
10 receipt of RFP responses from the RFP bidders, and PNM Exhibit RWN-3 outlines
11 the scope of services throughout the bid evaluation process. In summary, Aion was
12 responsible for:

- 13 • Support for RFP development including instructions to bidders, proposal
14 forms, and bid evaluation methodology to facilitate a fair and equivalent bid
15 evaluation process
- 16 • Support for a pre-bid conference
- 17 • Participation in the review and development of the commercial RFP
18 documentation
- 19 • Incorporation of the EPC Team's documentation and information into the
20 RFP
- 21 • Development and maintenance of an RFP process schedule
- 22 • Participation in the bid screening, bid clarifications, financial analysis, and
23 technical analysis of bids

- Preparation of proposal characteristics to be utilized for system portfolio modeling and analysis
- Independent evaluation and ranking of bids received from the RFP process with subsequent compilation of evaluation inputs from the bid evaluation team
- Participation in bid evaluation meetings, contract negotiations, and commercial agreement structuring
- Preparation of NMPRC and other regulatory required testimony
- Leading the “best-in-class” evaluation of proposed technology alternatives.

Q. WHO WAS RESPONSIBLE FOR OVERSIGHT OF AION’S PARTICIPATION IN THE RFP PROCESS?

A. As Vice President of Generation, PNM Witness Thomas Fallgren was ultimately responsible for the oversight and management of Aion’s activities. Aion also regularly reported to and coordinated activities with PNM’s Project Manager and Sourcing Manager.

III. RFP PROCESS AND OBJECTIVES

Q. PLEASE EXPLAIN THE STRUCTURE OF THE RFP ADMINISTRATION AND EPC SUPPORT TEAMS AND THE PARTIES INVOLVED.

A. The RFP was managed and coordinated in a manner to maintain separation between the team responsible for administration and overall management of the RFP process

1 (“RFP Administration Team”) and the team responsible for technical
2 communications and coordination with Respondents submitting EPC Proposals
3 (“EPC Support Team”). The EPC Support Team was responsible for providing all
4 existing site technical information, resolving EPC technical bid clarifications,
5 technical review of EPC bids, and support of the EPC bid evaluation process. The
6 EPC Support Team was not involved in and did not have access to the non-EPC
7 bids received in response to the RFP process. The RFP Administration Team was
8 not involved in the definition or establishment of EPC technical bid requirements
9 or associated existing site conditions. The responsibility for overall evaluation of
10 the bids submitted remained with the RFP Administration Team including bid
11 clarifications, Phase 1 through Phase 3 bid evaluation activities including modeling,
12 short-list selection, and contract negotiations for all RFP proposals. All such
13 activities utilized the technical and pricing inputs and feedback from the EPC
14 Support Team for the EPC bids submitted.

15
16 **Q. WHY WAS THE SEPARATION BETWEEN THE RFP ADMINISTRATION**
17 **TEAM AND THE EPC SUPPORT TEAM ESTABLISHED?**

18 **A.** Separation between the two teams was established to avoid the ability to potentially
19 influence the evaluation results in favor of self-build alternatives. The EPC Support
20 Team independently defined the sites and technical requirements for EPC proposals
21 and independently assessed the EPC proposals without having access to or
22 knowledge of the remaining third-party proposals. The RFP Administration Team
23 then relied upon the EPC Support Team’s evaluation results and incorporated these

1 results into the overall bid evaluation process and comparison to the third-party
2 proposals.

3

4 **Q. PLEASE PROVIDE MORE DETAIL REGARDING THE**
5 **RESPONSIBILITIES OF THE EPC SUPPORT TEAM IN THE RFP**
6 **PROCESS.**

7 **A.** The EPC Support Team was led by a representative from PNM's Generation
8 Engineering team with consulting support from HDR Engineering. The
9 responsibilities of this team included the following:

- 10 • Preparation of technical specifications for the RFP including
11 characterization of the existing sites available for EPC bids
- 12 • Development of technical EPC bid data sheets for the RFP
- 13 • Responses to technical bid RFIs for the EPC bidders
- 14 • Support of pre-bid meeting and web-hosting of EPC project site reviews
- 15 • Review of the EPC bid evaluation methodology and participation in the
16 EPC bid evaluation
- 17 • Technical support for developing inputs for initial portfolio/system
18 modeling for EPC projects
- 19 • Verification of EPC pricing and scope requirements per the RFP technical
20 specifications
- 21 • Technical support during contract negotiations.

22

1 **Q. PLEASE DESCRIBE THE OBJECTIVES OF THE RFP PROCESS AND**
2 **THE STRUCTURE USED.**

3 **A.** The primary objectives of the RFP process were to competitively bid and select
4 necessary resources to add nominally 150 MW of accredited capacity to PNM's
5 system including replacement of 114 MW of leased capacity served from the Palo
6 Verde Units 1 and 2 while implementing a balanced and impartial bid and bid
7 evaluation process. The final quantity of selected bids would be subject to the
8 results of system portfolio modeling and associated system reliability requirements
9 recognizing that nominally 150 MW of accredited capacity is expected to result in
10 an installed nameplate capacity greater than this targeted value as further explained
11 by PNM Witness Nicholas L. Phillips. The RFP was structured with no resource
12 type or project ownership structure specifically requested, preferred, or excluded.
13 Furthermore, specific EPC project types or structures were not specifically
14 identified or requested. The RFP process was structured as an "All-Resource" RFP
15 allowing bids utilizing any generation, storage, or demand-side technology, or
16 combination of technologies and allowing bids under various ownership structures
17 including power purchase agreements ("PPA"), energy storage agreements
18 ("ESA"), build-transfer ("BT") arrangements, asset purchase agreements ("APA"),
19 and EPC contracts. Under this all-source bid structure, objectives were to secure
20 resources that support PNM's transition to a zero-carbon energy future by 2040
21 while fulfilling PNM's obligation to serve its customers with reliable, low cost
22 energy, in an environmentally responsible manner. All generation was to be
23 deliverable to PNM load within WECC Path 48 with a targeted in-service date prior

1 to June 1, 2023. The RFP Instructions to Bidders document is included in PNM
2 Exhibit RWN-4 for reference.

3

4 **Q. PLEASE DESCRIBE HOW DEMAND SIDE RESOURCES WERE**
5 **INVITED WITHIN THE RFP PROCESS AND IDENTIFY THE QUANTITY**
6 **OF PROPOSALS FOR DEMAND SIDE RESOURCES THAT WERE**
7 **RECEIVED.**

8 **A.** Demand Side Management (“DSM”) resources were identified as a Type of
9 Eligible Proposal in Section 4.1 and further outlined in Section 5.6 of the RFP
10 Instructions to Bidders. PNM’s interest in evaluating both capacity (i.e. demand
11 response) and energy (i.e. energy efficiency) type DSM products was identified
12 along with submittal requirements for DSM proposals. While multiple demand-
13 side bidders submitted an intent to bid, PNM did not receive any DSM proposals in
14 response to the RFP.

15

16 **Q. PLEASE EXPLAIN AION ENERGY’S ROLE IN THIS PROCUREMENT**
17 **PROCESS.**

18 **A.** Aion participated in the RFP process as an independent resource to PNM for
19 administration and coordination of the RFP while providing industry experience,
20 market-based knowledge and insights to the PNM team. Aion provided an
21 independent shortlist bid evaluation analysis and results in support of PNM’s
22 overall evaluation and final selection of the competitive bids. Aion independently
23 evaluated the bids and prepared summaries of the shortlist bid evaluation results

1 and bid rankings for review by the RFP Administration Team. The initial
2 evaluation results were reviewed with PNM's subject matter experts in an effort to
3 ensure that applicable local and regional expertise and knowledge regarding project
4 risks and challenges were incorporated into the evaluation.

5
6 **Q. PLEASE IDENTIFY THE MEMBERS OF THE RFP BID EVALUATION**
7 **TEAM.**

8 **A.** The RFP bid evaluation team consisted of representatives of Aion as an RFP
9 administration consultant, Horizons Energy and Astrapé as electric system
10 modeling consultants, HDR as the engineer for the EPC Support Team and the
11 following groups from within PNM: Generation, Wholesale Power Marketing,
12 Environmental Services, Corporate Risk Management, Insurance, Tax, Resource
13 Planning, Treasury, Law Department, Accounting, NERC Compliance, Audit
14 Services, Regulatory and Case Management, FERC Compliance, Financial
15 Planning & Risk Management, Generation Services, Sourcing, Utility Margin, and
16 Transmission Planning.

17
18 **Q. PLEASE EXPLAIN YOUR COMPANY'S ROLE IN DESIGNING AND**
19 **ISSUING THE RFP FOR THE REPLACEMENT RESOURCES.**

20 **A.** Aion drafted a significant portion of the RFP documentation including the
21 instructions to bidders and proposal forms. For consistency throughout the RFP
22 documentation, Aion also reviewed the initial commercial term sheets and form
23 agreements that were prepared by PNM as well as the technical specifications and

1 EPC bid forms that were prepared by the EPC Support Team. All of the RFP
2 documents were prepared and provided to the PNM team for review and comment
3 prior to issuance. PNM issued the documentation via the Jaggaer sourcing
4 platform. Aion also prepared the bid evaluation methodology to be utilized for
5 evaluation of the proposals received. Our role was to establish a fair and unbiased
6 RFP process and documentation that was consistent with other utility industry RFP
7 processes.

8

9 **Q. DID THE RFP PROCESS REQUIRE A BID VALIDITY DATE THROUGH**
10 **WHICH TIME THE PROPOSALS WERE TO BE VALID AND HOW WAS**
11 **THIS DATE SELECTED.**

12 **A.** The RFP did require that proposals and pricing must remain valid and binding
13 through June 30, 2022, with an expected Commission approval within the first
14 quarter of 2022. The June 30 binding bid date was selected because it is
15 approximately 15-1/2 months after the intended replacement resource filing date
16 and should allow sufficient time for NMPRC review and approval with an extended
17 duration for stakeholder intervention. While most bidders complied with this
18 requirement, most also indicated that an NMPRC approval and full release after
19 March 31, 2022, would delay the proposed in-service date of the project. PNM
20 Witness Fallgren further outlines the required approval dates subsequently
21 negotiated for the selected proposals.

22

1 **Q. PLEASE EXPLAIN THE PROPOSALS RECEIVED IN RESPONSE TO**
2 **THE RFP PROCESS.**

3 **A.** PNM received 205 bids in response to the 2020 Replacement Generation RFP
4 including wind, solar, energy storage, coal-fired with carbon capture and
5 sequestration, and natural gas fueled technologies. The bids received are
6 summarized in PNM Table RWN-2.

PNM TABLE RWN-2. Summary of Proposals Received.

Technology	Contracting Structure					Proposals	Generation Capacity	Storage Capacity
	PPA	ESA	BT	EPC	Other	Quantity	MW	MWh
Wind	2	-	-	-	-	2	360	-
Solar	42	-	3	-	-	45	4,846	-
ESS	0	63	2	4	2	71	-	21,650
Wind + Solar	2	-	-	-	-	2	488	-
Wind + ESS	4	-	-	-	-	4	720	512
Solar + ESS	57	-	-	1	-	58	6,269	8,082
Wind + Solar + ESS	4	-	-	-	-	4	976	512
DSM	-	-	-	-	-	-	-	-
Gas – SC	2	-	-	4	1	7	752	-
Gas - NGCC	2	-	-	-	-	2	124	20
Gas – RICE	1	-	-	-	-	1	108	-
Coal	6	-	-	-	-	6	500	-
Other	1	-	1	-	1	3	46	40
Total	123	63	6	9	4	205	15,189	30,816

7

1 **IV. RFP BID EVALUATION AND SELECTION PROCESS**

2

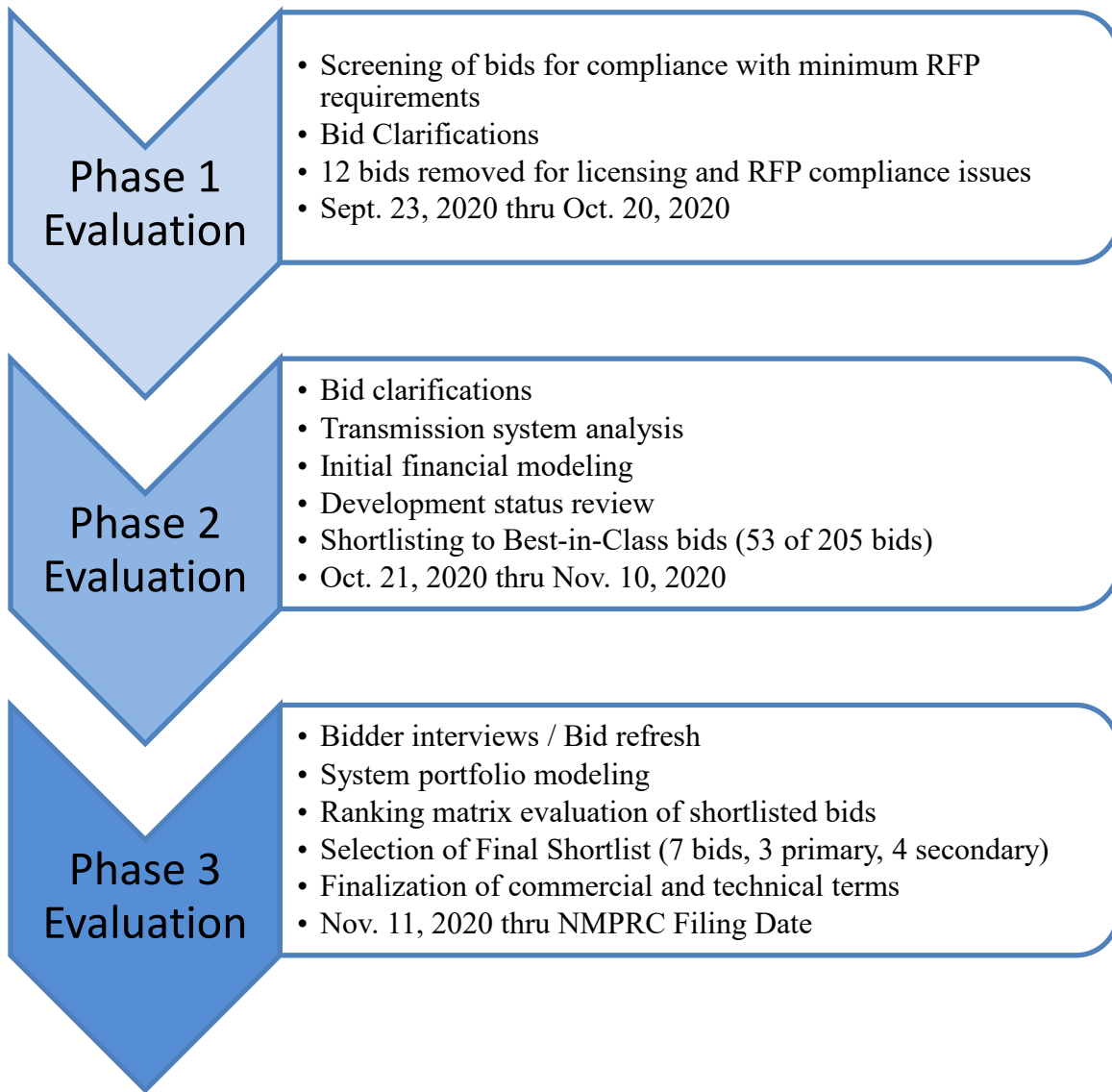
3 **Q. PLEASE EXPLAIN THE RFP BID EVALUATION AND SELECTION**
4 **PROCESS.**

5 **A.** PNM Exhibit RWN-5 outlines the bid evaluation methodology utilized to evaluate
6 the bids on a consistent and comparable basis. This document was prepared and
7 issued prior to receipt of the RFP responses. As outlined therein, the bid evaluation
8 was split into three phases:

- 9 • Phase 1 Evaluation: initial screening of bids for compliance with the
10 minimum requirements of the RFP.
- 11 • Phase 2 Evaluation: detailed evaluation of screened bids to shortlisting of
12 bids to the best-in-class within the technologies proposed; bids evaluated
13 individually for both quality and likelihood of achieving successful
14 commercial operation using both price and non-price criteria.
- 15 • Phase 3 Evaluation: further detailed evaluation of shortlisted bids including
16 analysis of combinations of bids to support a preferred alternative or
17 combination of alternatives.

18 A flow diagram of the bid evaluation process is presented in PNM Figure RWN-1.

1 **PNM Figure RWN-1. RFP Bid Evaluation Process Flow**



2

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Q. PLEASE EXPLAIN AND SUMMARIZE THE RESULTS OF THE PHASE 1 EVALUATION PROCESS IN MORE DETAIL.

A. The Phase 1 bid screening process is further summarized in PNM Exhibit RWN-6. This Phase 1 process was structured to screen RFP responses for fatal flaws and for factors that did not comply with the intent of the RFP. A single round of bid clarifications was issued during the Phase 1 evaluation. As a result of the Phase 1 evaluation, twelve bids were excluded from ongoing consideration for the following reasons:

- Bidder withdrew from the RFP process (Quantity 1)
- Non-responsive - declined to submit the bid fee or respond to the first round of bid clarifications (Quantity 1)
- Build-Transfer or EPC proposals for which the bidder did not have the required contractor's licensing upon submittal of the bid (Quantity 4)
- Non-compliant and incomplete PPA bids on a PNM site utilizing existing PNM infrastructure (Quantity 2)
- Non-compliant – proposals were either for services or equipment supply and did not represent a project that could be evaluated (Quantity 4)

All remaining bids were carried into the Phase 2 evaluation process for further clarification of the bid offerings, to make the evaluation as thorough and complete as possible and to more fully understand the potential value of each project to PNM and the stakeholders.

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1 **Q. PLEASE IDENTIFY WHAT METRICS OR EVALUATION FACTORS**
2 **WERE REVIEWED DURING THE BID EVALUATION PROCESS.**

3 **A.** As part of the Phase 1 and Phase 2 evaluations, the evaluation team initiated a side-
4 by-side comparative analysis of the bids, via the bid comparison template discussed
5 in PNM Exhibit RWN-5, that assessed several factors including, but not limited to,
6 the following bidder and bid characteristics:

- 7 • Performance
- 8 • Development Status
- 9 • Environmental and Permitting Status
- 10 • Land Acquisition Status
- 11 • Credit Provider
- 12 • Safety Metrics
- 13 • Construction Contractor License Applicability
- 14 • Utilization of Apprentices and Local, New Mexico Staff
- 15 • Bid Quality / Completeness
- 16 • Point of Delivery / Deliverability of Energy
- 17 • Transmission Losses/Fees
- 18 • Achievable In-Service Dates
- 19 • Compliance with Commercial Terms
- 20 • Total Delivered Cost

21

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Q. PLEASE DESCRIBE THE OBJECTIVES AND METHODOLOGY USED IN THE PHASE 2 EVALUATION PROCESS.

A. The Phase 2 bid evaluation process was structured to establish a shortlist of bids based upon the previously noted evaluation factors. The Phase 2 evaluation was focused on selecting the best-in-class bids for each generation technology to allow more in-depth analysis and system modeling of these projects during the Phase 3 evaluation process. The Phase 2 process involved, but was not limited to, the following activities:

- One round of bid clarifications
- Assessment of electrical interconnection and transmission system network upgrade costs
- Assessment of operations and maintenance costs
- Assessment of technical compliance with the technical specifications provided by the EPC support Team
- Incorporation of bid evaluation input from the EPC Support Team
- Determination of delivered fuel costs
- Fuel flexibility
- Development of Owner's costs
- Computation of revenue requirements for capital cost recovery
- Accounting for transmission wheeling fees and losses
- Development of total delivered cost of electricity
- Evaluation of redlines to terms and conditions

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- 1 • Evaluation of bidder experience

2

3 Additional detail regarding these bid evaluation activities is discussed below and

4 can be found in the Phase 2 Bid Evaluation Summary Report included in PNM

5 Exhibit RWN-7.

6

7 **Q. WHAT IS MEANT BY A "BEST-IN-CLASS" BID?**

8 **A.** As previously noted, the purpose of the Phase 2 evaluation was to develop a

9 shortlist of best-in-class bids for each generation technology. For this purpose,

10 “best-in-class” is defined as bids providing both the lowest total evaluated delivered

11 cost of energy and presenting the lowest risk to the timely and successful execution

12 of the project. Project characteristics and risks associated with technology,

13 permitting, land acquisition, construction and ongoing staffing, as well as

14 transmission interconnection and network upgrades were considered for this best-

15 in-class characterization. As previously indicated, the shortlist included 53 best-

16 in-class bids representing solar, wind, energy storage, combustion turbine,

17 reciprocating engines, combined solar/battery, combined wind/solar/battery, and

18 coal combustion with carbon capture and sequestration technologies. These bids

19 were then provided to Horizons Energy and PNM’s resource planning team for

20 consideration in the Phase 3 detailed system modeling.

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1 **Q. PLEASE EXPLAIN THE BID CLARIFICATION PROCESS**
2 **IMPLEMENTED DURING THE EVALUATION OF BIDS.**

3 **A.** To get a thorough understanding of the characteristics of the bids offered and to
4 promote a comparable bid evaluation process, the bid evaluation team implemented
5 a thorough bid clarification process during all phases of the bid evaluation process.
6 Bidder-specific proposal clarifications were requested from individual bidders
7 focusing on numerous topics, including, but not limited to electrical interconnection
8 and network upgrades, application of federal tax credits and tariffs, technology
9 characteristics, pricing structure details, project schedule challenges, performance
10 expectations, and status of environmental permitting and land acquisition.

11

12 **Q. PLEASE DESCRIBE THE METHODOLOGY FOR ASSESSMENT OF**
13 **ELECTRICAL INTERCONNECTION AND TRANSMISSION SYSTEM**
14 **MODIFICATIONS FOR THE BIDS OFFERED.**

15 **A.** Bidders were asked to include costs in their proposal for electrical transmission
16 interconnection, system network upgrades required to support the export of
17 generated electricity from each site, transmission system losses, and any required
18 wheeling fees. This information was reviewed for completeness. However, many
19 bidders had not yet been studied in the generator interconnection process on PNM's
20 system and detailed estimates were generally not available for analysis from most
21 bidders. Some bidders had a final interconnection agreement or had transmission
22 system studies with estimated costs for necessary upgrades. Similarly, some of

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1 those interconnecting to PNM's transmission system via a third-party transmission
2 provider had accounted for the appropriate wheeling fees while others had not.

3
4 PNM solicited follow-up information and supporting data through the Jaggaer
5 question and answer process to gain additional information from the bidders to
6 validate supplied transmission cost information.

7
8 To provide an assessment of electrical interconnection and infrastructure upgrade
9 viability and costs, the PNM Transmission Planning team reviewed the
10 characteristics of each bid and provided information regarding the scope, timeline,
11 and estimated cost for necessary electrical interconnection and transmission system
12 upgrades to support the export of electricity from each project. Any costs not
13 accounted for in the bidders' bids were treated as a PNM capital cost and were
14 incorporated into the estimates of the total delivered costs considered in the bid
15 evaluation. The status of each bidder's electrical interconnection application and
16 expected schedule for implementation of necessary upgrades was considered in the
17 viability of each project. PNM Witness Thomas P. Duane further addresses the
18 evaluations performed by PNM's Transmission Planning Department with respect
19 to the responses to the RFP.

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1 **Q. PLEASE DESCRIBE THE METHODOLOGY FOR ESTABLISHING**
2 **OPERATIONS AND MAINTENANCE COST ESTIMATES FOR THE**
3 **BIDS.**

4 **A.** Operations and maintenance costs for each of the PPA and ESA bids were included
5 in the proposed PPA pricing. Operations and maintenance costs for EPC bids
6 carried into the Phase 2 evaluation were estimated by the EPC Support Team. This
7 included proposals for aero-derivative combustion turbines and short-term energy
8 storage EPC offers.

9

10 **Q. PLEASE EXPLAIN HOW THE DELIVERED COST OF FUEL FOR THE**
11 **NATURAL GAS FUELED BIDS WAS DETERMINED.**

12 **A.** Commodity costs for natural gas were as provided by PNM's resource planning
13 team to be consistent with the IRP development and the system modeling activities.
14 Costs for gas transmission were provided by PNM's Wholesale Power Marketing
15 team. Total natural gas costs included the commodity cost at the source with adders
16 for fuel surcharges, transport charges, and taxes as well as costs for any required
17 gas lateral or additional infrastructure costs to obtain gas pricing specific to
18 individual project sites.

19

20 **Q. PLEASE DESCRIBE HOW THE OWNER'S COSTS ASSOCIATED WITH**
21 **EACH OF THE BIDS WERE ESTABLISHED.**

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1 **A.** Owner's costs for development, management, and oversight of the execution of the
2 projects were estimated by the RFP Administration Team. These costs for EPC
3 projects included costs for permitting, project management and operations
4 personnel, information technology, land acquisition, Owner's engineering, startup
5 fuel and consumables, permanent plant equipment and furnishings, an initial stock
6 of spare parts, a credit for energy sold during the commissioning tests, legal and
7 regulatory costs, general and administrative costs, an allowance for funds used
8 during construction, and contingency. The scope and magnitude of these costs
9 allocated to PNM for PPA and ESA projects were significantly reduced as the
10 bidder would be responsible for many of these activities. Owner's costs for PPA
11 and ESA projects were estimated at approximately one percent of the estimated
12 project cost and EPC projects were estimated at approximately 14 to 20 percent of
13 the EPC project cost.

14

15 **Q. PLEASE EXPLAIN HOW COSTS FOR RECOVERY OF PNM'S CAPITAL**
16 **INVESTMENTS WERE DETERMINED IN THE BID EVALUATION**
17 **PROCESS.**

18 **A.** Capital cost recovery for EPC offerings as well as scope (e.g. transmission network
19 upgrades) not included in the PPA and ESA offers were determined utilizing
20 PNM's financial modeling parameters from their revenue requirements models.
21 Aion developed an annual capital recovery fixed charge rate for all capital costs,
22 including New Mexico Gross Receipts Taxes allocated to PNM. As no EPC or BT

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1 renewable projects were carried into the Phase 2 evaluation, consideration of
2 Federal Production Tax Credits (“PTC”) and Investment Tax Credits (“ITC”) was
3 not required with respect to PNM’s capital investments.
4

5 **Q. PLEASE EXPLAIN HOW ANY RENEWABLE GENERATION TAX**
6 **CREDITS AND TARIFFS ARE CONSIDERED IN THE EVALUATION**
7 **PROCESS.**

8 **A.** The PTC for wind energy and the ITC for solar projects allow renewable energy
9 providers to reduce the cost of energy on their bids due to government tax subsidies.
10 In contrast, import and other tariffs have been placed on certain materials such as
11 solar panels and steel that can drive increased costs for the projects. Individual
12 bidders were responsible for incorporating or considering how renewable tax
13 credits as well as applicable tariffs would impact their proposals. This included
14 defining the timeline for proposed projects that would allow for the tax benefits to
15 be captured and incorporation of costs, if applicable, to address solar, steel, or other
16 tariffs applicable to their project.
17

18 **Q. HOW WERE COSTS FOR ELECTRICAL TRANSMISSION FEES AND**
19 **TRANSMISSION LINE LOSSES TO PNM’S LOAD CENTER**
20 **CONSIDERED IN THE EVALUATION?**

21 **A.** If not included in the bidder’s proposed pricing, electrical transmission wheeling
22 fees were determined for projects outside of PNM’s territory in accordance with

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1 Open Access Transmission Tariff (“OATT”) guidelines as defined by PNM’s
2 transmission planning team. For projects beyond counties surrounding
3 Albuquerque, including Bernalillo, Valencia, McKinley, Sandoval, Santa Fe, and
4 Cibola counties, an allocation for electrical losses from the facility to PNM’s load
5 center in Albuquerque was considered.

6

7 **Q. PLEASE IDENTIFY ANY TRANSMISSION SYSTEM**
8 **CHARACTERISTICS THAT INFLUENCED THE SELECTION OF THE**
9 **PHASE 2 SHORTLIST OF BIDS.**

10 **A.** Through the evaluation of the system interconnection and transmission network
11 upgrade costs by the PNM Transmission Planning Team, it was identified that firm
12 transmission capacity made available by the Palo Verde retirement from the Four
13 Corners area to PNM’s load centers was nominally 114 MW with generation above
14 this level potentially requiring increased levels of curtailment. To obtain firm
15 transmission capability above this value, network upgrades increasing transfer
16 capability to PNM load and the associated implementation schedule are included in
17 the evaluation.

18

19 The shortlist selection considered this situation by 1) performing a delivered cost
20 sensitivity on the impacted bids with the added cost of the required network
21 upgrades, 2) retaining additional bids in the shortlist if the impacts of the network
22 upgrades would exclude otherwise low cost alternatives from the Four Corners

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1 area, and 3) retaining the bids over 114 MW of capacity for ongoing discussion and
2 negotiation during the Phase 3 evaluation should the system modeling identify
3 these as low cost alternatives.
4

5 **Q. PLEASE EXPLAIN HOW COMPARABLE TOTAL DELIVERED COST**
6 **OF ELECTRICITY WAS DETERMINED FOR THE COMPARISON OF**
7 **TECHNOLOGY BIDS.**

8 **A.** Using all of the above discussed cost factors, Aion estimated both a total delivered
9 cost of energy and a total delivered cost of capacity from each project such that an
10 equivalent comparison of bids could be presented. The total delivered cost
11 information was presented as both a levelized cost of energy per delivered
12 megawatt-hour and a levelized cost of capacity per deliver kW-year over the term
13 of the proposed contract or project life. Determination of the levelized costs
14 considered cost escalation as quoted by the PPA or ESA bidders and for EPC bids
15 was considered based upon PNM's planning assumptions. This approach provided
16 a fair comparison of like technologies to assist in the selection of best-in-class bids
17 for each technology that were subsequently more fully evaluated in the Phase 3
18 system modeling activities.
19

20 **Q. PLEASE EXPLAIN HOW THE ACCREDITED CAPACITY UTILIZED TO**
21 **ESTABLISH THE LEVELIZED COST OF CAPACITY WAS DEFINED.**

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1 **A.** Aion’s development of the levelized cost of capacity was based upon determination
2 of accredited capacity consistent with the effective load carrying capacity
3 (“ELCC”) used in PNM’s resource planning for the next, new increment of
4 generation of the associated technology type. Consideration of increasing
5 concentrations of resources and the potential, resultant reduction of ELCC values
6 was addressed in the Phase 3 system portfolio modeling activities. PNM Witness
7 Phillips provides further discussion regarding the determination of ELCC values
8 and Phase 3 modeling activities.

9

10 **Q. PLEASE EXPLAIN HOW BOTH THE LEVELIZED COST OF ENERGY**
11 **AND LEVELIZED COST OF CAPACITY WERE CONSIDERED IN THE**
12 **PHASE 2 SHORTLIST PROCESS.**

13 **A.** As final selection of resources would be dependent upon the Phase 3 evaluation
14 process utilizing thorough system modeling and portfolios of shortlisted resources,
15 the Phase 2 shortlist development considered top bids when ranked both on
16 levelized cost of energy and levelized cost of capacity. This approach expanded
17 the potential list of resources to be evaluated in Phase 3, but also ensured that
18 resources with the potential to provide the most value to PNM’s system and to result
19 in the lowest cost combination of resources would be evaluated and considered.
20 This approach expanded the list of potential energy storage solutions by including
21 a range of energy storage durations. It also expanded the shortlist of hybrid

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1 renewable with energy storage proposals to include varying proportions of energy
2 storage to renewable capacity as well as varying durations of energy storage.

3

4 **Q. PLEASE DESCRIBE HOW BIDDER EXCEPTIONS TO THE PROPOSED**
5 **PROJECT TERMS AND CONDITIONS WERE CONSIDERED IN THE**
6 **EVALUATION PROCESS.**

7 **A.** A side-by-side comparison of the exceptions and comments offered on the proposed
8 terms and conditions was prepared to identify major discrepancies or cost factors
9 between bids. Many of these exceptions revolved around renewable project
10 curtailment, liquidated damages, developer security provisions, and performance
11 guarantees. This information was considered in the qualitative ranking and
12 selection of shortlisted bids during the Phase 3 evaluation.

13

14 **Q. PLEASE DESCRIBE HOW BIDDER EXPERIENCE WITH THE**
15 **TECHNOLOGIES PROPOSED WAS CONSIDERED IN THE BID**
16 **EVALUATION PROCESS.**

17 **A.** For renewable and energy storage bids, a side-by-side comparison of each bidder's
18 experience with the type of project(s) proposed was prepared and considered in the
19 bid selection process. This information was considered in the qualitative ranking
20 and selection of shortlisted bids during the Phase 3 evaluation.

21

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1 **Q. PLEASE DESCRIBE HOW THE REQUIREMENT TO UTILIZE**
2 **APPRENTICE LABOR DURING CONSTRUCTION OF THE PROJECT**
3 **AND IN COMPLIANCE WITH NMSA 1978, SECTION 62-13-16 WAS**
4 **CONSIDERED IN THE BID EVALUATION PROCESS.**

5 **A.** Compliance with the requirement to utilize ten percent (10%) apprentice labor
6 during construction of the facility (to the extent such labor is available) was
7 evaluated as a qualitative bid evaluation factor. Through the bidder clarification
8 questions, the RFP Administration Team confirmed each bidder's intent to comply
9 with this requirement. Some bidders had a defined plan, others were going to rely
10 on the ability of their constructor to obtain this labor, and one provided a pricing
11 adjustment to comply with this requirement, in conjunction with utilizing New
12 Mexico labor. All bidders did, ultimately, agree to comply with this requirement.

13

14 **Q. PLEASE DESCRIBE THE SHORTLIST OF BIDS THAT RESULTED**
15 **FROM THE PHASE 2 EVALUATION PROCESS.**

16 **A.** The Phase 2 shortlist identified in PNM Table RWN-1 included all technologies
17 offered in response to the RFP that passed the Phase 1 screening analysis and
18 included options that provided both the lowest cost of delivered energy as well as
19 the lowest cost of delivered capacity. The shortlist maintained the most favorable
20 bids in each generation technology category while also maintaining offers in each
21 technology category with a total nameplate capacity (when available) above the
22 targeted accredited capacity. This approach was designed to facilitate a more

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1 detailed analysis in Phase 3 considering portfolios of resources through the system
2 modeling activities.

3
4 The shortlist was structured to maintain maximum resource flexibility with respect
5 to implementation schedules, operational flexibility, applicability of ITC and PTCs,
6 and to incorporate and allow for resources that facilitated future progress towards
7 satisfying PNM's objective for a zero-carbon energy future by 2040. This included
8 consideration of natural gas fueled proposals that could offer options for future fuel
9 conversions to fuels such as hydrogen and coal-mine methane.

10
11 The intent of considering the above in the selection of the shortlisted bidders was
12 to provide sufficient information to allow Horizons Energy and PNM's resource
13 planning team to perform and evaluate a wide range of generation portfolios in an
14 effort to develop the replacement generation resources for PNM going forward
15 while maintaining system reliability objectives.

16
17 **Q. PLEASE EXPLAIN THE PHASE 3 BID EVALUATION PROCESS.**

18 **A.** The Phase 3 bid evaluation process was focused upon evaluating alternative
19 generation portfolios utilizing the selected shortlist bids and project characteristics
20 to obtain the replacement resources that satisfied the PNM system capacity, energy,
21 and reliability objectives. On this basis, the shortlisted RFP bidders were invited
22 to meet with the RFP Administration Team and, in the case of an EPC bid, also

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1 with the EPC Support Team to further discuss the details of their bids and to allow
2 the PNM team to gather necessary data for further evaluation. At this time the
3 bidders were requested to provide additional clarifications as well as were provided
4 the opportunity to refresh their proposal for any new developments or pricing
5 advancements.

6
7 To support the Phase 3 evaluation, Aion prepared a summary of technology
8 characteristics and pricing for each of the shortlisted bids for use in the Horizons
9 Energy and PNM system modeling efforts. Information gathered from the bid
10 refresh request was summarized and provided to the PNM resource planning staff
11 as well as Horizons Energy. Further details of this modeling process will be
12 summarized by PNM Witness Phillips. A summary discussion of the Phase 3
13 evaluation is provided in PNM Exhibit RWN-8.

14
15 **Q. HOW WAS THE FINAL SHORTLIST DERIVED?**

16 **A.** The final shortlist resulting from the RFP consisting of seven bids, was derived as
17 a result of the detailed system modeling and system optimization performed by
18 Horizons Energy and PNM's resource planning team in conjunction with a
19 weighted bid ranking matrix developed by the RFP Administration Team. The bid
20 ranking matrix was utilized to rank both qualitative and quantitative measures of
21 the bids included in the Phase 2 shortlist on a consistent basis. In the case of minor
22 discrepancies in the portfolio modeling results and the bid ranking matrix, the

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1 results of the portfolio modeling took precedence in an effort to deliver low-cost,
2 reliable energy to PNM's customers. The final shortlist included the bids
3 summarized in PNM Table RWN-3 and as further detailed in PNM Exhibit RWN-
4 8.

PNM Table RWN-3. Final Shortlist Content Summary

Proposal	County	Project Structure	Capacity
Primary Bids			
Bid 68-2.2	Bernalillo	Solar + Storage PPA	300 MW Solar / 150 MW (600 MWH) BESS
Bid 79-1.1	Bernalillo	Energy Storage Agreement	100 MW (200 MWH) BESS
Bid 7-1.1	Rio Arriba	Solar + Storage PPA	150 MW Solar / 40 MW (160 MWH) BESS
Alternative Bids			
Bid 12-1.1a	Clayton	Wind PPA	180 MW Wind
Bid 56-1.2a	Santa Fe	Solar + Storage PPA	96 MW Solar / 48 MW (96 MWH) BESS
Bid 69-1.2	Rio Arriba	Solar + Storage PPA	150 MW Solar / 40 MW (80 MWH) BESS
Bid 38-4.1	Sandoval	Solar + Storage PPA	140 MW Solar / 70 MW (280 MWH) BESS

5

6 **Q. WHAT FACTORS LED TO THE SELECTION OF THE PRIMARY BIDS?**

7 **A.** Selection of the primary bids was based upon a number of factors including
8 selection of cost effective resources via the portfolio modeling, prudent selection
9 of resources that did not prematurely commit PNM to resources offering new
10 capacity only available multiple years into the future, and assessment of risks for
11 some resources associated with (i) the timing and execution of necessary right-of-
12 ways/easements for long-distance transmission paths, (ii) the timing and execution
13 of permitting, approvals, required agreements and construction of necessary

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1 infrastructure to deliver the quoted product, (iii) transmission congestion and load
2 flow, (iv) the ability to reliably provide generation and fully comply with the quoted
3 emissions concentrations upon the in-service date, and (v) the ability to comply
4 with the long-term objectives of the Energy Transition Act regarding carbon-free
5 generation.

6
7
8 **Q. PLEASE EXPLAIN YOUR COMPANY'S PARTICIPATION IN THE**
9 **SELECTION PROCESS AND THE NEGOTIATIONS WITH SHORT-**
10 **LISTED BIDDERS.**

11 **A.** During the bid selection process, Aion summarized and evaluated bid information
12 in a consistent and controlled manner to facilitate PNM modeling and decision
13 making. Aion served as an independent resource to review proposals, provide
14 insights, and to provide support for the later phases of the evaluation and
15 negotiation. Aion's primary responsibility was to deliver the Phase 2 shortlist of
16 bids with Horizons Energy, Astrapé and PNM subsequently performing generation
17 system portfolio modeling to evaluate the overall system reliability and costs for
18 varying generation portfolios.

19
20 Our role was structured as a participant and resource for PNM in the contract
21 negotiation process associated with the evaluated cost of electric generation,
22 commercial terms, and other technical and commercial aspects of the short-listed

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1 bidders' bids. We cooperated with the EPC Support Team to incorporate and
2 address the more detailed technical aspects of the proposals and negotiations.
3 Aion's participation in these areas was conducted independently with subsequent
4 collaboration between Aion, the RFP Administration Team, the EPC Support Team
5 and PNM's subject matter experts to develop a conformed bid evaluation
6 supporting PNM's final bid selection and contract negotiation activities.
7

8 **Q. DID YOU HAVE A ROLE IN THE FINAL SELECTION OF THE**
9 **SUPPLIER OF THE GENERATION RESOURCES?**

10 **A.** In conjunction with the RFP Administration Team, EPC Support Team, Horizons
11 Energy, Astrapé and the remainder of the bid evaluation team, Aion was an active
12 participant in the final selection of the PPA and ESA provider candidates by serving
13 in evaluation support and independent advisor roles. Our activities supported the
14 definition of three primary and four alternative short-listed, market competitive
15 bids such that PNM could subsequently select and pursue final negotiations. Aion's
16 role in the final selection was also to assist PNM in the conformance of the
17 agreement(s) with the final selected bidder(s).
18

V. CONCLUSIONS

21 **Q. DO YOU BELIEVE THAT THE TERMS AND CONDITIONS SET FORTH**
22 **IN THE RFP WERE REASONABLE?**

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1 **A.** Yes. From Aion's experience, the terms and conditions were typical of such RFPs
2 and consistent with prior PNM agreements previously approved by the
3 Commission. Upon receipt of the bids and throughout the bid clarification process,
4 these terms and conditions were assessed by Aion relative to typical market
5 considerations and negotiated amongst the bidders which resulted in commercial
6 provisions that we believe are consistent with the range of current market
7 expectations and offerings.

8

9 **Q. DO YOU BELIEVE THE PROCUREMENT PROCESS AND**
10 **PROCEDURES SPECIFIED WERE REASONABLE AND**
11 **COMPETITIVELY FAIR?**

12 **A.** Yes. The overall RFP and procurement approach was inclusive, thorough, and
13 consistent with similar bidding of all-source generation or storage resources. The
14 RFP process resulted in a strong list of viable and competitive bids that offered
15 options and competitive opportunities for well-defined and low cost generating
16 resource alternatives supporting PNM's transition to a zero-carbon future.

17

18 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

19 **A.** Yes, it does.

20

GCG#527878

Resume of Roger W. Nagel

PNM Exhibit RWN-1

Is contained in the following 1 page.

Roger W. Nagel

Principal / Consultant



Roger brings over 28 years of international energy industry design and consulting experience with a wealth of insights applicable to development, decision making and structuring of client programs. Roger has served in roles as a design engineer, consultant, owner's engineer, EPC contractor, original equipment manufacturer, strategic consulting lead, and power engineering practice lead. His areas of expertise involve feasibility studies, technology assessments, system resiliency, resource planning, system optimization, procurements, financial analysis, technical specification, bid evaluations, and contract negotiations.

Relevant Experience

Roger's career has been focused on Owner's Engineering, resource planning, and front-end development services to the power industry. Responsibilities include:

- Consulting services for integrated resource planning, request for proposal (RFP) processes, and projects involving renewable energy, energy storage, demand-side management, and thermal energy resources.
- Development of numerous technical reports focusing on energy options and siting evaluations, including technology assessments and design activities for projects in the United States, South America, China, Europe and the Middle East.
- Front-end development, market and contracting strategy analysis, project budget cost and schedule development, design review, major equipment selection, EPC bid review, contractor selection and contract negotiations, as well as technology option analyses and regulatory support.
- Project Consultant for due diligence, benchmarking and evaluation of existing power facilities, assessing efficiency, cost effectiveness, and ownership and management alternatives including financial as well as sustainable return on investment analysis.
- Extensive experience with technology assessments including thermal cycle development and optimization, lifecycle financial evaluations and technology feasibility.

Roger has supported strategic consulting to Alliant Energy, NorthWestern Energy, Colorado Springs Utilities, New York City Economic Development Corporation, and LADWP, amongst others, and has been responsible for managing and organizing execution strategies that meet project and corporate objectives. Projects include technology assessments, contracting for third party developments, proxy analyses and development support for strategic contracting and execution plans for new renewable, energy storage, cogeneration, resiliency, and fossil-fueled projects at greenfield and brownfield sites for utility, industrial, and institutional clients.

EDUCATION

Purdue University
BSME – 1992

INDUSTRY TENURE

28 Years

LICENSURE

Professional Engineer, Michigan,
License No. 6201043339

OFFICE LOCATION

Orlando, FL

TESTIMONY EXPERIENCE

New Mexico Public Regulation Commission

Case No. 19-00195-UT – IN THE MATTER OF PUBLIC SERVICE COMPANY OF NEW MEXICO'S CONSOLIDATED APPLICATION FOR APPROVALS FOR THE ABANDONMENT, FINANCING, AND RESOURCE REPLACEMENT FOR SAN JUAN GENERATING STATION PURSUANT TO THE ENERGY TRANSITION ACT

Aion Energy Scope of Services-RFP Development

PNM Exhibit RWN-2

Is contained in the following 2 pages.



Summary of Aion Energy RFP Development/Implementation Scope of Services

RFP Development Phase

During the RFP Development Phase, Aion will work and coordinate closely with the PNM Team and the assigned EPC Team to coordinate the development and compilation of applicable RFP components. Aion will perform the following services leading to the issuance of the RFP for bid.

- 1) Drafting of the RFP Notification (Press Release) to the market
- 2) Drafting, development, and coordination of the RFP documentation (excluding drafting and development of the technical specifications and technical bid data sheets by EPC Team and drafting of the form terms and conditions by PNM)
- 3) Support for coordination of the RFP process with the NMPRC and development of RFP process documentation in accordance with NMPRC guidance, as required
- 4) Development of a proposed Independent Monitor scope of activities and integration plan.
- 5) Compilation of documents for the Independent Monitor, as required
- 6) Review of PNM developed Form Agreements and Terms & Conditions for consistency with the RFP documentation (assuming these are the same as issued for 2017 RFP)
- 7) Incorporation of applicable EPC Team developed documentation
- 8) Development of communications protocols for communications amongst the RFP team participants
- 9) Assistance in compilation of RFP documents in a format most suitable for PNM's Procurement Team and for issuance to the Bidders (issuance and administration by PNM's Procurement Team)
- 10) Development and management of the RFP implementation schedule

It is assumed that the RFP will be issued within the month of May 2020. During this phase of the project, Aion has assumed that there will be no travel or face-to-face meetings, but is willing to quote and support any on-site meetings, as required.

RFP Implementation Phase

From the time the RFP is issued for bid up until proposals are received, Aion will perform the following activities.

- 1) Participation in a pre-bid meeting



- 2) Coordination of bidder Requests for Information (RFIs) and associated responses including development of responses to commercial RFIs and review and incorporation of responses to technical RFIs based on coordination with the EPC Team and/or PNM subject matter experts, as applicable (questions to be received and responses issued by PNM's Procurement Team)
- 3) Participation in EPC project site visits if requested by the EPC Team
- 4) Development of a lifecycle financial model to support directional conclusions within the bid evaluation (used for initial shortlisting and as a supplement to portfolio modeling performed by others)
- 5) Development of inputs for initial validation of portfolio/system modeling and review of associated modeling results
- 6) Development of a bid evaluation methodology accounting for EPC and Market Bid evaluations as well as the ETA evaluation criteria
- 7) Development of a scoring matrix template and scoring basis
- 8) Support of coordination of the RFP process with the NMPRC and development of RFP process documentation in accordance with NMPRC guidance
- 9) Compilation of documents to the Independent Monitor, as required
- 10) Management and compilation of all communications and clarifications with bidders including coordination of inputs from the EPC Team, PNM, and others
- 11) Development and compilation of RFP Addenda documentation, including the EPC Team inputs

Aion has included four in-person meetings during this phase of the project in PNM's offices, at the prospective sites, or other location as deemed appropriate. It is assumed that this phase of the project will be of a duration of 90 calendar days.

Aion Project Management and Administration

Aion will provide general project management, quality control, and administrative support for the Aion activities outlined herein. Project management activities include proper documentation, accounting, and archiving of pertinent communications.

Aion Energy Scope of Services-RFP Bid Evaluation Support

PNM Exhibit RWN-3

Is contained in the following 3 pages.



Summary of Aion Energy RFP Bid Evaluation Scope of Services

Bid Evaluation Phase

Starting with the receipt of bids, Aion will evaluate the bids in a phased manner consistent with that outlined in the draft Bid Evaluation Methodology document submitted to PNM by Aion in September 2020. Upon receipt of bids, Aion will support the following activities:

- 1) Phase 1 Bid Evaluation including the following:
 - a. Preparation of an initial bid screening to evaluate each proposal for completeness and consistency with the requirements specified in the RFP.
 - b. Developing a comparative assessment of bid characteristics, costs, performance, guarantees, project feasibility, and an initial economic analysis to develop a first year delivered cost for each proposal.
 - c. Preparation of clarification questions for each bidder with incorporation of the responses into a bid summary template.
 - d. Participation in conference calls and web conferences with PNM staff to review the initial findings and to discuss bid shortlisting and the path forward for the more detailed evaluation.
 - e. For those proposals screened out of the process, Aion will document the associated reasons for bidder exclusion.
 - f. In support of the bid screening and evaluation, Aion will summarize data provided by the bidders regarding transmission interconnection and network upgrade costs as well as environmental and permitting considerations associated with each proposal for review and input from PNM's subject matter experts (SMEs).
 - g. Preparation and submittal of the bid summary template and a Phase 1 Bid Evaluation report to PNM as documentation of the findings of the Phase 1 effort.
- 2) Upon conclusion of the Phase 1 bid screening assessment and definition of potentially viable proposals, Aion, in conjunction with the RFP Administration Team, will initiate a detailed bid evaluation process. The intent of the Phase 2 Bid evaluation process will be to determine a shortlist of candidate projects for detailed evaluation and contract negotiation. The shortlist development will be primarily based on the evaluated cost of delivered energy and the overall viability of the projects to achieve the quoted project in-service dates. Aion's Phase 2 Bid Evaluation activities will include the following:
 - a. Continued development of a more detailed comparison of the screened proposals



that will focus on the compliance of each bid to the RFP requirements and technical specifications, as applicable, and will summarize project pricing, performance, exceptions to commercial terms, development status, interconnection viability, and overall project structure.

- b. Preparation of estimates of Owner's Costs, natural gas lateral/delivered cost estimates, operations and maintenance costs, and other cost factors to support the development of normalized, conformed evaluated costs for each of the various proposal types and structures.
- c. Preparation of a levelized cost of delivered energy for each proposal for comparison.
- d. Participation in internal coordination and evaluation discussions with PNM staff and the evaluation team.
- e. Preparation of additional bidder clarifications incorporating questions from PNM's SMEs as well as compilation of responses from these clarifications.
- f. Incorporation of evaluation input from PNM's Transmission Planning, Resource Planning, and Environmental teams in an effort to develop a shortlist of candidate projects.
- g. Preparation of a Phase 2 Bid Evaluation Report to document the selected shortlist of projects and the reasons for excluding those proposals not selected for further evaluation.

3) Phase 3 Bid Evaluation including the following:

The Phase 3 Bid Evaluation will be focused on selection of the final project candidates, contract negotiation, and preparation of filing documents. Aion's services will include the following:

- a. Preparation and submittal of inputs for the shortlisted projects for system modeling and financial modeling by PNM's staff and consultants.
- b. Participation in shortlisted bidder proposal review and clarification web-conferences.
- c. Final bid clarifications with the shortlisted bidders.
- d. Review and commenting on system and financial modeling results prepared by PNM's staff and consultants.
- e. Participation in internal coordination and evaluation discussions with PNM staff and the evaluation team.



- f. Finalization of the bid evaluation template and of the bid ranking matrix, accounting for the results of the system modeling.
 - g. Preparation of a Phase 3 Bid Evaluation Report to document the selected shortlist of projects and the reasons for final selection.
- 4) Upon selection of the RFP finalists, Aion will support the following activities:
 - a. Supporting PNM's negotiation of contracts with the selected bidders. It is noted that if an EPC or Build-Transfer proposal is selected, it is expected that the EPC Team will negotiate and conform the project technical specifications.
 - b. Review of the Contract Summary for justification of each selected project.
 - c. Preparation of an RFP Bid Evaluation Overview document summarizing the phases of the RFP evaluation process and the associated outcomes of each.
 - d. Preparation of written testimony.

Aion Project Management and Administration

Aion will provide general project management, quality control, and administrative support for the Aion activities outlined herein. Project management activities include proper documentation, accounting, and archiving of pertinent communications.

PNM 2020 Replacement Generation RFP

PNM Exhibit RWN-4

Is contained in the following 31 pages.

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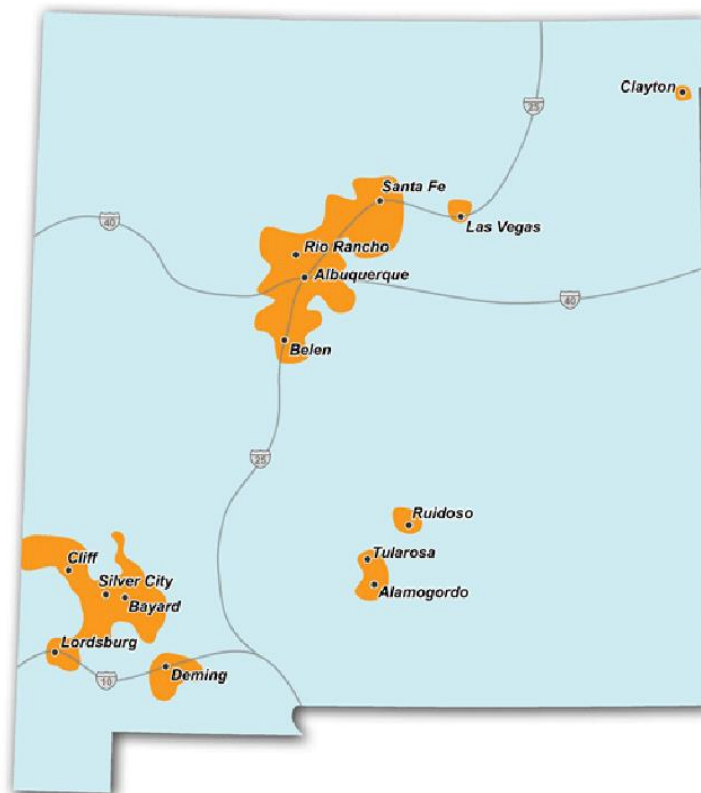
PART 1 – INTRODUCTION

1.1 COMPANY BACKGROUND

Public Service Company of New Mexico (“PNM”) is a wholly owned subsidiary of PNM Resources, Inc. (NYSE: PNM) based in Albuquerque, N.M. PNM is an electric utility that provides generation, transmission, and distribution service. PNM’s retail service territory covers a large area of north central New Mexico, including the cities of Albuquerque, Rio Rancho, and Santa Fe and most of the area around the Rio Grande valley, from Belen to Santa Fe. Other communities served include Lordsburg, Silver City, Deming, Alamogordo, Ruidoso, Tularosa, Clayton, and Las Vegas. PNM also serves several New Mexico Pueblo nations and numerous unincorporated areas. In total, PNM serves about 525,000 electricity customers statewide. As shown in Figure 1, PNM’s electric service territory covers geographically diverse areas. Electric demand and energy usage varies based upon geography, customer mix, and climate.

PNM currently produces nearly 50 percent carbon free energy and has committed to being 100 percent carbon free by 2040, five years ahead of the state’s goal of 2045, as provided in the Renewable Energy Act, NMSA 1978, §§ 62-16-1 to -10 (“REA”). This will involve PNM’s implementation of a combination of energy generation and storage resources over the next 20 years.

Figure 1. PNM’s Electric Service Territory Map



1.2 PURPOSE OF RFP

PNM is progressing with the State of New Mexico's plan to create a sustainable energy future for New Mexico. PNM currently serves retail customers through supply-side resources and demand side management programs reliably, safely, and cost-effectively. Our commitment is to provide reliable power with a cleaner, more sustainable energy resource mix in a cost-effective manner for our customers. PNM is taking significant measures with plans to meet this commitment. We are proud to issue this request for proposals ("RFP") to solicit bids from capable providers to deliver energy and capacity resources in support of this commitment.

This RFP is part of a solicitation process for the purpose of acquiring sufficient reliable, cost-effective resources to meet PNM's forecasted capacity and electric demand, plus reserves, in anticipation of future resource replacement(s). Amongst other considerations, this RFP seeks replacement resources associated with the return of certain Palo Verde leases in January 2023 and January 2024.

Respondents are required to propose resource options that support PNM's transition to a zero carbon energy future by 2040 while fulfilling PNM's obligation to serve its customers with reliable, low cost energy, in an environmentally responsible manner. No resource type or project ownership structure is specifically requested, preferred, or excluded by PNM in response to this RFP. As PNM anticipates future solicitations to satisfy resource needs and to continue to explore opportunity resources, Respondents are encouraged to propose resource options that could potentially offer future capacity expansion and growth.

1.3 RESOURCES SOUGHT THROUGH THIS RFP

PNM is soliciting proposals for capacity and energy resources that facilitate the replacement of a portion of PNM's current portfolio and to support other anticipated resource needs in the near future. Specifically, PNM is targeting the acquisition of 150 MW of accredited capacity for its New Mexico portfolio. The exact quantity of resources selected will be dependent upon resource characteristics and resource modeling including PNM's most recent load and planning forecasts and is subject to New Mexico Public Regulation Commission ("Commission") approval. Parties interested in providing resources that provide the best value to PNM's customers and that are in alignment with PNM's goals of a zero carbon energy future by 2040 are invited to participate in this RFP. Respondents shall propose resources consistent with the requirements outlined in NMSA 1978, Section 62-13-16 and the REA, including but not limited to those that maximize the use of New Mexico work force, employ apprentices for the construction of the facilities, and advance a zero carbon future.

Resources selected under this RFP are targeted for an in-service date prior to June 1, 2023; earlier in-service dates will be considered.

PNM is scheduled to join the CAISO Energy Imbalance Market ("EIM") in April 2021. PNM will factor this future participation into the evaluation and selection process.

1.4 RFP CONTENTS; SOURCING PLATFORM

This RFP includes a description of the request, an outline of the solicitation process, relevant dates, contact information, and proposal submission requirements. All proposals submitted in response to this RFP (each a "Bid" or "Proposal") must be submitted by accessing the RFP event "100-GENALL-2020" listed in PNM Sourcing's public site hosted by Jaggaer as described in Section 7.1 of this RFP.

Respondents to this RFP (each a "Respondent") must follow the instructions provided herein in the preparation and submittal of their Bids.

1.5 RFP PROCESS OVERVIEW

1.5.1 Announcement and Release

The RFP was announced via press release on June 18, 2020. This Instructions to Bidders document is provided as a non-confidential document on the PNM website identified in Section 7.1.1. Interested parties are requested to execute a non-disclosure agreement in order to receive additional Bid Documents. Only interested parties that execute the non-disclosure agreement will receive these additional Bid Documents.

1.5.2 Proposal Development and Evaluation

The Proposal development cycle ("Proposal Development Cycle") is the time from when the RFP is released until Proposals are due; the Proposal Development Cycle is approximately thirteen (13) weeks. While assembling Proposals, Respondents are allowed to ask questions in accordance with the communications protocols in Section 7.1.2, visit sites, and participate in pre-bid conferences.

Upon receipt of Proposals, evaluation will begin immediately and progress in phases. The evaluation of Proposals is more fully discussed in Section 8.

1.5.3 Regulatory Compliance

This RFP is conducted in compliance with New Mexico statutory and regulatory supply resource procurement requirements and guidelines, including compliance with NMSA 1978, Section 62-13-16 and the REA.

Additional regulatory considerations are discussed throughout this RFP.

1.5.4 Role of RFP Administration Team

PNM and its RFP consultants including Aion Energy LLC for RFP administration support and other consultants for portfolio system modeling (together, the "RFP Administration Team") will be responsible for administration and overall management of the RFP process including initial release by PNM's Supply Chain Sourcing Team, supporting the Proposal Development Cycle and supporting the evaluation of Proposals. The RFP Administration Team will be responsible for bid clarifications, Phase 1 through Phase 3 bid evaluation activities including modeling, short-list selection, and contract negotiations for all Proposals. The RFP Administration Team will not be involved in the definition or establishment of EPC technical bid requirements or associated existing site conditions. PNM's Supply Chain Sourcing Team, via the RFP event "100-GENALL-2020," will be the main point of contact for Respondents during the RFP process and all correspondence must be directed through the RFP event unless otherwise directed.

1.5.5 Role of EPC Proposal Facilitator

Throughout the RFP process, technical communications and coordination with Respondents submitting EPC Proposals ("EPC Respondents") will be managed separately from the RFP Administration Team. PNM has assigned a representative from PNM's Generation Engineering team to coordinate with and respond to Respondents offering EPC Proposals ("EPC Proposal Facilitator"). The EPC Proposal Facilitator and their consultant, HDR Engineering, Inc. (together, the "EPC Support Team") will be responsible for providing all existing site technical information, resolving EPC technical bid clarifications, technical review of EPC Bids, and support of the bid evaluation process. The EPC Support Team will not be involved in or be aware of any non-EPC Bids received in response to the RFP process. As with the RFP Administration Team, PNM's Supply Chain Sourcing Team, via PNM Sourcing's public site will be the main point of contact for EPC Respondents during the RFP process and all correspondence must be directed through the RFP event "100-GENALL-2020" and shall

be clearly identified as "For EPC Bid" in the title of the communications unless otherwise directed.

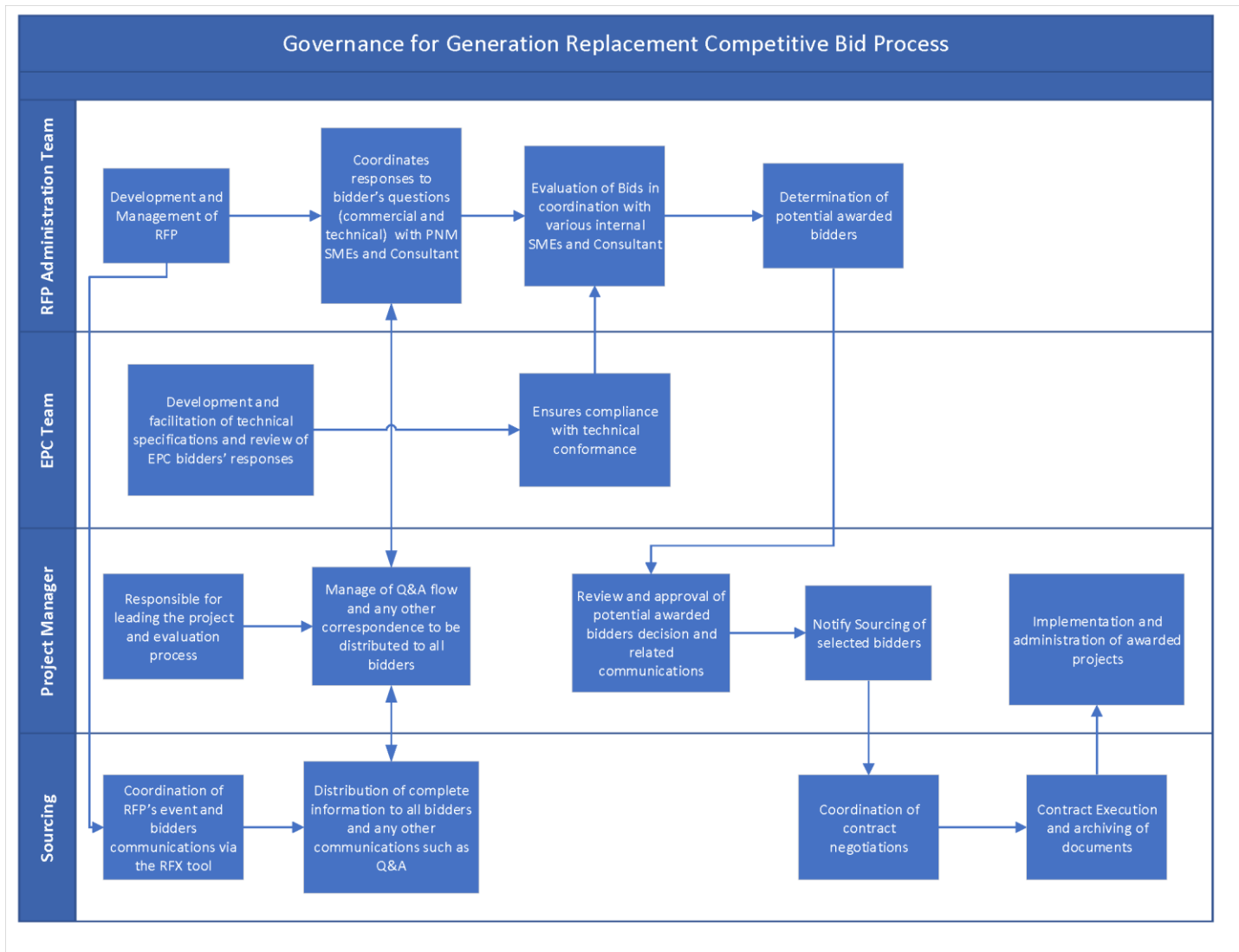
1.5.6 Role of PNM Staff

PNM has subject matter experts ("SMEs") in resource planning, electric transmission planning, natural gas fuel supply planning, portfolio modeling, environmental, and other functions who will be engaged throughout the process.

PNM SMEs will provide input to the RFP Administration Team and the EPC Support Team to support the Proposal Development Cycle and Proposal evaluation throughout the RFP Process.

1.5.7 RFP Process Governance Overview

The following diagram provides a high-level overview of the responsibilities of the RFP team members and the associated progression of the RFP process.



PART 2 - RESOURCE NEEDS ASSESSMENT

2.1 REPLACEMENT RESOURCES

The objective of this RFP is to solicit competitive Proposals from all forms of capacity, energy, and storage resources for the procurement of resources that can best satisfy PNM's system needs for capacity, energy, and reliability requirements.

PNM requires that, in conjunction with the existing resource portfolio, selected resources must be capable of meeting capacity requirements and maintaining necessary system reliability requirements on a portfolio basis. In order to achieve this objective, Proposals will be evaluated in conjunction with PNM's existing and planned resources using both hourly and intra-hour software modeling tools.

2.2 LONG-TERM PORTFOLIO NEEDS

This RFP is part of PNM's continued effort to address its long-term portfolio needs via the implementation of varying generation and/or storage technologies. Resources with the flexibility to be used in multiple applications, including but not limited to providing capacity for peak-usage times, economic dispatch in real-time markets, intra-hour balancing, and contingency reserves are anticipated to demonstrate higher values in PNM modeling. Additionally, PNM anticipates a higher value for resources that will help integrate and firm its increasing portfolio of variable energy resources ("VERs").

PART 3 – COMPLIANCE WITH LAW

PNM will evaluate all resources that meet applicable local, state and federal rules and regulations. PNM's selection of resources will specifically consider the ability of those resources to allow PNM to comply with the provisions of NMSA 1978, Section 62-13-16 and the REA in a reliable and cost-effective manner. Amongst other requirements identified herein, selection of resources from this RFP will consider the following.

3.1 RENEWABLE PORTFOLIO STANDARD

The Commission adopted Rule 17.9.572 NMAC ("Rule 572") to carry out the renewable portfolio standard ("RPS") established in the REA. The REA sets an increasing RPS requirement that 20% of retail sales be served by renewable energy beginning 2020, and increasing to 40% in 2025, 50% in 2030 and 80% in 2040. These requirements are subject to adjustments for voluntary program sales and new procurements are subject to cost impact protections.

3.2 HIRING OF APPRENTICES

Although not required for RFPs issued prior to July 1, 2020, PNM will comply with NMSA 1978, Section 62-13-16 regarding the requirement that, subject to the availability of qualified applicants, the construction of facilities that generate electricity for New Mexico retail customers shall employ apprentices from an apprenticeship program during the construction phase of the project. PNM is requesting compliance with this requirement at a minimum level of ten percent for projects for which on-site construction commences beginning prior to January 1, 2024. Any apprenticeship program relied upon for sourcing the apprentices shall be registered pursuant to the Apprenticeship Assistance Act. Respondents shall identify the extent to which they advertised or investigated the availability of qualified apprentices and the extent to which they shall be employed in Attachment J or EPC Attachment G, as applicable.

3.3 PREFERENCE FOR NEW MEXICO WORKERS

PNM promotes and encourages the use of workers residing in New Mexico to the greatest extent practicable and PNM will take the use of New Mexico workers into consideration in evaluating Proposals. Respondents shall identify the extent to which they anticipate use of New Mexico workers, shall submit with their Bid the percentage of New Mexico workers anticipated to be used, and shall identify what assurances are being provided to maximize this percentage during the actual construction period. Respondents shall identify the extent to which they advertised or investigated the availability of qualified local labor resources and services as well as the extent to which they shall be applied to the proposed project in Attachment J or EPC Attachment G, as applicable.

3.4 EXECUTIVE ORDER ON SECURING THE U.S. BULK-POWER SYSTEM

PNM will require that any project selected from this RFP process comply with the Presidential Executive Order on Securing the United States Bulk-Power System ("Order") issued on May 1, 2020. Respondents shall identify their approach to complying with the Order and avoiding sourcing of equipment and devices designed, developed, manufactured, or supplied by persons owned by, controlled by, or subject to the jurisdiction or direction of foreign adversaries. Specifically, Respondents shall provide the expected equipment supplier(s) and place(s) of origin for all bulk-power system electric equipment as defined in the Order. Additionally, Respondents shall address their methodology for evaluating the full supply chain for components of such equipment and devices. Such information will be reviewed as part of the bid evaluation process after the rules and regulations are more fully developed and issued pursuant to the Order.

PART 4 - ELIGIBLE PROPOSALS

4.1 TYPES OF ELIGIBLE PROPOSALS

The following types of Proposals are eligible for consideration under this RFP:

- Proposals to sell energy, capacity, and/or ancillary services, under a power purchase agreement ("PPA") or under an energy storage agreement ("ESA") with or without an option to purchase the facility. PPA and ESA Proposals must utilize facilities located on a site controlled by the Respondent;
- Proposals to sell all or a portion of a generating asset under an asset purchase agreement ("APA") with rights to all capacity, energy, renewable energy certificates ("RECs"), and all other physical, financial, environmental, or other attributes associated with the asset;
- Proposals for build-transfer ("BT") projects on the Respondent's site. The site, the facility, all other improvements, and all environmental and other attributes of the project would be transferred to PNM upon completion;
- Proposals for engineering, procurement, and construction ("EPC") contracts on a site controlled by PNM, as described in Section 6.4; and
- Proposals for demand-side management ("DSM") products sourced from PNM retail customer load as long as the offering meets the dispatchability, savings and other requirements identified herein.

PART 5 - RESOURCE CHARACTERISTICS

5.1 REQUIREMENTS APPLICABLE TO ALL RESOURCES

The following requirements are applicable to all resource types:

- Technologies proposed must be commercially available and commercially operating at the size and scale proposed;
- It is preferred that Proposals utilize the latest version of the selected technology available at the time of bid, however, grey market equipment will be considered if provided with warranties and guarantees equivalent to those provided by the Original Equipment Manufacturer ("OEM");
- All geographical locations proposed for projects will be considered provided the necessary transmission system improvement costs are accounted for to ensure resources can deliver to PNM load within WECC Path 48 and evidence is provided that such transmission can be built and operational to support the proposed date of commercial operation/start-of-delivery; and
- Proposals involving a combination of resources will be evaluated considering the combined benefits of all resources proposed.

5.2 RENEWABLE RESOURCES

5.2.1 Wind & Solar Resources

PNM will evaluate new wind and solar resource Proposals with respect to their capabilities for operational flexibility and system reliability capability such as Automatic Generation Control ("AGC"), Fast Frequency Response ("FFR"), curtailment optionality, capacity firming optionality, or other reliability technologies and tools. Wind and solar resources with these operational/reliability advantages assist in meeting the reliability requirements of the PNM system. Those advantages may offset pricing differentials between Bids. PNM will also examine any contract limitations or pricing penalties in PPA Proposals associated with operational flexibility, minimum take obligations or maintenance outage scheduling.

5.2.2 Early Introduction of Renewables Encouraged

PNM encourages Respondents to submit Proposals for renewable projects that can make full use of the renewable energy credits as may be appropriate. Therefore, projects able to deliver prior to the June 2023 requested in-service date are encouraged and will be evaluated by PNM through modeling for benefits to PNM customers.

5.2.3 WREGIS Registration and Certification

For all renewable Proposals, the generating facility must be registered or will have to be registered in the Western Renewable Energy Generation Information System ("WREGIS") and its monthly generation reported to WREGIS, with RECs certified by WREGIS and transferable via WREGIS. All costs and fees associated with WREGIS registration and certification will be borne by the Respondent.

5.3 ENERGY STORAGE RESOURCES

Energy storage technologies play an important role in managing carbon-free resource integration including but not limited to offering flexibility and short lead times for construction as well as the abilities to provide ancillary services, manage curtailment, and provide fast response times. These resources improve the ability of PNM's system to incorporate and manage increased VER technologies.

All Energy Storage system Proposals will be evaluated considering the requirements of NMSA 1978, Section 62-9-1 as applicable to the project:

- Reduce costs to ratepayers by avoiding or deferring the need for investment in new generation and for upgrade to systems for the transmission and distribution of energy;
- Reduce the use of fossil fuels for meeting demand during peak load periods and for providing ancillary services;
- Assist with ensuring grid reliability, including transmission and distribution system stability, while integrating VERs into the grid;
- Support diversification of energy resources and enhance grid security;
- Reduce greenhouse gases and other air pollutants resulting from power generation;
- Provide the public utility with the discretion, subject to applicable laws and rules to operate, maintain, and control energy storage systems to ensure reliable and efficient service to customers; and
- Serve as the most cost-effective resource among feasible alternatives.

Projects involving energy storage shall be required to comply with the following requirements:

- Be fully dispatchable by PNM, including within-hour dispatch changes;
- Be capable of nominally 365 annual equivalent full charge and discharge cycles but with the ability to meet varying annual cycling requirements over the resource life as a function of changes in storage use case and/or variation in the needs of PNM's BAA (proposed pricing structure must allow for variability in annual and total cycle quantities and provide a clear definition of a "cycle");
- Be dispatchable across the entire operating range. Resources that are dispatchable from zero (or nearly zero) to full output add additional benefit in meeting a loss of load expectation ("LOLE") requirement of ≤ 0.2 . Resources that have a minimum output greater than zero will be considered as long as they meet the dispatchability requirements across their operating ranges;
- Have the control systems in place with the ability to respond to dispatch signals that originate remotely from PNM operations centers;
- As noted in Section 8.2.2.2 of this RFP for all technologies, commercial viability, maintainability, and maturity of technology proposed at the scale quoted will be considered in the Non-Price Evaluation;
- If combined with a renewable resource and obtaining federal tax credits, be capable of charging and discharging directly to the grid after recovery of the tax credits;
- Include firm pricing for a maintenance agreement to maintain the energy storage capacity (MW and MWh) of the system for the duration of the term quoted or for 20 years for an EPC proposal; and
- Have a minimum rate of charge equivalent to its rate of discharge.

5.4 NATURAL GAS FLEXIBLE RESOURCES

Flexible combustion turbine technologies (aero-derivatives) and reciprocating engines offer the ability to provide fast start times, flexible dispatch, economic ancillary services support and short lead times for construction. These resources improve the ability of PNM's system to incorporate and manage increased VER technologies.

Requirements associated with flexible natural gas resources are included below:

- Be fully dispatchable by PNM, including within-hour dispatch changes;

- Be dispatchable across the entire operating range. Resources that are dispatchable from zero (or nearly zero) to full output add additional benefit in meeting the $LOLE \leq 0.2$. Resources that have a minimum output greater than zero will be considered as long as they meet the dispatchability requirements across their operating ranges;
- Have the control systems in place with the ability to respond to dispatch signals that originate remotely;
- Reciprocating engines - minimum load capability of no more than 25 percent of the unit rated full load capacity;
- Other natural gas technologies - minimum load capability of no more than 40 percent of the unit rated full load capacity;
- Be capable of achieving full output from a cold start in 10 minutes or less (faster start is preferred);
- Be capable of 1,500 starts per year and up to 8,760 hours of annual operation. Proposal and operations and maintenance ("O&M") costs will be based upon an assumed dispatch of 400 starts and 2,500 hours of operation per year;
- Reciprocating engines - minimum down time requirement of less than five (5) minutes after a unit shut down and a minimum up-time requirement of less than five (5) minutes after a unit start;
- Have the ability, including any air permit restrictions, to execute multiple starts and cycle from offline to full output at least five (5) times per day;
- Have a minimum ramp rate of 20% of rated unit capacity per minute both for increasing and decreasing load after initial unit startup and load stabilization, but if this is not achievable, Respondents should indicate the achievable range of ramp rates per generator; and
- PNM, as a Balancing Authority ("BA"), requires a minimum frequency response capability consistent with NERC Standard BAL-003-1 to maintain interconnection frequency within predefined boundaries. PNM requires that Respondents provide actual frequency response via operating governors. This would require that PNM receive the allocated share of frequency response from the proposed unit(s), based on generation capacities.

5.5 OTHER RESOURCES

Resources other than those identified in Sections 5.2 through 5.4, including, but not limited to those such as heavy frame combustion turbine, combined cycle, and solid-fueled resources shall be required to meet the following requirements:

- Be fully dispatchable by PNM, including within-hour dispatch changes;
- Be dispatchable across the entire operating range. Resources that have a lower minimum output provide additional benefit in meeting the requirement for $LOLE \leq 0.2$;
- Have the control systems in place with the ability to respond to dispatch signals that originate remotely;
- PNM, as a BA, requires a minimum frequency response capability consistent with NERC Standard BAL-003-1 to maintain interconnection frequency within predefined boundaries. PNM requires that Respondents provide actual frequency response via operating governors. This would require that PNM receive the allocated share of frequency response from the proposed unit(s), based on generation capacities; and
- Respondents shall identify the following Proposal characteristics in the Bid Forms defined in Section 6.18.2:
 - Minimum load capability;

- Quantity of allowable starts and hours of operation per year;
- Minimum down time after a unit shut down;
- Minimum run time after a unit start;
- Allowable quantity of starts per day; and
- Minimum ramp rate per minute both increasing and decreasing load.

5.6 DEMAND-SIDE MANAGEMENT PROPOSALS

PNM will evaluate Proposals for DSM capacity and energy products as part of this RFP.

PNM is interested in evaluating the following types of DSM capacity or energy products and applications that can deliver services to retail load within PNM's BAA.

- Load reduction from individual customers;
- Load reduction from multiple entities i.e. aggregation; and
- General program management associated with any of the above.

The proposed structure, availability, pricing, and commercial terms for such DSM products shall be clearly detailed in the body of the Respondent's Proposal.

Delivery of services to PNM's BAA will be considered as a PPA if services are deliverable to customers – DSM services must be deliverable to retail customer load as further described in Section 6.

PART 6 – PROPOSAL CONTENT REQUIREMENTS AND SUBMISSION PROCEDURE

6.1 GENERAL

All Proposals must satisfy eligibility requirements set forth in the RFP and be submitted in accordance with the instructions of this RFP to be considered for evaluation.

6.2 "BID DOCUMENTS"

As used in this RFP, "Bid Documents" include all documents comprising this RFP, including but not limited to all design documents, technical specifications, and other appended or related data, all as may be amended or supplemented from time-to-time. The Bid Documents are complementary, and the Respondent must consider anything specified by one and not by the others as binding as though specified by all. In the case of a conflict between the various specification sections and/or the drawings and any supplemental information, the more strict interpretation as determined by PNM will govern.

6.3 REQUIREMENTS APPLICABLE TO ALL PROPOSALS

The following requirements apply to all Proposals. Additional requirements applicable to Proposals for specific project types are included in subsequent sections of this Part 6.

- Due to the potential complexity associated with the implementation of multiple projects at multiple project sites, at its discretion, PNM will consider staging / sequencing the projects from this RFP process. As such, within the date range of January 1, 2023 to June 1, 2023, Respondents are requested to identify the earliest achievable in-service date for the project(s) offered.
- Proposals and pricing must be provided for a planned project in-service date of no later than June 1, 2023.
- Proposals and pricing must remain valid and binding through at least June 30th, 2022, with the date of expiration explicitly stated in the Proposal. PNM may

choose to refresh Proposals and pricing at any time during the Proposal evaluation period.

- All prices in the Proposal and pricing forms must be quoted in nominal U.S. dollars in the year to be incurred.
- Proposals must provide for firm price for the delivery of energy to PNM's load within WECC Path 48.
- Proposals must include all applicable taxes (i.e New Mexico Gross Receipts Tax), licenses, fees, etc. Respondent must provide a clear description and break-out of these taxes, licenses, fees, etc. in the Proposal.
- Proposals involving carbon-emitting technologies must include optionality for carbon-free operation beyond December 31, 2039 or may otherwise be evaluated considering a 17 year useful life.
- Proposals must include all costs of shipping and related expenses associated with the Respondent's work scope.
- Proposals must identify assumed insurances and levels.
- Proposals must comply with all applicable federal, state and local laws.
- Proposals that culminate in a successful project are required to obtain appropriate registration for all applicable NERC functions and must operate equipment within applicable NERC Standards.
- Proposals must clearly identify the environmental characteristics of the project including emissions rates, quantities of disturbed land (public, private, native, or otherwise protected), forecast wildlife impacts, geological and archeological impacts, and other environmental-related factors.
- Proposals for resources on the Respondent's site must identify all costs including electrical interconnection costs. Respondent's Proposal must include firm, not to exceed capital costs with a break-out for electrical interconnection costs. Detailed cost and scope information for the interconnection and power delivery system upgrades must be included in Attachment F – Electrical Interconnection – Power Delivery of the non-EPC Proposal Forms with additional information included, as required, in the Proposal supplemental information. Respondents offering PPA, ESA, BT, or APA offers will be responsible for all transmission arrangements and costs to deliver to PNM's load and will assume that PNM has no available long-term, firm transmission rights that may be re-directed or used for this project. Bidders shall provide verified interconnection and transmission costs developed through FERC transmission interconnection request processes or through an equivalent independent study.
- Proposals must identify the extent to which the Project will implement the use of workers residing in New Mexico and apprentices from an apprenticeship program.
- In accordance with Section 6.17 regarding Compliance with Law, if New Mexico law requires a contractor's license to construct the Project, Respondent must have such license at the time it submits its Proposal, and such license must be issued explicitly in the name of the Respondent. Proposals not conforming with this requirement will not be further considered.

6.4 ADDITIONAL REQUIREMENTS FOR EPC PROPOSALS

Respondents offering EPC Bids and either (i) registering for EPC Site Visits by the EPC Site Visit Registration Deadline identified in Section 7.2 below or (ii) otherwise requesting EPC site data will be granted access to data regarding site characteristics for PNM controlled sites. EPC Respondents are encouraged to provide Proposals at these sites for any resource type as long as the resource capacity and type can feasibly be implemented at the associated site. EPC Respondents shall assume that natural gas interconnection and delivery to the project site, electrical interconnection, and other required utilities will be provided by PNM at its cost. Respondents must clearly state natural gas, electrical interconnection, and other utility requirements in their Proposal.

EPC Bid information including site infrastructure information, site electrical and fuel interconnection capabilities, and additional technical clarifications will be provided by the EPC Support Team. All EPC Respondent communications prior to Bid Submittal shall be submitted to the PNM Sourcing's public site and shall be clearly identified as "For EPC Bid" in the title of the communications. All such communications will then be directed to the EPC Proposal Facilitator for details and inquiries regarding available sites and technical requirements.

Proposals received from EPC Respondents will be evaluated on equal footing with other Proposals. EPC Respondents will be required to provide detailed information regarding the specifics of engineering and constructing an addition to an existing PNM plant or location. For an EPC Bid at PNM-controlled sites, Respondent will be responsible for ensuring that the Proposal will satisfy the existing site permits and electrical interconnection limitations.

6.5 ADDITIONAL REQUIREMENTS FOR PPA / BT / ESA PROPOSALS

- A PPA or ESA Proposal term of twenty (20) years or more is preferred. PPAs for shorter terms will be considered and upon expiration of the quoted term will be evaluated with the modeling of replacement resources consistent with PNM's long-term planning objectives.
- PPAs utilizing carbon-emitting technologies shall provide a pricing alternative for a 17 year term or provide an alternative solution for carbon-free operation beyond December 31, 2039.
- Offered resources must be interconnected to PNM load within WECC Path 48 or at the San Juan switch yard, or delivered on firm, third-party transmission to PNM load within WECC Path 48; in all cases, the ability to deliver to PNM's load is required.
- Costs proposed for all PPA, BT, and ESA resources must include electrical interconnection costs, fuel, and other utility costs if applicable. Respondent's Proposal must include firm, not to exceed, interconnection costs.
- The Proposal must demonstrate credit support as defined in Section 6.7 and/or collateral value sufficient to provide surety of contract performance over the full agreement term. Acceptable methods of surety, in the reasonable discretion of PNM, include (a) cash, (b) a Letter of Credit in a form reasonably acceptable to PNM issued by a U.S. bank or a U.S. branch of a foreign bank with credit ratings by both Standard & Poor's Ratings Group ("S&P") and Moody's Investor Services, Inc. ("Moody's") of at least A- and A3, respectively and at least Ten Billion Dollars (\$10,000,000,000) in U.S.-based assets (c) a Respondent Guaranty from Respondent Guarantor, or (d) other security as may be reasonably acceptable to PNM.

- PPA Proposals, in Attachment D-1, must outline considerations associated with potential reliability curtailments as directed by PNM or another BA.
- For renewable PPA Proposals, the Respondent must configure the ramp rate for the Project such that it will not generate energy at a rate that increases greater than ten (10) MW per minute.
- Respondents proposing BT projects must provide a comprehensive Proposal demonstrating compliance with the applicable Technical Specifications included in Appendix F. For any Proposals considering technologies other than those specified in Appendix F, Respondents must provide sufficient detail to demonstrate that the project will be developed, designed and delivered in accordance with prudent utility practices and to utility-grade standards.
- Due to the associated risk of liabilities (e.g. health, safety, environmental), NERC and WECC security requirements, and the associated complications with having a third-party owner/operator on a PNM-controlled site, PNM will not consider PPA or BT Proposals on existing PNM controlled locations.
- PNM has a preference for PPA Proposals that do not subject PNM to any accounting or tax treatment that results from imputed debt, capital lease or Variable Interest Entity ("VIE") treatment. All PPA Proposals must:
 - Demonstrate that the Respondent has considered applicable accounting standards in regard to capital leases, specifically Financial Accounting Standards Board ("FASB") Accounting Standards Codification Topics ("ASC") 840 and 842 Leases and any PNM variable interest in a VIE pursuant to FASB Topic ASC 810 Consolidation-Variable Interest Entities;
 - Provide analysis and conclusion of the Respondent's knowledge and belief regarding why the Respondent's Proposal would not result in a capital lease (ASC 840 and 842) or a variable interest in a VIE (ASC 810);
 - Summarize any changes that the Respondent proposes to the Model PPA Form Agreements or Term Sheets attached to this RFP in order to attempt to address these issues; and
 - Describe the role of federal and state tax credits (or other incentives) on the financing of the project. Proposals considering qualification of the Federal Production Tax Credit ("PTC") or the Federal Investment Tax Credit ("ITC") must include documentation/evidence of qualification or, as applicable, approach for qualification. Proposals considering PPA structures must be based on the Respondent retaining all risk associated with federal tax credit qualification including any associated price and schedule impacts.

6.6 ADDITIONAL REQUIREMENTS FOR APA PROPOSALS

All APA Proposals must provide a description of the proposed transaction from a tax perspective, including whether the Respondent plans to sell an LLC or assets, which could have tax implications for PNM. Costs proposed for all APA resources must include all electrical interconnection, fuel, and other utility costs, as applicable. Respondent's Proposal must include firm, not to exceed, interconnection costs.

6.7 CREDIT REQUIREMENTS

The Respondent must be able to satisfy PNM's credit standards to ensure the Respondent has adequate financial capability. PNM requires qualified Respondents to either have an investment grade rating (S&P BBB- or above; Moody's Baa3 or above), or have sufficient equity security to cover Respondent's anticipated delivery obligations under any agreement entered into as a result of this RFP process. PNM will utilize the lower of the published credit ratings from S&P or Moody's for long-term senior unsecured debt to determine a Respondent's credit rating. PNM may also consider credit rating by other credit agencies. If Respondent is unable to satisfy the foregoing credit standards, Respondent may designate a Credit Support Provider / Guarantor, and if the Credit Support Provider / Guarantor is satisfactory to PNM, the Respondent will be deemed to have satisfied PNM's credit standards. The quality of credit of the proposed Credit Support Provider / Guarantor will be evaluated under the same standards as that of the Respondent.

Execution of a final, definitive agreement under this RFP will be conditional upon full satisfaction of PNM's credit support requirements. PNM reserves the right to require additional credit standards and to review and evaluate the quality of credit of each Respondent and Credit Support Provider/Guarantor and to make adjustments, as necessary, in the application of the foregoing standards.

6.8 COST OF BIDDING

Respondent will bear all costs associated with the preparation and submission of its Bid. Neither PNM, nor its parent company or affiliates, nor any agent of PNM will be responsible or liable for any costs, regardless of the cost or outcome of the bidding process.

6.9 BID SUBMISSION FEE

A non-refundable RFP submission fee of \$5,000 per Respondent must accompany the Proposal in order to qualify the Proposal for consideration. For purposes of this RFP, multiple options submitted by a single Respondent will only incur one fee, provided the options do not differ in type of Proposal offered (e.g. PPA, EPC, APA, BT; a Respondent would incur two bid fees if they submitted a PPA Proposal and a BT Proposal). The fee may be paid by certified check made out to "Public Service Company of New Mexico". Payment via ACH is also accepted.

Mail bid fees to: Public Service Company of New Mexico
 Attn: Division Accounting MS-ES01
 2020 Gen Resources RFP
 4201 Edith Blvd.
 Albuquerque, NM 87107

ACH Remittance Instructions:

Bank Name: Wells Fargo Bank
ABA# 12100248
Attn: Dan Conklin
MAC: Q2129-103

200 Lomas Blvd. NW

Albuquerque, New Mexico 87102

Phone: (505) 765-5224

Beneficiary:

Account Name: PNM Misc. Depository

Account No.: 651-100-3698

For: PNM 2020 Replacement Generation RFP

6.10 DISCLAIMER

Respondent is responsible for examining the complete Bid Documents and any subsequently issued RFP addenda and is responsible for analyzing all RFP requirements that might in any way affect the cost of the project or performance of any part of the work to be completed in connection with the project ("Work"). Failure to do so will be at the sole risk of the Respondent, and no relief will be given for errors or omissions resulting therefrom.

6.11 RESPONDENT'S REPRESENTATION

Each Respondent, by submitting a Proposal, represents that the Respondent has read and understands the Bid Documents and is familiar with the local conditions under which the Work is to be performed. Respondent further represents that it has all licenses and permits required by applicable law to submit its Bid.

6.12 REQUIRED APPROVALS

Each Proposal must state that Respondent has obtained all necessary internal approvals prior to the submission of the Proposal. All Proposals must be signed as follows:

- Corporations: Signature of officer must be accompanied by a certified copy of the resolution of the Board of Directors authorizing the individual signing to bind the corporation.
- Partnerships: Signature of one partner must be accompanied by a certified copy of the power of attorney authorizing the individual signing to bind all partners. If a certified copy of the partnership's certificate submitted with the Bid indicates that all partners have signed, no authorization is required.
- Joint Ventures: Signature by one of the joint venture parties accompanied by a certified copy of the power of attorney authorizing the individual signing to bind all the joint venture parties. If a certified copy of the joint venture party's certificate submitted with the Bid indicates that all joint venture parties have signed, no authorization is required.

6.13 PROPOSAL SUBMITTAL

Respondents must submit Proposals via PNM Sourcing's public site by accessing the RFP event "100-GENALL-2020", where instructions for submitting Proposals are also provided. Complete Proposals, including all exhibits, forms, and fee, must be received on or before 4:00 p.m. (MST) on the RFP response due date via the RFP event. All Proposals will become the property of PNM and will not be returned to the Respondent.

6.14 WITHDRAWAL OF BIDS

A Respondent may withdraw a Bid, either personally or by written request, at any time prior to the scheduled time for opening Bids. No Respondent may withdraw a Bid prior to June 30, 2022 without written consent of PNM, and Bids will be subject to acceptance by PNM during this period.

6.15 CONFIDENTIALITY AND COMPLIANCE

PNM will take reasonable precautions and use commercially reasonable efforts to protect any claimed proprietary and confidential information contained in a Proposal, provided that such information is clearly identified by the Respondent as "PROPRIETARY AND CONFIDENTIAL MATERIAL". Notwithstanding the foregoing, PNM in its sole discretion may release such information: (1) to any external contractors for the purpose of evaluating Proposals, but such contractors will be required to observe the same care with respect to disclosure as PNM; (2) to others who have a need for such information for purposes of evaluating the RFP and the Proposals, the RFP process or a final definitive agreement resulting from the RFP process ("Agreement"), including but not limited to the Commission, its employees, staff, consultants and/or agents, and other parties, their consultants and/or agents, or in any Commission proceedings relating thereto; or (3) if PNM is requested or compelled to disclose such information (or portions thereof) (i) pursuant to subpoena or other court or administrative process, (ii) at the direction of any governmental authority with jurisdiction over PNM, or (iii) as otherwise required by law. If PNM determines that the release of such information will be made under one of the circumstances set out above, PNM will provide Respondent with written notice. PNM is under no duty or requirement to Respondent to withhold such information or take legal steps to protect the information from disclosure if, in PNM's judgment, there is a need to provide it under the circumstances described above. Under no circumstances will PNM, its parent corporation or affiliates, or any of their directors, management, employees, agents or contractors be liable for any damages resulting from the disclosure of Respondent's claimed proprietary and confidential information during or after the RFP process. By submitting a Proposal in response to this RFP, Respondent acknowledges and agrees to the requirements in this provision concerning confidentiality. In the event PNM uses internal, proprietary projections in its evaluation process, the resulting projections will not be shared with Respondents.

6.16 COLLUSION

By submitting a Proposal to PNM in response to this RFP, the Respondent certifies that the Respondent has not divulged, discussed, or compared its Proposal with other Respondents and has not colluded whatsoever with any other Respondent or parties with respect to its Proposal or other Proposals; provided, however, that this provision does not and is not intended to prevent multiple parties from making a joint Proposal in which the roles and responsibilities of each party are clearly delineated in the Proposal.

6.17 COMPLIANCE WITH LAW

Each Respondent must ensure that its Proposal is in full compliance with all applicable Federal, State and local laws, rules, regulations or other requirements. It is the obligation of Respondent to determine whether a contractor's license is required to submit a Proposal and/or complete the Work. If a license is required to submit a Proposal, Respondent must ensure that the license is issued in its name and that Respondent is in possession of such license at the time it submits its Proposal. Proposals for EPC and BT projects must include copies of required license(s) in the Proposal submittal. Additional information may be obtained from the New Mexico Construction Industries Division - <http://www.rld.state.nm.us/construction/>.

It is the obligation of Respondent to determine whether a professional engineering license in one or more disciplines is required to perform the Work and to ensure that Respondent is in possession of such license at the time it submits its Proposal. New Mexico Administrative Code Rule 16.39.3.12. See also, generally, NMSA 1978, Sections 61-23-1 through 61-23-24 and New Mexico Administrative Code Title 16, Chapter 39, Part 3. Additional information may be obtained directly from the New Mexico Board of Licensure for Professional Engineers and Professional Surveyors - <http://www.sblpes.state.nm.us>.

6.18. BID FORMAT AND CONTENTS

This section outlines the content and format requirements for all Proposals submitted in response to this RFP. Unless PNM in its sole discretion elects otherwise, Proposals that do not include the information requested in this section will be ineligible for further evaluation, unless PNM determines that the information requested is not applicable or not relevant to a given Proposal. PNM reserves the right to conduct any further due diligence it considers necessary to fully understand and evaluate Proposals prior to entering into any Agreement.

A complete Proposal will include the following components:

- Executive Summary;
- Complete set of applicable Bid Forms (Forms identified below);
- Form attachments (as necessary to elaborate on Bid Form information); and
- Any additional electronic data or narrative discussion.

6.18.1 Executive Summary

The Executive Summary should briefly describe the Respondent, the project(s) or resource(s) that are part of the Proposal, the capacity amount, timing and term of the Proposal, and key highlights of the pricing and terms of the Proposal, including whether it will be considered a capital lease or be subject to VIE treatment.

6.18.2 Bid Forms

Required Bid Forms will vary between EPC Proposals and all other Proposals. The required forms for each are as identified below. To the extent the full completion of any form requires additional information or clarification, please provide that information as an attachment to the form. Information provided in these forms will be a basis for determining performance guarantees associated with a potential Agreement. Electronic submissions should include the completed Bid Forms in the format provided on the RFP event.

6.18.2.1 EPC Bid Forms. The Bid Forms for EPC Proposals include:

- EPC Attachment A – Notification of Intent to Bid Form
- EPC Attachment B – Bid Profile
- EPC Attachment C – Bid Certification Form
- EPC Attachment D – Proposal Form
- EPC Attachment D-1 – Price Breakdown Table
- EPC Attachment E-1 – Commercial Clarifications and Exceptions
- EPC Attachment E-2 – Technical Clarifications and Exceptions
- EPC Attachment F – Conflict of Interest Form
- EPC Attachment G – Contracting/Employment Plan
- EPC Attachment H – Milestone Payment Schedule
- EPC Attachment I – Cancellation Schedule
- EPC Attachment J – Proposal Data Forms
- EPC Attachment K – Technical Submittal Checklist
- EPC Attachment L – RFI Log

EPC Attachment M – Bulk-Power System Equipment Sourcing Methodology

6.18.2.2 Non-EPC Bid Forms. The Bid Forms for all Proposals, other than EPC Proposals, include:

- Attachment A – Notification of Intent to Bid Form
- Attachment B – Bid Profile
- Attachment C – Bid Certification Form
- Attachment D-1 – PPA Proposal Data Forms
- Attachment D-2 – APA Proposal Data Forms
- Attachment D-3 – BT Proposal Data Forms
- Attachment D-4 – ESA Proposal Data Forms
- Attachment E – Technical Description
- Attachment F – Electrical Interconnection – Power Delivery
- Attachment G – Fuel Information
- Attachment H – Permitting, Land Use, Zoning
- Attachment I – Project Milestones
- Attachment J – Contracting/Employment Plan
- Attachment K – Bulk-Power System Equipment Sourcing Methodology
- Attachment L – RFI Log
- Attachment M – Conflict of Interest Form
- Attachment N – APA/BT Technical Submittal Checklist

6.18.2.3 EPC Supplemental Information. In addition to the forms noted above, Respondents must include supplemental information to clearly identify the scope of the Proposal. The supplemental information for EPC Proposals, at a minimum, must include the following, in the order identified, with each topic beginning on a separate page.

- A. Description of the Respondent
- B. Financial Information / Credit Quality
- C. Exceptions / Red-Line Markup to the form Contract (provide in original, native file formats with tracked changes)
- D. Identification of all Pricing Terms
- E. EPC Contractor Rate Schedule (engineering, construction, field labor, and equipment)
- F. Required Licenses as referenced in Section 6.17
- G. Project Description
- H. Equipment Description
- I. EPC Experience / Similar Projects
- J. Project Team Organization and Resumes
- K. Contracting and Employment Plan
- L. Corporate Environmental, Health, and OSHA Safety Records for the last three years
- M. Project Implementation Schedule
- N. Project and Construction Execution Plan
- O. Other Attributes

6.18.2.4 Non-EPC Supplemental Information. The supplemental information, at a minimum, must include the following, in the order identified, with each topic beginning on a separate page.

- A. Description of the Respondent
- B. Financial Information / Credit Quality
- C. Contract Accounting / Project Financing Plan

- D. Identification of all Pricing Terms
- E. Project Description
- F. Power Delivery Plan
- G. Transmission Plan
- H. Interconnection Plan
- I. Fuel Contracting Plan
- J. Project Environmental Overview
- K. Operations and Maintenance Plan
- L. Contracting and Employment Plan
- M. Environmental Permitting and Compliance Plan
- N. Corporate Environmental, Health, and OSHA Safety Records for the last three years
- O. Exceptions / Red-Line Markup to the applicable form Contract or Term Sheet (provide in original, native file formats with tracked changes) or, for DSM Proposals, a standard form agreement for the product proposed
- P. Assignability
- Q. Projects to-be-built
 - 1. Equipment Description
 - 2. Required Licenses as referenced in Section 6.17
 - 3. Development Experience
 - 4. Development Schedule
 - 5. Real Property Acquisition Description and Plan
 - 6. Permitting Plan
 - 7. Community/State Reaction Assessment
- R. Other Attributes

PART 7 – RFP PROCESS

7.1 COMMUNICATION

7.1.1 PNM Sourcing's Public Site

All inquiries and other communications relating in any manner to this RFP will be hosted on the RFP event "100-GENALL-2020" for the PNM 2020 Replacement Generation RFP posted in PNM Sourcing's public site hosted by Jaggaer. RFP communications and documents can be found within the RFP event.

Below is the link to access PNM Sourcing's public site:

<https://bids.scquest.com/apps/Router/PublicEvent?CustomerOrg=PNMResources>

PNM makes no commitment to respond to other communications received via telephone, FAX, text messaging or other media. Additionally, Respondents may not rely on any oral representation or oral modification made by any PNM employee or agent of PNM. In order to preserve transparency in the process and to assure that all Respondents receive equal consideration, Respondents may not contact any PNM employees or agents of PNM in regard to this RFP. Failure to comply with this requirement could result in disqualification of the corresponding Proposal. All communications are to be conducted through the RFP event.

7.1.2 Responses to Inquiries

PNM will prepare written responses to questions received and will post the responses (without identification of the party asking the questions) on the RFP event for all

Respondents who submit a Notice of Intent to Respond. All questions must be submitted via the RFP event and the RFI Log template included with these Bid Documents.

Questions must be formatted as follows:

- Clearly identify specific document reference to which the question pertains, and date;
- Clearly identify the document language or section in question; and
- Sequentially number each question in each submittal.

Questions must be timely submitted in groups to allow for proper consideration and response. Questions that Respondent believes to be commercially sensitive or confidential must be individually marked as "Confidential". Questions marked "Confidential" will not be shared with other Respondents unless PNM determines that the question is a general, non-sensitive technical or commercial question.

7.2 SCHEDULE

The RFP process will proceed in accordance with the following schedule:

BID SCHEDULE – ACTIVITY	DATE
RFP Process Announced / Non-Disclosure Agreement Available on PNM's RFP event	June 18, 2020
RFP/Bid Documents available	June 25, 2020
Pre-Bid Conference and EPC Site Visit Registration Deadline	July 7, 2020
Pre-Bid Conference	July 14, 2020
EPC Site Visits	July 15-17, 2020
Notification of Intent to Respond Due **	July 29, 2020
Deadline for Questions from Respondents	September 11, 2020
RFP Response & Proposal Fee Due*	September 23, 2020
Successful Short-List Respondents Notification	4 TH Quarter 2020
Successful Respondent Notification	1 ST Quarter 2021
Estimated Commission Approval of Selected Project(s)	1 ST Quarter 2022
Targeted Power Supply / Commercial Operation Date	June 1, 2023 or before

* Respondents must note that the RFP response due date is firm. No extensions to the bid process duration as noted above will be offered.

- ** Respondents executing a non-disclosure agreement and receiving the Bid Documents after the Notification of Intent to Respond due date shall be required to submit their Notification of Intent to Respond within one week of executing the non-disclosure agreement.**

PNM reserves the right to revise, suspend, or terminate this RFP process and any schedule related thereto at its sole discretion without liability to Respondents or any other person or entity.

Communications regarding the status of this RFP process, including any and all changes and addenda to this RFP or attendant schedules, will be made via the RFP event.

7.3 PRE-BID CONFERENCE

7.3.1 Schedule

PNM will host a pre-bid conference further detailing information requested in the RFP. A webinar will be available and preliminary details will be provided on PNM Sourcing's public site. Please check the RFP event for any schedule changes or updates. Interested parties and Respondents are encouraged to listen on-line and bring any questions requiring clarification. Your registration, submitted via the RFP event, will be required to assure adequate webinar access for participants.

Date: **Tuesday July 14, 2020**

Time: **3:00 PM – 5:00 PM, Mountain Time**

Webinar Details: To be communicated via PNM Sourcing's public site

7.3.2 Site Visit Details

PNM will host site visits or otherwise collaborate to provide information regarding the potential EPC project sites upon Respondent request and as coordinated with the EPC Proposal Facilitator. Prior registration via PNM Sourcing's public site for site visits will be required to allow the EPC Proposal Facilitator to assure adequate space and access security for site visit participants. Alternatively, Respondents may request other forms of site investigation via webinar, video-conferencing, or other forms of data exchange.

Respondents participating in site visits are responsible for their own personal protective equipment ("PPE"), transportation, food, and lodging arrangements and must arrive at the agreed location(s) no later than the time as agreed with the EPC Proposal Facilitator.

7.4 SITE INSPECTION

In addition to these site visits, any supplemental information provided by the EPC Support Team, and examination of the Bid Documents, each Respondent will be solely responsible for conducting such due diligence as it deems necessary or desirable to be fully informed as to the existing and expected job site and off-site conditions and matters which might in any way affect the cost and/or the performance and completion of the Work. Any failure by Respondent to fully investigate the job site and complete its due diligence as to job site conditions will not relieve Respondent from responsibility for estimating properly the difficulty or cost of successfully performing and completing the Work.

In addition, prior to submitting its Bid, Respondent must familiarize itself with local conditions that could affect or impact the Work in any manner whatsoever, and all requirements of applicable permits, licenses, laws, codes, rules, regulations, ordinances,

statutes, labor policies, zoning, and local transportation issues. All communications with any local authorities must be coordinated through PNM.

7.5 NOTIFICATION OF INTENT TO RESPOND

In order to identify persons or entities interested in submitting a Proposal, and for those persons or entities to receive any subsequent information distributed in the Proposal process, interested parties shall submit via the RFP event a Notification of Intent to Respond on or before 4:00 P.M. Mountain Time on the Notification of Intent to Respond due date. The form is available as Attachment A to this RFP and can be downloaded from the RFP event.

Any Respondent requesting access to the Bid Documents and executing a non-disclosure agreement after the Notification of Intent to Respond due date shall be required to submit their Notification of Intent to Respond within one week of executing the non-disclosure agreement.

Respondents shall identify the type(s) of project structure that they intend to bid in the Notification of Intent to Respond.

7.6 OWNERSHIP OF BID DOCUMENTS

The Bid Documents are confidential, are the property of PNM, and are only for the purpose of Respondents' preparing and submitting a Proposal in response to this RFP. In anticipation of a confidentiality agreement between Respondent and PNM for the project, no information contained or referred to in the Bid Documents may be disclosed or released except as agreed to by PNM.

7.7 PNM RESERVATION OF RIGHTS AND DISCLAIMERS

Nothing in this RFP constitutes an offer or acceptance by PNM, and PNM hereby disclaims any intent for this RFP to constitute a binding contract between PNM and any Respondent. PNM retains the right to determine, in its sole discretion, the value to PNM and its customers of any or all Proposals. PNM reserves the right to negotiate with a Respondent or Respondents after submission of a Proposal. PNM further reserves the right to negotiate with only those Respondents whose Proposals, as PNM determines in its sole discretion, have a reasonable likelihood of being executed. In the event negotiations with a Respondent or Respondents do not produce a final and fully executed Agreement satisfactory to PNM and authorized by the Commission, without material changes, for inclusion in PNM's resource portfolio, PNM reserves the right to pursue any and all other resource options available to it.

PNM may reject any Proposal that it determines, in its sole discretion:

- Does not meet the minimum requirements set forth in the RFP; or
- Does not include all required elements under Commission Rule 572; or
- Does not provide required information in a manner that allows effective evaluation; or
- Is not economically competitive with other Proposals or, when evaluated in combination with other selected Proposals, does not meet PNM's requirements for energy, capacity and flexible generation by 2023.

PNM reserves the right, without qualification and in its sole discretion, to modify, suspend or withdraw this RFP, accept or reject any or all Proposals for any reason at any time after submittal without explanation to the Respondent, or to enter into an Agreement at any time with a Respondent who, in the opinion of PNM, will provide the most value to PNM

customers. PNM also reserves the right to contract with Respondent(s) other than the lowest price Respondent or with other than the Respondent evidencing the greatest technical ability, if PNM, in its sole discretion, determines that to do so would result in the greatest value to PNM customers.

PNM may, at its sole discretion, and at any time throughout the Proposal development cycle, Proposal evaluation or negotiations request changes to Respondents' Proposals, scope or general offering as may be desired by PNM or as may be necessary based on regulatory requirements.

PNM, in its sole discretion, may decline to enter into an Agreement with any Respondent, and may terminate negotiations with any Respondent, at any time during the process.

Those Respondents who submit Proposals do so without legal recourse against PNM, PNM's parent company or affiliates, and the directors, management, employees, agents or contractors of any of them, due to (1) PNM's rejection, in whole or in part, of the Respondent's Proposal; (2) PNM's rejection, modification, delay or withdrawal, in whole or in part, of this RFP; (3) failure to execute any Agreement; and (4) any other reason arising out of this RFP. PNM will not be liable to any Respondent or to any other party, in law or equity, for any reason whatsoever relating to PNM's acts or omissions arising out of or in connection with the RFP process.

Respondent will be liable for all of its costs, and PNM will not be responsible for any of Respondent's costs, incurred to prepare, submit, or negotiate its Proposal, a definitive Agreement or any other activity related thereto.

PNM reserves the right, at any time, to establish a minimum and/or maximum amount of energy to be acquired under any Proposal or combination of Proposals.

PART 8 – BID EVALUATION AND CRITERIA

8.1 CLARIFICATION OF PROPOSALS

PNM may request clarification or additional information during the RFP evaluation process about one or more items in a Respondent's Proposal. Such requests will be sent via email to Respondents, who will be required to provide an electronic response within five (5) business days, or PNM may deem the Respondent to be non-responsive and either suspend or terminate evaluation of the Proposal. Respondents may provide an alternate point of contact to ensure a timely response to clarification questions.

8.2 EVALUATION OF PROPOSALS

The objective of this RFP is to identify and procure resources that, when combined with the existing PNM generation portfolio, support overall reliability of system service and result in a portfolio of generating resources capable of meeting capacity and energy needs of PNM's customers at a low cost. The objective of the evaluation is to fairly and competitively select those projects that bring the most value to PNM's customers while, consistent with the objectives of NMSA 1978, Section 62-13-16, the REA, and the IRP Rule, preferring resources with the least environmental impacts, those that maximize employment of New Mexico work force, and those that utilize apprentices for the project construction. In addition to the evaluation of individual Proposals as described below, PNM will conduct an evaluation of the overall portfolio of resources.

8.2.1 Phase One Evaluation

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., Section 5.1

and Part 6). 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 will disqualify a Proposal from further consideration, and the Respondent will be notified in such event. PNM reserves the right, in its sole discretion, to either reject incomplete or unclear Proposals from further consideration or to contact Respondents for purposes of Proposal clarification, pursuant to Section 8.1 of this RFP.

8.2.2 Phase Two Evaluation

Proposals that have provided the required data and satisfied the minimum Bid requirements will be passed to Phase Two of the evaluation. Phase Two of the evaluation will focus primarily on pricing factors associated with each Proposal, the overall viability of the Proposal with respect to its ability to achieve commercial operation by the required in-service date, and overall compliance with the objectives of NMSA 1978, Section 62-13-16, the REA, and the IRP Rule. Both price and non-price criteria for each Proposal will be summarized and evaluated. Proposals will be ranked on a total evaluated delivered cost of energy basis with non-price evaluation factors considered in establishing a "short-list" of Bids. Respondents must include sufficient detail for PNM to be able to evaluate all costs associated with the Proposal(s). Price and non-price evaluation factors considered in the establishment of a short-list are summarized below.

If available in response to the RFP, a sufficient quantity of Bids of each proposed technology will be carried into the selected short-list to fulfill the RFP needs identified herein. These short-listed projects will be carried into more detailed system portfolio modeling in Phase Three of the evaluation.

8.2.2.1 Price Evaluation Process. PNM will 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 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.

In Phase Two, Proposals will be ranked on the basis of minimizing the total evaluated delivered cost of energy (i.e. total cost impact) from the resource. Proposals with a low total cost impact on the PNM system will receive a higher score than Proposals with a high total cost impact.

8.2.2.2 Non-Price Evaluation Process. The following non-price factors will be given consideration in the Phase Two evaluation process. These factors are established as a measure of the viability of the Project and the Respondent's ability to deliver the Project, as proposed.

- A. Project Viability including:
 - 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, licensing or transmission interconnection;
 - 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.
- B. 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);
- C. Project Employment Plan – measuring Respondent's intention for employment of local, New Mexico work force and apprentices for the construction of the facilities;
- D. Environmental and Siting Plan – An assessment of the emissions profile, environmental footprint and overall environmental feasibility for each Project, site, access, and all necessary right of ways; and
- E. Respondent's OSHA Safety records.

At the end of Phase Two, a short-list of projects will be determined, at which time Respondents may be requested to supply additional information. Unsuccessful Respondents will be notified at the end of the Phase Two assessment that their Proposals will not be considered further. Successful Respondents will be notified via the RFP event that they have passed to the third phase of the process, whereupon additional evaluation will be conducted and the preferred resources identified ("Phase Three").

8.2.3 Phase Three Evaluation

Following the Phase Two evaluation, short-listed Proposals will undergo further investigation and evaluation in the Phase Three evaluation. The Phase Three evaluation will involve portfolio system modeling, more in-depth assessment of the pricing factors noted above as well as comparison and ranking of additional non-price factors. All factors will be ranked in a Bid 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).

8.2.3.1 Non-Price Evaluation Process. In addition to the non-price evaluation factors identified in the Phase Two evaluation, the additional factors reviewed in the Phase Three evaluation and the Bid ranking matrix will include the following:

- A. Commercial / Contract Compliance including:
 - a) Degree of acceptance of PNM's commercial terms; and
 - b) Product and equipment warranty protections.
- B. Respondent Characteristics including
 - a) Creditworthiness;
 - b) Ownership structure and operating history;
 - c) Health and safety history (see Section 8.3.2 below);
 - d) Environmental record/history; and
 - e) Financing plan/structure.
- C. Environmental Considerations including:
 - a) A Respondent's Environmental Management System, i.e., how the Respondent handles the environmental risk and recycling of project materials associated with its operations and the extent Respondent has developed and implemented an Environmental Management System.
- D. Project Design Plan / Characteristics including:
 - a) Operational flexibility characteristics of the proposed resource and its ability to support CAISO EIM participation (start times, ramp rates, frequency response, minimum down-times / up-times, allowable start frequency, etc.). In particular, if proposing a PPA, limitations on or financial consequences of curtailments, maintenance scheduling, or operational parameters will be evaluated;
 - b) Operations and maintenance plan for the project; and
 - c) Preliminary engineering study describing the generation technology, emission control equipment and fresh water usage.
- E. Electrical Interconnection Plan / Transmission System Benefits including:
 - a) Assessment of Respondent's transmission capability/deliverability analysis to deliver power to PNM load within WECC Path 48 and how Respondent proposes to address potential transmission constraints; and
 - b) Benefits to PNM's electrical transmission system (locational, capital deferral, reliability, etc.).
- F. Community / Stakeholder Considerations including:
 - a) Assessment of community and stakeholder engagement

implemented by the Respondent.

8.3 CONTRACTUAL CONSIDERATIONS

8.3.1 Small Business Plans

PNM promotes and encourages diversity in project sourcing and encourages all Respondent's to maximize the use of small businesses, veteran-owned small businesses, service-disabled veteran-owned small businesses, HUBZone small businesses, small disadvantaged businesses, and women-owned small business concerns to the greatest extent practical.

8.3.2 Contractor Safety Prequalification Program

PNM has implemented a Contractor Prequalification process as part of their effort to continuously improve in the areas of health, safety, risk, and finance. Respondents who are finalists of this RFP will be required to register with ISNetworld (ISN) auditing at:

<https://www.isnetworld.com>

and obtain a passing safety grade prior to final award of the contract. PNM will notify all finalists and allow reasonable time for the registration process. Contractor is responsible for any Registration's associated costs.

8.3.3 Insurance

The successful Respondent will be required to maintain, at a minimum, standard insurance coverages for Workers' Compensation; Commercial General, Employer's and Automobile liability; and an Umbrella excess liability. Respondents are requested to provide evidence and level of coverage of such insurance for bidding purposes in the Proposal. Specific insurance requirements of PNM and lender's will be addressed as part of the evaluation and negotiation of the Agreement.

8.3.4 Commercial Terms and Conditions

Commercial terms and conditions will be negotiated with the Respondents who are finalists of this RFP. All Proposals will represent a firm offer to contract on the terms and conditions included as Appendices to this RFP. Each representation of fact and promise of future performance within a Proposal will be incorporated into the Agreement as a warranty or covenant. Any statement of fact or promise of future performance that is not intended by the Respondent as a warranty or covenant should be clearly identified.

8.4 AWARD

PNM reserves the right to reject any and all Bids and will inform unsuccessful Respondents upon rejection of their Bids. Prior to PNM's bid award, PNM may have discussions with Respondents whose Bids are under consideration. Respondents may be required to travel to PNM's office or other locations for further discussions.

Negotiations arising out of the Proposals may be conducted with any or all Respondents, at PNM's sole discretion. Winning Respondents will be expected to enter into an Agreement following the award of the Bid. PNM will have no obligation to accept any Proposal submitted pursuant to this RFP. Whether, and on what terms, any Proposal is accepted is within PNM's sole discretion.

A Proposal will be deemed formally accepted only if and when the Agreement has been executed by a Respondent and delivered to PNM, and PNM has signed it. Until such time, none of PNM, its parent company, its subsidiaries or its other affiliates will have any obligation to any Respondent with respect to a proposed project, and following such time,

the only obligations of PNM will be those set forth in the Agreement. By submitting a Proposal, each Respondent agrees that PNM (i) is under no obligation to consider or accept any Proposals made, (ii) will not be liable to any Respondent for the selection of one Proposal in lieu of another Proposal or combination of Proposals and (iii) will not be liable for any costs incurred by any Respondent in connection with this bid process. By submitting a Proposal, each Respondent agrees to the terms of these Instructions to Bidders and acknowledges that it is relying solely upon its own independent investigation and evaluation of its proposed project.

Proposal Evaluation Methodology

PNM Exhibit RWN-5

Is contained in the following 29 pages.



2020 Replacement Generation RFP

Proposal Evaluation Methodology

Revision A

September 23, 2020



2020 Replacement Generation RFP

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ATTACHMENTS

Attachment A	RFP Schedule (Subject to Refinement)
Attachment B	Bid Comparison Template
Attachment C	Shortlist Scoring Matrix



2020 Replacement Generation RFP

EXECUTIVE SUMMARY

Public Service Company of New Mexico ("PNM") a wholly owned subsidiary of PNM Resources, Inc., issued a request for proposals ("RFP") entitled the PNM 2020 Replacement Generation RFP (the "2020 RFP") on June 25, 2020. The purpose of the 2020 RFP was to acquire sufficient resources to meet PNM's forecasted capacity and electric demand, plus reserves, in anticipation of future resource replacement(s). The RFP was targeting the acquisition of 150 MW of accredited capacity for its New Mexico portfolio partially to replace capacity associated with the return of certain Palo Verde leases in January 2023 and January 2024.

Responses to the RFP ("Proposals") by qualified bidders ("Bidders") are due on September 23, 2020. PNM has compiled a team of personnel ("RFP Administration Team") consisting of personnel from PNM's Supply Chain Sourcing, Generation, Regulatory, and Financial Modeling Teams with support from numerous other internal subject matter experts ("SMEs"). Aion Energy LLC has also been engaged as a consultant for RFP administration support. The RFP Administration Team will not be involved in the definition or establishment of EPC technical bid requirements or associated existing site conditions. In parallel, a team ("the EPC Support Team") has been established to be responsible for providing all existing site technical information, resolving EPC technical bid clarifications, technical review of EPC Bids, and support of the bid evaluation process. HDR Engineering, Inc. ("HDR") has been engaged as a participant on the EPC Support Team as an Owner's engineer. The EPC Support Team will not be involved in or be aware of any non-EPC Bids received in response to the RFP process.

PNM is anticipating a wide variety of Proposals to be submitted in response to the 2020 RFP, including various technologies and contracting approaches. Upon receipt of Proposals, evaluation will begin immediately.

The evaluation of Proposals will progress in phases, as follows:

- Phase 1 – Initial Screening – Consisting of a completeness review, initial Bidder questions and clarifications, review of associated responses, and a comparative assessment of overall viability.
- Phase 2 – Establishment of a Proposal Shortlist – Following the initial screen, Proposals will be evaluated in more detail including considering PNM SME feedback, lifecycle financial analysis, total evaluated delivered cost and additional information based on Bidder clarifications and exceptions. The culmination of Phase 2 will be the establishment of a Proposal shortlist.
- Phase 3 – Shortlist Evaluation and Negotiations – The shortlisted Proposals will be subject to additional review and evaluation, portfolio modeling, and financial analysis. Additionally, resources will be evaluated utilizing a scoring matrix in order to identify advantageous solutions for PNM's customers. Based on the Phase 3 evaluation, negotiations may advance with one or more Bidders, leading to potential selection.

PNM and its consultants have established a number of processes and tools to support the evaluation of Proposals in a fair and transparent manner including, but not limited to, the following:

- A scoring matrix considering price and non-price factors for the evaluation of individual resources, as applicable;
- Validated portfolio models consistent with resource planning procedures;



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- Comparative assessment matrix and financial analysis tools;
- Clear roles and responsibilities and communications protocols for the 2020 RFP process; and
- A robust and impartial evaluation methodology focused on value for PNM customers.

The RFP administration and evaluation process will be conducted in compliance with New Mexico statutory and regulatory supply resource procurement requirements and guidelines, including compliance with NMSA 1978, Section 62-13-16 and the REA.

Selection of one or more Proposals is targeted by the end of 2020. The evaluation of Proposals will be completed based on the best available information at the time of the evaluation.

1 2020 REPLACEMENT GENERATION RFP

Public Service Company of New Mexico ("PNM") a wholly owned subsidiary of PNM Resources, Inc., issued a request for proposals ("RFP") entitled the PNM 2020 Replacement Generation RFP (the "2020 RFP") on June 25, 2020 for the supply of nominally 150 MW of accredited capacity resources to serve its New Mexico system (the "2020 RFP"). The exact quantity of resources selected will be dependent upon resource characteristics and resource modeling including PNM's most recent load and planning forecasts and is subject to New Mexico Public Regulation Commission ("Commission") approval.

Bidders are required to submit complete proposals (each a "Proposal") by September 23, 2020. The 2020 RFP was initially announced on June 18, 2020 via press release and Bidders were invited to complete a non-disclosure agreement and participate in a pre-bid conference held on July 14, 2020.

The 2020 RFP is focused on obtaining resource options that support PNM's transition to a zero-carbon energy future by 2040 while fulfilling PNM's obligation to serve its customers with reliable, low cost energy, in an environmentally responsible manner. No resource type or project ownership structure was specifically requested, preferred, or excluded by PNM in response to this RFP.

The 2020 RFP is structured as an all-source capacity solicitation considering various types of technologies and delivery structures. PNM anticipates evaluating Proposals for renewable, storage, thermal, and demand-side resources as well as combinations of each. Additionally, PNM expects to evaluate resources delivered under:

- Power purchase agreements ("PPAs");
- Energy storage agreements ("ESAs");
- Build-transfer ("BT") agreements;
- Asset purchase agreements ("APA");
- Engineer, procure, construct ("EPC") projects at PNM sites;
- Demand-side management ("DSM") products; and
- Other contracting structures conforming with the requirements of the 2020 RFP.

From the time the 2020 RFP was released leading up to the submittal of Proposals ("Proposal Development Cycle"), there has been a Bidder pre-bid web-based conference, a virtual EPC Bidder site overview, and Bidder questions and answers. Once Proposals are received, a phased evaluation will begin. The purpose of this report is to summarize the Proposal evaluation approach and methodology



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including roles and responsibilities, activities within each evaluation phase, and basis of evaluation tools and work products.

PNM retained Aion Energy LLC ("Aion") to serve as a consultant in support of the RFP administration and HDR Engineering, Inc. ("HDR") as a participant on the EPC Support Team as their Owner's engineer for the 2020 RFP process.

2 EVALUATION METHODOLOGY AND TIMING

Consistent with 2020 RFP Section 8, the evaluation of Proposals will progress in a phased approach, as follows:

- Phase 1 – Initial Screening of Proposals;
- Phase 2 – Detailed Review and Establishment of a Shortlist; and
- Phase 3 – Shortlist Negotiations and Selection.

The evaluation of Proposals will begin with a completeness review and development of a side-by-side Proposal comparison during Phase 1; advance to detailed assessment and review in Phase 2, including initial lifecycle cost modeling, in order to establish a Proposal shortlist; and finish with the shortlist evaluation including portfolio modeling, negotiations, and the potential selection of one or more Proposals in Phase 3.

The phased evaluation approach is structured to advance the evaluation in an efficient yet thorough manner. Throughout the process, PNM and its consultants are committed to conducting a fair, unbiased, and market-informed evaluation.

Additional detail regarding the phases of the Proposal evaluation is provided in Section 4.

Proposals are due on September 23, 2020 and the evaluation will begin immediately. PNM is targeting the completion of the 2020 RFP Proposal evaluation by the end of 2020 with negotiations (potential) extending into the first quarter of 2021. A 2020 RFP process overview schedule is included as Attachment A (subject to refinement by PNM).

3 ROLES, RESPONSIBILITIES, AND COMMUNICATIONS

Section 1.5 of the 2020 RFP provides an overview of the roles and responsibilities of 2020 RFP participants and RFP governance responsibilities. Additional detail specific to the Proposal Development Cycle and the evaluation of Proposals is provided in this Section.

3.1 ROLES AND RESPONSIBILITIES

The following entities will be involved during the Proposal Development Cycle and the evaluation of Proposals:

- The RFP Administration Team;
- EPC Support Team;
- Project Manager;

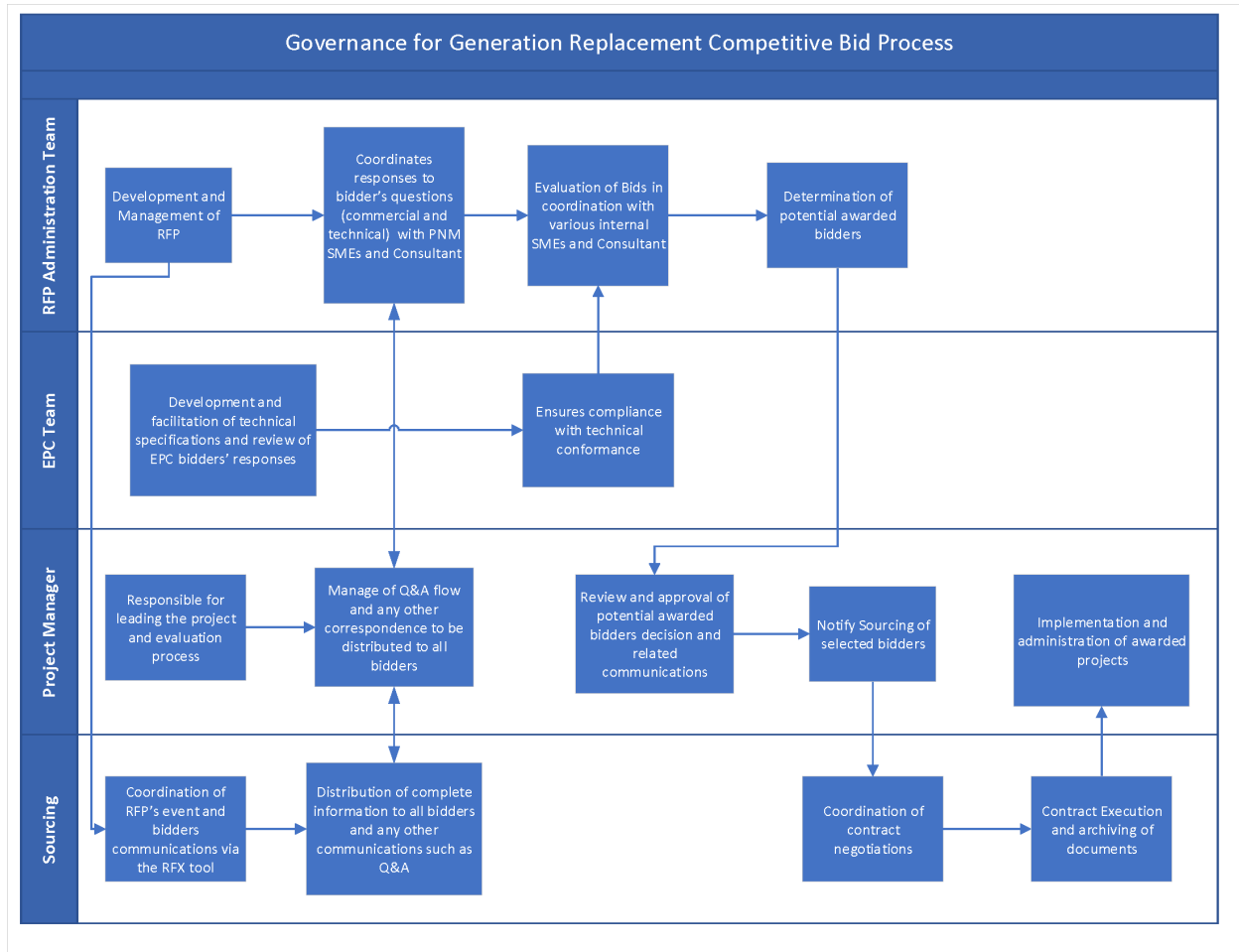




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- PNM subject matter experts (“SME’s”);
- PNM’s Supply Chain Sourcing Team; and
- Other supporting entities, as required.

A matrix outlining the roles and responsibilities for the RFP participants is as follows and as included in Section 1.5.7 of the RFP:



3.1.1 Role of the RFP Administration Team

The RFP Administration Team is responsible for administering the RFP process including development and release of the RFP, coordination during the Proposal Development Cycle, and the evaluation of Proposals (with support from the EPC Support Team, PNM SMEs, and other consultants). Aion Energy LLC is engaged as part of the RFP Administration Team and will provide Proposal conformance, market-based reviews, and price and scope conformance analysis throughout the process.

PNM’s Supply Chain Sourcing Team is the main point of contact for Bidders during the Proposal Development Cycle and the Proposal evaluation, and all correspondence is via PNM Sourcing’s public site accessed at:

<https://bids.sciquest.com/apps/Router/PublicEvent?CustomerOrg=PNMResources>



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The RFP Administration Team will archive process communications, archive Proposals, and complete summary reporting for each phase of the Proposal evaluation.

3.1.2 Role of the EPC Support Team

Throughout the RFP process, technical communications and coordination with Bidders submitting EPC Proposals will be managed separately from the RFP Administration Team. PNM has assigned an EPC Support Team to coordinate with and respond to Bidders offering EPC Proposals. The EPC Support Team consists of representatives from PNM's Generation Engineering Team along with their consultant, HDR Engineering, Inc. This team will be responsible for providing all existing site technical information, resolving EPC technical bid clarifications, technical review of EPC bids, and support of the bid evaluation process. The EPC Support Team will not be involved in or be aware of any non-EPC Bids received in response to the RFP process. As with the RFP Administration Team, PNM's Supply Chain Sourcing Team, will be the main point of contact for EPC Bidders.

3.1.3 Role of the Project Manager

PNM's Project Manager will be responsible for leading and directing the overall RFP process and managing the flow of communications amongst all participants in the RFP process. The Project Manager will review and approve the projects selected from the RFP process and ultimately be responsible for the implementation and administration of the awarded projects.

3.1.4 Role of PNM Staff

PNM SME's will provide input to the RFP Administration Team during the Proposal Development Cycle and throughout the evaluation of Proposals. PNM staff supporting the 2020 RFP process will include, but not be limited to the following:

- Generation;
- Wholesale Power Marketing;
- Environmental Services;
- Resource Planning;
- Electric Transmission Planning;
- Natural Gas Transmission;
- Legal and Sourcing;
- Tax, Insurance, Accounting, Financial Planning;
- Regulatory; and
- Business Technology.

Other PNM functions as well as additional outside consultants may support the 2020 RFP process, as required.

3.2 COMMUNICATIONS PROTOCOLS

PNM's Supply Chain Sourcing team will be the Bidders' point of contact for RFP communications during the Proposal Development Cycle and during the Proposal evaluation. Bidders have been directed to provide all communications through PNM's public sourcing site. All such incoming communications and all outgoing communications to the Bidders from the RFP Administrator will be via either the general RFP Event intended for market-based bids (e.g. PPA, ESA, BT, or APA) or the EPC Event within the public



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sourcing site. All communications will be directed to the RFP Administration Team and/or the EPC Support Team, as appropriate, and will be archived accordingly. The RFP Administration Team will coordinate with team participants, as directed by the Project Manager to provide responses to Bidder questions and clarifications, facilitate SME reviews, and establish a Proposal shortlist at the conclusion of Phase 2 of the Proposal evaluation.

4 SUMMARY OF PROPOSAL EVALUATION TOOLS

4.1 EVALUATION TOOLS

As noted, the evaluation of Proposals will progress in phases utilizing inputs from various PNM and external functions as well as various analysis tools throughout. This Section provides an overview of the various tools that will support the evaluation of Proposals. Each of the tools discussed in this section feeds into the evaluation.

4.1.1 Bid Comparison Template

A bid comparison template will be utilized to tabulate key Proposal parameters for all Proposals received. The bid comparison template will be utilized during the initial stages of the Proposal evaluation in order to identify any missing information, identify outlier Proposals, and to initially summarize Proposal price and non-price factors for the purposes of bid selection. The bid comparison template includes the following for each project, as applicable:

- Bidder and Proposal information including anonymous bidder identifier, project location, resource type, contracting structure, in-service date, term, etc.;
- Performance parameters including output, heat rate, round trip efficiency, assumed/anticipated capacity factor/dispatch, turndown capability, etc.;
- Proposal pricing including as-bid and evaluated capital costs, operating costs, PPA pricing, etc. including an evaluated first-year and levelized cost of generation estimate;
- Key proposal attributes and observations associated with commercial, development, and technical non-price evaluation factors including, but not limited to, the following:
 - Land acquisition/site control status;
 - Status of electrical interconnection and transmission service;
 - Fuel supply status, as applicable;
 - Environmental permitting status; and
 - Operational capability.
- Financial analysis assumptions including escalation rates, tax treatment, payment rates;
- Estimated operating costs and Owner's costs; and
- Price forecasts for fuel, electricity, consumables, and staffing.

The parameters that will be documented in the bid comparison template are included in Attachment B.

The proposed bid comparison template is focused on establishing an initial comparison of Proposals received, will be built-out as the evaluation progresses and will be used to inform ongoing evaluation activities.



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The financial and technical assumptions utilized in the bid comparison will be utilized throughout the evaluation of Proposals, with financial parameters as well as fuel and electric price forecasts based upon assumptions consistent with PNM's integrated resource planning efforts.

4.1.2 PNM SME Analysis

During the initial phases of the Proposal evaluation, the RFP Administration Team will solicit feedback from PNM SME's as identified in Section 3.1.4 regarding price and non-price evaluation criteria. Specifically, for price factors, feedback is anticipated to be provided for validation of proposed/estimated costs and implementation schedules of the following, as applicable:

- Electric transmission interconnection;
- Electric transmission network upgrades;
- Electric transmission wheeling fees and losses;
- Natural gas fuel supply interconnection;
- Natural gas fuel supply transmission service;
- Land acquisition; and
- Environmental permitting.

The engagement of SME's with detailed utility system knowledge across business functions is required to equalize Proposal considerations and promote a fair and comprehensive evaluation.

4.1.3 System Portfolio Modeling

PNM's system portfolio modeling will be utilized, primarily in Phase 3 of the bid evaluation process to estimate the value of individual resources as well as portfolios of resources. Modeling input templates will be populated from the data included in the bid comparison template and supplemented with additional, documented data, as needed. Input templates will include evaluated financial and performance parameters as required for the modeling.

The system portfolio modeling will be utilized to determine the most beneficial portfolio of resources that achieve the objectives of the RFP including low cost to customers (via a system net present value ("NPV") of costs analysis), system reliability (via a Loss of Load Event determination), accredited capacity, and transition to a zero carbon future.

The NPV results will account for the following, as applicable:

- Performance and capacity accreditation;
- Evaluated capital costs;
- Evaluated operating/PPA costs;
- PNM ratemaking revenue requirements including return on/of investment, taxes, and depreciation consistent with previous PNM filings; and
- Portfolio modeling results.

The output of the NPV model is an evaluated total NPV of system costs/revenues.

4.1.4 Shortlist Scoring Matrix

Proposals will be evaluated considering a weighted scoring matrix consisting of the following major scoring categories:





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- Commercial Conditions;
- Creditworthiness;
- Team Qualifications;
- Project Engineering;
- Social, Environmental & Siting; and
- Interconnection/Performance.

The shortlist of Proposals will be established based primarily on pricing factors associated with each Proposal, the overall viability of the Proposal with respect to its ability to achieve commercial operation by the required in-service date, and overall compliance with the objectives of NMSA 1978, Section 62-13-16, the REA, and the IRP Rule.

Once shortlisted, the Shortlist Scoring Matrix will be utilized to further refine and assess the full scope of price and non-price factors in accordance with identified weightings and factors. A separate matrix is presented for the market bid and for the EPC bid evaluations due to the slightly different project characteristics and considerations/risks. The Shortlist Scoring Matrices are outlined in Attachment C. These matrices, in conjunction with the results of system portfolio modeling will serve as the primary basis for final Proposal selections in Phase 3 of the process.

5 EVALUATION METHODOLOGY OVERVIEW

The bid evaluation process will require the implementation of methods to fairly and equally compare the Proposals in a number of areas. The following discussion provides an overview of how some of these factors will be considered and evaluated throughout the process.

5.1 TRANSMISSION SYSTEM ANALYSIS

An important element in the bid evaluation process is to consider the full costs to the customer for each new resource selection. Transmission interconnection and transmission service costs can be a significant contributor to this overall cost determination. Therefore, the review will involve a thorough assessment and consideration of the costs included in each proposal for electrical transmission interconnection, system network upgrades required to support the export of generated electricity from each site, transmission system losses, and any required wheeling fees. Information provided in each Bidder's proposal will be assessed and clarified via bid clarification requests.

After receipt of all available information supplied by the Bidders, PNM's Transmission Planning team will review the information submitted and provide an estimate of any required adjustments for interconnection costs, system upgrade costs, or wheeling fees as well as an estimation of the required timelines to implement these upgrades. These cost estimates will be based upon previous transmission studies or engineering estimates and will address costs for electrical interconnection as well as transmission line and transmission system upgrades required to maintain system reliability and contingency requirements as a result of the project being added into the system.



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5.2 FUEL SUPPLY / COST ANALYSIS

For the natural gas fueled proposals, the cost of delivered fuel will be based upon PNM's gas commodity forecasts utilized in the Integrated Resource Planning process. For specific sites and projects, adjustments for the specific sources of fuel and the infrastructure required to deliver the fuel to each applicable site will be incorporated. Estimates for this infrastructure will be developed from prior information received by PNM through past investigations by the PNM Wholesale Power Marketing department.

The first year, 2023 natural gas commodity pricing, excluding any required infrastructure upgrades, for representative project locations will be assumed as shown in Table 5.2-1. Pricing and infrastructure costs for additional sites and locations will be developed, as necessary, as a function of the bids received.

Table 5.2-1. First Year (2023) Fuel Commodity Price Assumptions

Site Location	Commodity Price (\$/MMBtu)
San Juan	\$2.59
Reeves, Rio Bravo, Rio Puerco	\$3.16
Valencia, La Luz	\$2.60
Afton, Luna, Lordburg	\$2.07

5.3 TOTAL DELIVERED COST METHODOLOGY

One of the primary evaluation criteria for the bids received in response to the RFP is the total delivered cost of electricity to PNM load within WECC Path 48. As such, the following defines the methodology and costs that will be considered in estimating the total delivered cost for each of the bids received under the RFP. For comparison purposes, a first year cost and 20 year levelized cost of delivered energy will be developed for each of the Proposals. These costs will be utilized for initial assessment and shortlisting with portfolio modeling subsequently used for determination of resource value.

More detail on the build-up of the total delivered cost is offered below.

5.3.1 Costs Considered

Throughout all of the bid evaluation phases, an assessment of the total delivered cost of energy will be initially developed and further refined. The total delivered cost will account for, but not be limited to:

- Project capital cost;
- New Mexico Gross Receipts Tax (for EPC, BT, and ESA options);
- Project fixed and variable operations and maintenance costs;
- Equipment start charges, as applicable;



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- Fuel supply to the project site;
- Required transmission interconnection costs;
- Required transmission system upgrade costs or wheeling fees to allow for delivery to PNM's system;
- Transmission system losses to PNM's system;
- PNM's Owner's costs for oversight and management of the contract; and
- Cost of charging energy storage devices from the grid (for stand-alone battery alternatives).

5.3.2 Capital Cost Assumptions

The capital costs utilized in the cost evaluation will generally be as provided by the respondents for the EPC and BT proposals. Through clarification questions and through ongoing assessment, adjustments to the quoted capital costs will be incorporated, as necessary, to account for the inclusion of New Mexico Gross Receipts Taxes, shortfalls or variations in project scope, as well as for transmission system and Owner's costs.

For PPA proposals, it will be clarified with all Bidders that the capital costs to develop and implement the project in question are included in the PPA pricing. For factors not included, such as transmission system upgrades and Owner's costs, these costs will be added into the economic evaluation and treated as a PNM cost that would be additive to the quoted PPA pricing. The recovery of these additive capital costs will be incorporated as a capacity payment and calculated utilizing PNM's economic revenue requirements methodology for the 20 year duration of the agreement.

5.3.3 Dispatch Assumptions

As a basis of initial evaluation, and as stated in the RFP Instructions to Bidders and technical specifications, the evaluated dispatch for each of the generation technologies will be as follows:

- Solar and Wind Renewables – dispatched as a function of the energy resource, unconstrained with annual generation forecast as provided by the respondent
- Energy Storage – modeled as one full charge/discharge cycle per day, or 365 full cycles per year
- Natural Gas Flexible Resources – modeled with 2,500 operating hours per year (28.5 percent capacity factor) and 400 starts per year

It is noted that the above dispatch assumptions will be utilized for the initial, economic evaluation of stand-alone generation resources. As the evaluation progresses into the more detailed system portfolio modeling, the dispatch and associated operation and maintenance costs will be refined to be consistent with the economic dispatch of the selected resources as modeled.



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5.3.4 Operations and Maintenance Cost Assumptions

To compare the cost of generation across PPA bids, EPC bids, and build-transfer bids, the bid evaluation team will develop representative annual operations and maintenance (O&M) costs. It is assumed that PPA bids will already include O&M costs in their contract price, but EPC and build-transfer bids will require the development of O&M costs because those projects would be constructed and then turned over to PNM. These O&M costs will be developed by the evaluation team as described below.

The O&M costs will be divided into fixed and variable O&M costs. The fixed O&M costs will be defined to include project staffing, fixed costs associated with any major equipment long term service agreement(s) (LTSA), battery capacity maintenance costs, project insurances, site maintenance costs, and other balance of plant fixed operating costs. The staffing estimates will be based upon traditional PNM staffing methodologies, considering the fact that there would be some level of remote operation of the EPC sites from existing PNM operations centers, and considering the fact that the addition of new units to existing PNM sites would be advantaged by the presence of existing operations staff at the project site.

Variable O&M costs are related to consumable and commodity costs determined as a function of the operating hours of the facility. Variable O&M costs are expected to include any applicable water consumption, waste water treatment costs, chemical consumption, ammonia consumption for NOx emissions control, and variable long term service agreement costs associated with operating hours or quantity of starts for the major equipment. For the purpose of the bid evaluation, the bid evaluation team will utilize variable O&M costs for natural gas fueled technologies from prior LTSA quotes, thus depending upon comparable and defensible quotations.

5.3.5 Transmission Costs

In addition to consideration of transmission system and interconnection capital costs, the bid evaluation will also consider transmission losses and wheeling fees associated with long-distance delivery alternatives or delivery via multiple transmission system providers. As an example, for projects located outside the counties directly surrounding Bernalillo County, a five (5) percent loss allowance will be considered to account for delivery to the Albuquerque load center. If not included in the Bidder's proposal, other appropriate allowances will be included, as appropriate, for significant generation tie line lengths and OATT standard loss allowances.

5.3.6 Owner's Cost Assumptions

To account for PNM's costs associated with the oversight and execution of a project, PNM's Owner's costs will be estimated and added to the capital cost values discussed above. The scope of Owner's costs will include the following for each type of project structure.



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Table 5.3-2. Owner's Cost Considerations

Owner's Cost	EPC	BT	PPA
Owner's Scope of Supply			
Information Technology / Telecom	X	X	X
Land Procurement	X		
Permitting and Environmental	X	X	X
Project Management and Operations	X	X	X
Owner's Engineering	X	X	X
Commissioning Costs			
Commissioning Fuel	X		
Test Energy Credit	X		
Startup Consumables	X		
Permanent Plant Equipment and Furnishings	X	X	
Long Term Service Agreement Mobilization	X	X	
Initial Stock of Spare Parts	X	X	
Administrative Costs			
Legal & Regulatory	X	X	X
Financial			
General & Administrative Costs	X	X	X
AFUDC	X		
Owner's Contingency	X	X	X

5.4 RENEWABLE GENERATION TAX CREDIT CONSIDERATIONS

Throughout the bid and bid evaluation process, the advantages of available federal tax credits for renewable energy investment will be considered. The applicability of the tax credits can be summarized as follows:



2020 Replacement Generation RFP

Table 5.4-1. Tax Credit Phase-out Summary

	Value of Tax Credit
Production Tax Credit (Wind)	
2016 Start of Construction	100% of Production Tax Credit Value
2017 Start of Construction	80% of PTC Value
2018 Start of Construction	60% of PTC Value
2019 Start of Construction	40% of PTC Value
2020 Start of Construction	60% of PTC Value (due to extension)
Investment Tax Credit (Solar and Solar + BESS)	
2016 to 2019 Start of Construction	30% of the system cost
2020 Start of Construction	26% of the system cost
2021 Start of Construction	22% of the system cost
2022 and Beyond Start of Construction	10% of the system cost

6 PROPOSAL EVALUATION PHASE OVERVIEW

The evaluation of Proposals is discussed in RFP Section 8. This Section provides additional detail regarding the evaluation of Proposals.

6.1 PHASE 1 EVALUATION – SCREENING

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 are incomplete after requesting additional information based on the RFP requirements and Proposals possessing significant feasibility or viability concerns as compared to similar Proposals. Reasons for elimination will be documented and Bidders will be notified accordingly at the end of Phase 1.



2020 Replacement Generation RFP

6.2 PHASE 2 EVALUATION – ESTABLISHMENT OF A PROPOSAL SHORTLIST

Proposals advancing from the Phase 1 evaluation will be evaluated further in Phase 2, resulting in the establishment of a shortlist of Proposals.

Additional Bidder questions and clarifications will be issued by the RFP Administration Team considering input and feedback from the EPC Support Team. The RFP Administration Team will solicit and coordinate evaluation input from PNM SME's, engaging different PNM functions, as required, for price and non-price factors. Pricing and schedule feedback and analysis will be provided by PNM SMEs, as required, to equally compare the Proposals received.

The lifecycle cost analysis performed during Phase 2 will be utilized in conjunction with the input and feedback from PNM SME's, the EPC Support Team, and the RFP Administration Team to establish a shortlist of Proposals. As noted in Section 4.1, the shortlist of Proposals will be established based primarily on total evaluated, delivered cost, the overall viability of the Proposal with respect to its ability to achieve commercial operation by the required in-service date, and overall compliance with the objectives of NMSA 1978, Section 62-13-16, the REA, and the IRP Rule. The initial ranking will also consider any major inconsistencies identified with non-price factors further identified in the Shortlist Scoring Matrices included in Attachment C.

The following objectives are initially established for the shortlist selection process, with the understanding that the ability to comply with these objectives will be a function of the types and quantity of bids received.

- 1) The shortlist should maintain the most favorable bids in each generation technology category including:
 - a. Solar generation in varying size categories
 - b. Wind generation in varying size categories
 - c. Combined wind and solar generation
 - d. Energy storage in varying size categories
 - e. Demand side management / energy efficiency solutions
 - f. Heavy frame combustion turbines
 - g. Aeroderivative combustion turbines
 - h. Reciprocating engines
 - i. Combined renewable (both solar and wind) and energy storage solutions
 - j. Combined natural gas and energy storage solutions
- 2) The shortlist should generally maintain offerings in each technology category with sufficient capacity to deliver the full requested accredited capacity. This allows the ability to subsequently perform more detailed system modeling with alternative generation portfolio mixes to investigate and identify the most favorable portfolio for PNM's customers going forward.
- 3) The shortlist should maintain optionality in the project implementation schedule and consideration of requirements associated with optimizing any available federal tax credits associated with renewable energy.



2020 Replacement Generation RFP

- 4) The shortlist should avoid including proposals that include any “fatal flaws” considering experience, development status, transmission system viability, and/or incomplete proposals.
- 5) The shortlist should retain offerings that optimize the total delivered cost of electricity.
- 6) The shortlist should retain proposals that allow the ability to maintain required system reliability.
- 7) Shortlisted offers should maintain the flexibility to incorporate and allow for future increased integration of renewable energy resources.

The Proposal shortlist is planned to retain sufficient quantities of each technology with redundancy of Proposals for contract negotiation and competitiveness purposes.

At the conclusion of Phase 2, Bidders will be notified accordingly regarding advancement to Phase 3 or no longer being considered.

6.3 PHASE 3 EVALUATION – SHORTLIST EVALUATION AND NEGOTIATIONS

During the Phase 3 evaluation, the shortlisted Proposals will be evaluated further, with additional Bidder questions and clarifications being issued, as required, and more in-depth PNM SME reviews taking place. Meetings will be held virtually or in-person with the shortlisted Bidders and evaluated costs will be validated through additional evaluation.

The applicable Shortlist Scoring Matrix will be completed for the shortlisted resources to identify those, by technology, that evaluate most favorably.

Considering the Proposal shortlist and the highest ranking Proposals, various portfolios will be developed and analyzed via PNM’s system portfolio modeling tools. As the resources selected from this RFP must be considered as a portfolio solution, the system portfolio modeling will be utilized to evaluate a number of new resource portfolios to determine the portfolio or portfolios that best satisfy the RFP objectives.

Following the completion of the scoring matrices and the portfolio modeling, PNM may enter into contract negotiations with one or more Bidders. PNM may also advance initial negotiations sooner than completion of the evaluation based on Proposals under consideration. PNM anticipates advancing multiple Proposals through some level of contract negotiations to maintain leverage and competitive forces.

At the conclusion of Phase 3, Bidders will be notified accordingly regarding potential selection or non-consideration.

6.4 REPORTING

A report will be developed for each phase of the Proposal Evaluation summarizing activities completed, Proposals received and currently in consideration, Bidder correspondence, any deviations from the established process, and general outcomes.



2020 Replacement Generation RFP

7 SUMMARY DISCUSSION

PNM's 2020 RFP seeks Proposals for nominally 150 MW of accredited capacity resources targeted to be in-service prior to June 1, 2023. The RFP was issued on June 25, 2020 and Proposals are due on September 23, 2020. Upon receipt of Proposals, evaluation will begin immediately. The RFP Administration Team will complete an initial screening and establish a Proposal shortlist during Phase 1 and Phase 2 of the bid evaluation process. Phase 3 of the evaluation, including detailed reviews, negotiations, and selections will be completed after selection of the shortlisted bids.

The Proposal evaluation includes review, analysis, modeling, comparative assessment, feedback from SME's, and other activities, with the overall goal to provide the most advantageous path forward to provide value to PNM customers and reduce reliability risk on PNM's system.

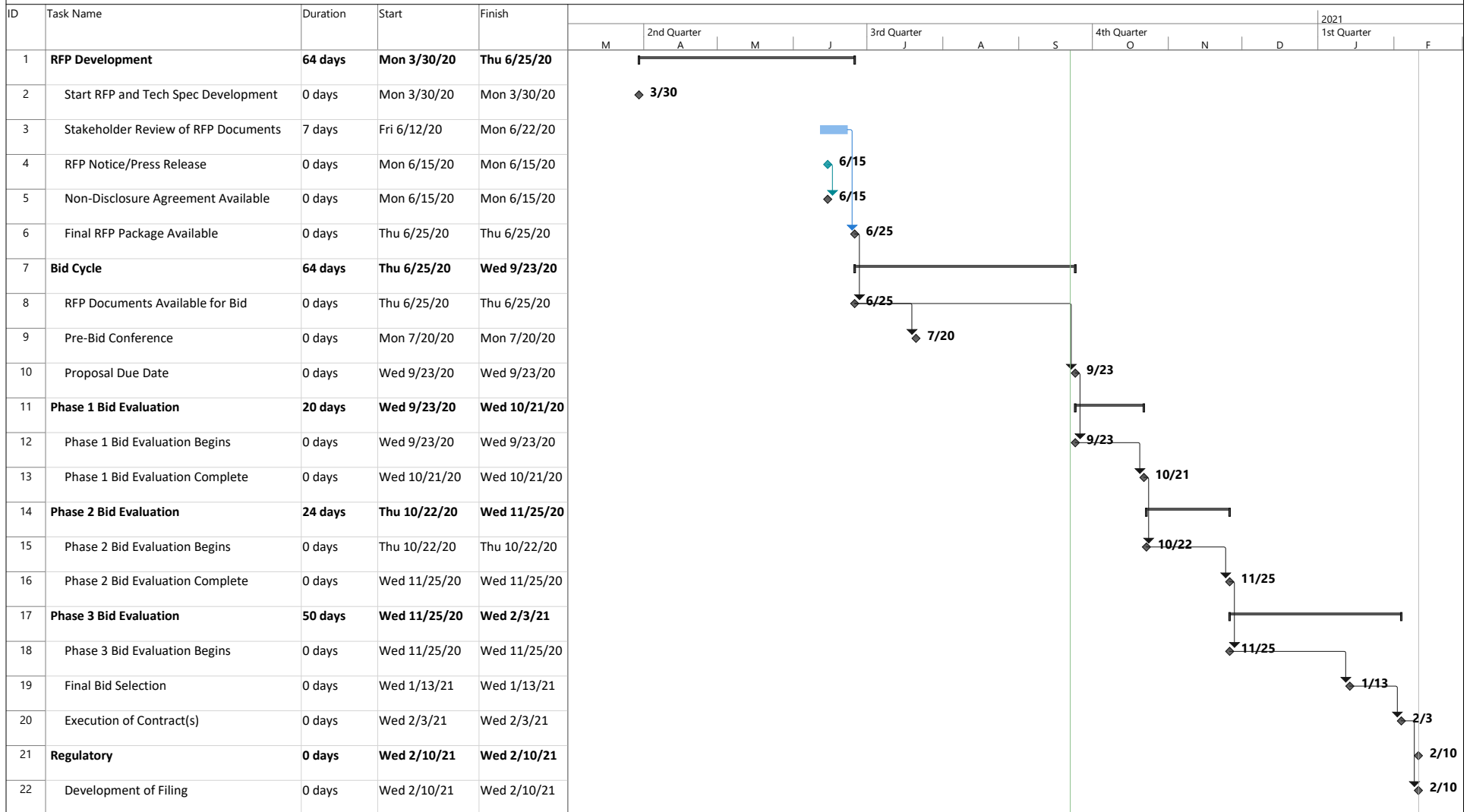
The evaluation will be completed based on the best available information and the approach and methodology is subject to change based on other influencing factors, such as changing regulatory requirements. PNM is committed to conducting a fair and transparent process, and the purpose of this document is to highlight PNM's commitment to doing so.

2020 Replacement Generation RFP

Proposal Evaluation Methodology

Attachment A

RFP Schedule

DRAFT**PNM 2020 Replacement Generation RFP**

2020 Replacement Generation RFP

Proposal Evaluation Methodology

Attachment B

Bid Comparison Template

Dated: September 23, 2020

Satisfy Construction License Requirement?	<u>Key Follow-Ups</u>
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2020 Replacement Generation RFP

Proposal Evaluation Methodology

Attachment C

Shortlist Ranking Matrix

MARKET BID SCORING MATRIX

Phase I Scoring Matrix		Bidders Name/Number	Bidder A	Bidder B	Bidder C
Commercial Conditions Creditworthiness Team Qualifications Project Engineering Social, Environmental & Siting Interconnection/Performance		Site Name	Project A	Project B	Project C
		Project Size (MW)			
		Resource Type			
		In-Service Date			
		Interconnection Location			
		Pricing Structure			
Total					
0%					

Total Bids Evaluated	0	Total Score (1000 Max)	0.0	0.0	0.0
----------------------	---	-------------------------------	------------	------------	------------

1.0 Commercial Conditions	Commercial Conditions Weighted Score	0	0	0
0				
1.1 Total Delivered Cost				
[80-100] In lowest quartile of pricing for the technology offering [70-90] In second to lowest quartile of pricing for the technology offering [60-80] In second to highest quartile of pricing for the technology offered [50-70] In highest quartile of pricing for the technology offering				
1.2 Guarantees / LDs / Warranties				
[75-100] All identified and in compliance with term sheet [50-85] Majority of factors identified and in compliance with term sheet [25-75] Moderate non-compliance with term sheet requests [0-50] Significant non-compliance with term sheet requests				
1.3 General Acceptance of Terms				
[75-100] No exceptions to proposed term sheet [50-85] Limited exceptions to proposed term sheet [25-75] Moderate exceptions to proposed term sheet [0-50] Major exceptions to proposed term sheet				

2.0 Creditworthiness	Creditworthiness Weighted Score	0	0	0
0				
2.1 Credit Support				
[80-100] Investment grade rated or letter of credit [70-90] Below investment grade/no rating with letter of credit [70-90] Parental Guarantee is Investment grade rated [25-70] Below investment grade or no rating, and no letter of credit/support [0-40] Junk rated/no support/history of default				
2.2 Project Financing				
[75-100] 100% Self-Financed, Owned, and Operated [50-85] Dvlpmt/Const Self-Funded, Equity Investor, Partial Ownership [25-75] Dvlpmt/Const Self-Funded, Flipped to New Owner/Investor [0-50] Financing not discussed				

MARKET BID SCORING MATRIX

Phase I Scoring Matrix		Bidder A	Bidder B	Bidder C
Commercial Conditions	Bidders Name/Number Site Name	Project A	Project B	Project C
3.0	Quals / Experience	0	0	0
Quals / Experience Weighted Score				
0				
3.1 Bidder Project Experience				
[75-100] Extensive - 3 or more comparable projects already built				
[50-85] Moderate - 1 to 2 comparable projects already built				
[25-60] Limited - never lead player; projects under construction				
[0-25] None - No projects completed or none explicitly identified				
3.2 Bidder Team Project Experience				
[75-100] Experienced team with prior working relationship; demonstrated ability				
[50-80] Team consists of a mix of experienced and new personnel				
[0-50] Team is newly formed w/ limited comparable project development				
(May need to adjust for local experience or lack thereof)				
3.3 Bidder Team Safety Record				
[75-100] Experience Modification Rate - 0.25 to 0.50				
[50-80] Experience Modification Rate - 0.50 to 0.75				
[20-60] Experience Modification Rate - 0.75 to 1.0				
[0-25] Experience Modification Rate - >1.0				
4.0	Project Engineering	0	0	0
Project Engineering Weighted Score				
0				
4.1 O&M Plan				
[75-100] Detailed, self-managed operation & maintenance plan, credible experience				
[40-80] Bid provided moderate details of an operation & maintenance plan				
[0-50] Little to no detail regarding an operation & maintenance plan, outsourced				
4.2 Engineering Design				
[60-100] Thorough system layout/design for selected tech - compliant w/ RFP				
[40-80] Concept level design / tech to be selected / moderately compliant w RFP				
[0-60] Prelim engineering design not done or incomplete / not compliant w RFP				
4.3 Project Schedule				
[75-100] Project meets timing, detailed timeline, schedule readily achievable				
[50-80] Meets timing reqmt's, timeline provided, no critical path items identified				
[25-60] Meets timing reqmt's, no details, moderate schedule challenges				
[0-40] Does not meet timing, no details, significant schedule challenges				
4.4 Project Equipment and Feasibility				
[60-100] Mature, Commercial Technology				
[30-80] Young Technology - Commercial, but Limited Application				
[0-50] New Technology - demonstration, prototype or pilot				
(performance guarantees or risk mitigation might compensate)				

MARKET BID SCORING MATRIX

Phase I Scoring Matrix		Bidder A	Bidder B	Bidder C
Commercial Conditions	Bidders Name/Number Site Name	Project A	Project B	Project C
5.0 Social, Environmental & Siting	ial, Environmental & Siting Weighted Score	0	0	0
5.1 Right of Way and Site Acquisition				
[80-100] All of Site and Right-of-Way is secured, site acquired, cost certain				
[50-80] Right-of-Way is secured, site is acquired, cost estimated				
[0-30] Right-of-Way not yet secured & project site not yet acquired				
5.2 Environmental Site Assessment				
[60-100] Site assessment completed w/documentation-no issues				
[30-70] Site Assessment completed, no siting issues, lacks documentation				
[0-50] Site Assessment not completed				
5.3 Enviromental Permits / Impact				
[70-100] All required permits acquired / no-to-low environmental impact				
[40-70] Some permits acquired / moderate environmental impact				
[0-40] Bidder states no permits acquired / high environmental impact				
5.4 Community Support/Labor Sourcing				
[80-100] Strong community support / significant apprentice & NM labor use				
[50-80] Moderate community support & NM labor / complies with apprentice use				
[30-60] Little community support / partially complies w apprentice & NM labor use				
[0-40] Viewed unfavorably by community / does not comply w apprentice use				
6.0 Interconnection/Performance	erconnection/Performance Weighted Score	0	0	0
6.1 Interconnection				
[90-100] Project has LGIA / no network upgrades / limited interconnection scope				
[60-100] Project in DISIS process / limited network upgrades / limited interconn				
[30-70] Project will enter DISIS process / moderate network & interconn scope				
[0-50] Project has not entered DISIS / no estimate of required upgrades				
6.2 Transmission Delivery				
[90-100] Project does not require delivery investment (i.e. connects to PNM)				
[20-90] Project identifies delivery need (wheeling service, new construction)				
[0-30] Project requires delivery; plan not established (wheeling, etc.)				
6.3 Contribution to Operational Flexibility				
[90-100] Project is dispatchable w/ strong capability for ancillary services				
[70-100] Project is dispatchable w/ moderate capability for ancillary services				
[30-70] Project has moderate dispatchability / capability for ancillary services				
[0-30] Project offers little value for dispatch/ancillary services				
6.4 Performance Feasibility & Bid Credibility				
[80-100] Projected capacity factor / efficiency is within expected ranges (below)				
[50-80] Projected capacity factor w/in 1%-2% of expected ranges				
[30-80] Projected capacity factor w/in 3%-4% of expected ranges				
[0-20] Projected capacity factor is greater than +/- 5% of expected				

EPC SCORING MATRIX

Phase I Scoring Matrix		Bidder A	Bidder B	Bidder C
Commercial Conditions Creditworthiness Team Qualifications Project Engineering Social, Environmental & Siting Interconnection/Performance	Bidders Name/Number	Project A	Project B	Project C
	Site Name			
	Project Size (MW)			
	Resource Type			
	In-Service Date			
Total	Interconnection Location			
	Pricing Structure			
	Bidder Long-Name			

Total Bids Evaluated	0	Total Score (1000 Max)	0.0	0.0	0.0
----------------------	---	-------------------------------	------------	------------	------------

1.0 Commercial Conditions	Commercial Conditions Weighted Score	0	0	0
	0			
1.1 Total Delivered Cost				
[80-100] In lowest quartile of pricing for the technology offering				
[70-90] In second to lowest quartile of pricing for the technology offering				
[60-80] In second to highest quartile of pricing for the technology offered				
[50-70] In highest quartile of pricing for the technology offering				
1.2 Guarantees / LDs / Warranties				
[75-100] All identified and in compliance with term sheet				
[50-85] Majority of factors identified and in compliance with term sheet				
[25-75] Moderate non-compliance with term sheet requests				
[0-50] Significant non-compliance with term sheet requests				
1.3 General Acceptance of Terms				
[75-100] No exceptions to proposed term sheet				
[50-85] Limited exceptions to proposed term sheet				
[25-75] Moderate exceptions to proposed term sheet				
[0-50] Major exceptions to proposed term sheet				

2.0 Creditworthiness	Creditworthiness Weighted Score	0	0	0
	0			
2.1 Financial Strength				
[80-100] Investment grade rated or letter of credit				
[70-90] Below investment grade/no rating with letter of credit				
[70-90] Parental Guarantee is Investment grade rated				
[25-70] Below investment grade or no rating, and no letter of credit/support				
[0-40] Junk rated/no support/history of default				
2.2 Project Controls				
[80-100] Detailed cost estimate / clear & reasonable payment / cancel schedule				
[70-90] Moderately detailed cost estimate / payment / cancel schedule				
[35-70] Insufficient cost estimate / unreasonable payment / cancel schedule				
[0-35] No detailed cost estimate / unfavorable payment / cancel schedules				

EPC SCORING MATRIX

Phase I Scoring Matrix		Bidder A	Bidder B	Bidder C
Commercial Conditions	Bidders Name/Number Site Name	Project A	Project B	Project C
3.0	Quals / Experience	0	0	0
Quals / Experience Weighted Score				
0				
3.1 Bidder Project Experience				
[75-100] Extensive - 3 or more comparable projects already built				
[50-85] Moderate - 1 to 2 comparable projects already built				
[25-60] Limited - never lead player; projects under construction				
[0-25] None - No projects completed or none explicitly identified				
3.2 Bidder Team Project Experience				
[75-100] Experienced team with prior working relationship; demonstrated ability				
[50-80] Team consists of a mix of experienced and new personnel				
[0-50] Team is newly formed w/ limited comparable project development				
(May need to adjust for local experience or lack thereof)				
3.3 Bidder Team Safety Record				
[75-100] Experience Modification Rate - 0.25 to 0.50				
[50-80] Experience Modification Rate - 0.50 to 0.75				
[20-60] Experience Modification Rate - 0.75 to 1.0				
[0-25] Experience Modification Rate - >1.0				
4.0	Project Engineering	0	0	0
Project Engineering Weighted Score				
0				
4.1 Constr. And Comiss Turnover Plan				
[75-100] Detailed, construction & commissioning plan, credible experience				
[40-80] Bid provided moderate details of a construction & commissioning plan				
[0-50] Little to no detail regarding a const & commiss plan, heavily subcontracted				
4.2 Engineering Design				
[60-100] Thorough system layout/design for selected tech - compliant w/ RFP				
[40-80] Concept level design / tech to be selected / moderately compliant w RFP				
[0-60] Prelim engineering design not done or incomplete / not compliant w RFP				
4.3 Project Schedule				
[75-100] Project meets timing, detailed timeline, schedule readily achievable				
[50-80] Meets timing reqmt's, timeline provided, no critical path items identified				
[25-60] Meets timing reqmt's, no details, moderate schedule challenges				
[0-40] Does not meet timing, no details, significant schedule challenges				
4.4 Project Equipment and Feasibility				
[60-100] Mature, Commercial Technology				
[30-80] Young Technology - Commercial, but Limited Application				
[0-50] New Technology - demonstration, prototype or pilot				
(performance guarantees or risk mitigation might compensate)				

EPC SCORING MATRIX

Phase I Scoring Matrix		Bidder A	Bidder B	Bidder C
Commercial Conditions	Bidders Name/Number Site Name	Project A	Project B	Project C
5.0 Social, Environmental & Siting	ial, Environmental & Siting Weighted Score	0	0	0
5.1 Right of Way and Site Acquisition				
[80-100] All of Site and Right-of-Way is secured, site acquired, cost certain				
[50-80] Right-of-Way is secured, site is acquired, cost estimated				
[0-30] Right-of-Way not yet secured & project site not yet acquired				
5.2 Environmental Site Assessment				
[60-100] Site assessment completed w/documentation-no issues				
[30-70] Site Assessment completed, no siting issues, lacks documentation				
[0-50] Site Assessment not completed				
5.3 Enviromental Permits / Impact				
[70-100] All required permits acquired / no-to-low environmental impact				
[40-70] Some permits acquired / moderate environmental impact				
[0-40] Bidder states no permits acquired / high environmental impact				
5.4 Community Support/Labor Sourcing				
[80-100] Strong community support / significant apprentice & NM labor use				
[50-80] Moderate community support & NM labor / complies with apprentice use				
[30-60] Little community support / partially complies w apprentice & NM labor use				
[0-40] Viewed unfavorably by community / does not comply w apprentice use				
6.0 Interconnection/Performance	erconnection/Performance Weighted Score	0	0	0
6.1 Interconnection				
[90-100] Project has LGIA / no network upgrades / limited interconnection scope				
[60-100] Project in DISIS process / limited network upgrades / limited interconn				
[30-70] Project will enter DISIS process / moderate network & interconn scope				
[0-50] Project has not entered DISIS / no estimate of required upgrades				
6.2 Transmission Delivery				
[90-100] Project does not require delivery investment (i.e. connects to PNM)				
[20-90] Project identifies delivery need (wheeling service, new construction)				
[0-30] Project requires delivery; plan not established (wheeling, etc.)				
6.3 Contribution to Operational Flexibility				
[90-100] Project is dispatchable w/ strong capability for ancillary services				
[70-100] Project is dispatchable w/ moderate capability for ancillary services				
[30-70] Project has moderate dispatchability / capability for ancillary services				
[0-30] Project offers little value for dispatch/ancillary services				
6.4 Performance Feasibility & Bid Credibility				
[80-100] Projected capacity factor / efficiency is within expected ranges (below)				
[50-80] Projected capacity factor w/in 1%-2% of expected ranges				
[30-80] Projected capacity factor w/in 3%-4% of expected ranges				
[0-20] Projected capacity factor is greater than +/- 5% of expected				

Phase 1 Bid Evaluation Summary

PNM Exhibit RWN-6

Is contained in the following 6 pages.



2020 Replacement Generation RFP

Phase 1 Bid Evaluation Summary

Revision A

Initial Issue: October 20, 2020

Revision B

Issued: January 19, 2021



2020 Replacement Generation RFP

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3 PHASE 1 EVALUATION - SCREENING 5



2020 Replacement Generation RFP

1 INTRODUCTION

Public Service Company of New Mexico (“PNM”) a wholly owned subsidiary of PNM Resources, Inc., issued its 2020 Replacement Generation Request for Proposals (the “2020 RFP”) on June 25, 2020 for the supply of nominally 150 MW of accredited capacity resources to serve its New Mexico system (the “2020 RFP”). The exact quantity of resources selected will be dependent upon resource characteristics and resource modeling, including PNM’s most recent load and planning forecasts, and is subject to New Mexico Public Regulation Commission (“Commission”) approval.

The 2020 RFP is focused on securing resources that support PNM’s transition to a zero-carbon energy future by 2040 while fulfilling PNM’s obligation to serve its customers with reliable, low cost energy, in an environmentally responsible manner. No resource type or project ownership structure was specifically requested, preferred, or excluded by PNM in response to the 2020 RFP.

The 2020 RFP is structured as an all-source capacity solicitation considering various types of technologies and delivery structures. PNM has received and is evaluating proposals (“Proposals”) for renewable, storage, and thermal resources as well as combinations of each from participating bidders (each a “Bidder”). Additionally, PNM has received and is evaluating resources delivered under the following structures:

- Power purchase agreements (“PPAs”);
- Energy storage agreements (“ESAs”);
- Build-transfer (“BT”) agreements; and
- Engineer, procure, construct (“EPC”) projects at PNM sites.

This summary report provides an overview of Proposals received and the results of the Phase 1 evaluation of these Proposals.

2 SUMMARY OF PROPOSALS

In response to the RFP, PNM received Proposals from 30 different companies offering Proposals from 42 different projects. For these 42 projects, Bidders offered numerous pricing structures, contracting structures, and capacities, resulting in 205 different project variants for evaluation. Table 2-1 provides a high-level summary of the types of Proposals received.



2020 Replacement Generation RFP

Table 2-1. Summary of Proposals Received.

Technology	Contracting Structure					Proposals	Generation Capacity	Storage Capacity
	PPA	ESA	BT	EPC	Other	Quantity	MW	MWh
Wind	2	-	-	-	-	2	360	-
Solar	42	-	3	-	-	45	4,846	-
ESS	0	63	2	4	2	71	-	21,650
Wind + Solar	2	-	-	-	-	2	488	-
Wind + ESS	4	-	-	-	-	4	720	512
Solar + ESS	57	-	-	1	-	58	6,269	8,082
Wind + Solar + ESS	4	-	-	-	-	4	976	512
DSM	-	-	-	-	-	-	-	-
Gas - SC	2	-	-	4	1	7	752	-
Gas - NGCC	2	-	-	-	-	2	124	20
Gas - RICE	1	-	-	-	-	1	108	-
Coal	6	-	-	-	-	6	500	-
Other	1	-	1	-	1	3	46	40
Total	123	63	6	9	4	205	15,189	30,816

While Table 2-1 provides a summary of the total generation and storage available from all of the project variants offered, Table 2-2 provides a summary of the total capacities offered by technology considering the maximum capacity offered from each project site.

Table 2-2. Total Resource Capacity Proposed by Technology.

Technology	Generation Capacity	Storage Capacity
	MW	MWh
Wind	180	-
Solar	3,328	-
ESS	1,990	7,689
DSM	-	-
Gas - Simple Cycle CT	595	-
Gas - NGCC	62	-
Gas - RICE	108	-
Coal	125	-
Other	46	40
Total	6,434	7,729



2020 Replacement Generation RFP

3 PHASE 1 EVALUATION - SCREENING

The Phase 1 evaluation efforts were focused on screening the submitted Proposals for completeness and compliance with RFP requirements. The Phase 1 evaluation was initiated upon receipt of the Proposals on September 23, 2020 and is completed as of the date of this report on October 20, 2020. One round of clarification questions was issued to all but two of the Bidders on October 2, 2020; one of these Bidders indicated that they were withdrawing from the RFP process and the other had not yet submitted their Bid Fee. The questions were subsequently issued to the latter noted Bidder on October 8, 2020 to avoid any potential process delays should the Bidder subsequently submit their Bid Fee. Of the questions issued, as of the time of this report writing, responses were received from all but the one bidder who has not yet submitted their Bid Fee.

As part of the Phase 1 evaluation process, the RFP Administration team completed a first draft of the bid comparison template including as-provided information from the Bidders. This confidential preliminary bid comparison document has been documented for record purposes as "PNM 2020 RFP Bid Summary Document (20201020).xlsx". At this phase of the Proposal evaluation process, the bid comparison template is considered very preliminary, indicative in nature, and subject to change as a function of ongoing clarification and evaluation considerations.

Considering the initial review of Proposals and information provided in response to Bidder clarifications, the RFP Administration Team, with the Project Manager's approval, has decided to eliminate the following Proposals from further consideration based on the factors as noted for each Proposal. Elimination during Phase 1 is limited to Proposals that have been withdrawn by the Bidder, have not complied with the RFP requirements and/or do not have the necessary New Mexico Contractor's license (for build-transfer or EPC project structures) as required and identified in the 2020 RFP documents.

The Proposals determined to be excluded from further consideration after the Phase 1 Proposal evaluation are as follows:

- **Bidder #77** – *San Juan Generating Station conversion to Hydrogen Fuel*: Bidder withdrew from the RFP process
- **Bidder #62** – Non-compliant Proposal as Bidder submitted a budgetary Proposal for engineering studies, design and construction management services related to electrical interconnection of facilities
- **Bidder #60** – *EPC Proposal for San Juan Solar Project*: Bidder does not have the necessary New Mexico Contractor's License
- **Bidder #89** – *Build-Transfer Proposal for Green Energy Complex*: Bidder does not have the necessary New Mexico Contractor's License
- **Bidder #72** – *Build-Transfer Proposal for Solar Project*: Bidder does not have the necessary New Mexico Contractor's License
- **Bidder #70** – *PPA for Reeves CC EGT*: Incomplete Proposal and non-compliant Proposal as Bidder is proposing a PPA on the site of the existing Reeves Generating Station



2020 Replacement Generation RFP

- **Bidder #76** – *Equipment Supply Proposals for Energy Storage and Simple Cycle Gas Turbine*: Incomplete and non-compliant Proposal as Bidder only proposed equipment supply and not a resource that could be evaluated under the RFP structure
- **Bidder #99** – *Build-Transfer Proposal for Solar Project*: Non-responsive. Bidder did not submit bid fee or respond to the first round of clarification questions.

It should be clear that other Proposals offered by any of these Bidders will remain under consideration through Phase 2 of the Proposal evaluation process, as applicable.

Upon removal of these Proposals, the RFP process will continue to evaluate 193 project variants from 25 Bidders and 34 projects.

Phase 2 Bid Evaluation Summary

PNM Exhibit RWN-7

Is contained in the following 11 pages.



2020 Replacement Generation RFP

Phase 2 Bid Evaluation Summary

Revision A - Draft

January 19, 2021

Revision B – Final

March 26, 2021



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2020 Replacement Generation RFP

1 INTRODUCTION

Public Service Company of New Mexico (“PNM”) a wholly owned subsidiary of PNM Resources, Inc., issued its 2020 Replacement Generation Request for Proposals (the “2020 RFP”) on June 25, 2020 for the supply of nominally 150 MW of accredited capacity resources to serve its New Mexico system. The exact quantity of resources selected will be dependent upon resource characteristics and resource modeling, including PNM’s most recent load and planning forecasts, and is subject to New Mexico Public Regulation Commission (“Commission”) approval.

The 2020 RFP is focused on securing resources that support PNM’s transition to a zero-carbon energy future by 2040 while fulfilling PNM’s obligation to serve its customers with reliable, low cost energy, in an environmentally responsible manner. No resource type or project ownership structure was specifically requested, preferred, or excluded by PNM in response to the 2020 RFP.

The 2020 RFP is structured as an all-source capacity solicitation considering various types of technologies and delivery structures. PNM has received and is evaluating proposals (“Proposals”) for renewable, storage, and thermal resources as well as combinations of each from participating bidders (each a “Bidder”).

This summary report is a follow-up to, and continuation of, the Proposal Evaluation Methodology document initially issued on September 23, 2020 and the Phase 1 Bid Evaluation Summary initially issued on October 20, 2020 and provides an overview of the Phase 2 evaluation process as well as the shortlist of proposals selected as a result of the Phase 2 evaluation. The Phase 2 evaluation was completed in accordance with the Proposal Evaluation Methodology document.

2 SUMMARY OF PHASE 2 BIDS

As noted in the Phase 1 Bid Evaluation Summary document, 193 project variants from 25 Bidders and 34 projects were carried into the Phase 2 bid evaluation process. Those proposals are summarized in Tables 2-1 and 2-2.

As a follow-up to the completion of the Phase 1 evaluation, further clarification with one of the Bidders resulted in disqualification of the two build-transfer (BT) energy storage system (ESS) bids identified in Table 2-1 as the Bidder did not hold the appropriate contractor’s license. As such, the resultant bids carried into the Phase 2 evaluation were either of a power purchase agreement (PPA), energy storage agreement (ESA), or engineer-procure-construct (EPC) contracting structure.



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Table 2-1. Summary of Proposals Evaluated in Phase 2.

Technology	Contracting Structure					Proposals	Generation Capacity	Storage Capacity
	PPA	ESA	BT	EPC	Other	Quantity	MW	MWh
Wind	2	-	-	-	-	2	360	-
Solar	42	-	-	-	-	42	4,146	-
ESS	-	63	2	4	-	69	-	20,650
Wind + Solar	2	-	-	-	-	2	488	-
Wind + ESS	4	-	-	-	-	4	720	512
Solar + ESS	57	-	-	-	-	57	6,239	8,022
Wind + Solar + ESS	4	-	-	-	-	4	976	512
DSM	-	-	-	-	-	-	-	-
Gas - SC	2	-	-	4	-	6	673	-
Gas - NGCC	-	-	-	-	-	-	-	-
Gas - RICE	1	-	-	-	-	1	108	-
Coal	6	-	-	-	-	6	500	-
Other	-	-	-	-	-	-	-	-
Total	120	63	2	8	0	193	14,210	29,696

While Table 2-1 provides a summary of the total generation and storage available from all of the project variants that passed the Phase 1 evaluation, Table 2-2 provides a summary of the total capacities available by technology considering the maximum capacity offered from each project site.

Table 2-2. Total Resource Capacity Proposed by Technology.

Technology	Generation Capacity	Storage Capacity
	MW	MWh
Wind	180	-
Solar	3,298	-
ESS	1,725	6,629
DSM	-	-
Gas - Simple Cycle CT	516	-
Gas - NGCC	-	-
Gas - RICE	108	-
Coal	125	-
Other	-	-
Total	5,952	6,629



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3 PHASE 2 EVALUATION

The Phase 2 evaluation efforts were focused on evaluating the available proposals and narrowing the proposals to a shortlist based on total evaluated, delivered cost, the overall viability of Proposals with respect to their ability to achieve commercial operation by the targeted in-service date, and overall compliance with the objectives of NMSA 1978, Section 62-13-16, the REA, and the IRP Rule.

The Phase 2 evaluation spanned the time from October 20, 2020 through November 10, 2020 during which time a second round of clarification questions was issued to the Bidders on October 23, 2020 and further evaluation and development of the bid comparison template was completed.

As part of the Phase 2 evaluation process, the RFP Administration team further developed the bid comparison template as well as the financial evaluation of the projects. The confidential bid comparison document established as of the time of the selection of the Phase 2 shortlist has been documented for record purposes as "PNM 2020 RFP Bid Summary Document (20201110).xlsx". Further development of the bid comparison template will be completed as a result of shortlist Bidder meetings and ongoing clarifications through the Phase 3 evaluation.

3.1 PHASE 2 FINANCIAL EVALUATION

The Phase 2 evaluation relied heavily on the bid comparison template and the financial analysis incorporated into the tool. The financial analysis was structured to establish both a levelized total cost of delivered energy as well as a levelized total cost of accredited capacity for each proposal. The costs considered were consistent with those outlined in the Proposal Evaluation Methodology document and were as more fully described below.

3.1.1 Project Capital Costs

Levelized capital recovery costs were established for each project and accounted for the capital costs to develop and construct the projects. For EPC projects, the capital costs were provided by the Bidders and validated or adjusted by the EPC Support Team to account for any gaps in the quoted pricing. The majority of capital costs associated with PPA and ESA proposals were accounted for in the Bidders' proposed pricing.

Additional capital costs incorporated into the total levelized cost evaluation included PNM's costs (Owner's Costs) to oversee and manage the implementation of the proposed projects. Estimates of these Owner's Costs incorporated input from PNM's subject matter experts regarding appropriate values for permitting, development, administration, oversight, interest during construction, and contingency as applicable to each commercial structure. Other capital costs included electrical transmission interconnection and network upgrade costs to allow for delivery of the energy from each proposed project to PNM's system (and from PNM's system in the case of an energy storage project). Appropriate accounting for New Mexico Gross Receipts Taxes was also reviewed with all Bidders to confirm that the appropriate costs were accounted for in the total evaluated cost. Any additional costs not included in the Bidders' proposals were added into the financial evaluation as a capital cost for PNM.



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An annual levelized capital recovery cost was developed for each project for recovery of these costs in accordance with PNM's economic revenue requirements methodology for a 20 year evaluation term. The capital recovery cost for each project included property taxes applicable to the county in which the project resided. Sensitivities on the levelized capital recovery cost were performed for natural gas fired projects for a shorter, 17 year life, to assess the implications of retirement of these projects prior to 2040 to comply with PNM's zero-carbon emissions goals.

3.1.2 Electrical Transmission / Interconnection Costs

Each Bidder was requested to identify the expected costs for electrical interconnection to PNM's system as well as any required network upgrades to allow for transmission of the energy from the project (and to the project in the case of an energy storage project). As several Bidders had not yet submitted an interconnection application or were still awaiting feedback from the interconnection studies, the PNM Transmission Planning team reviewed the information submitted with the proposals and provided further insights and input to the capital costs expected to interconnect or deliver energy from the proposed projects. These estimated costs were incorporated into the financial evaluation.

In some instances, due to regional or project specific transmission system limitations, projects were evaluated with a potential range of system upgrade costs. One of these instances involved the nominally 114 MW of firm transmission capacity made available from the San Juan/Four Corners area by the Palo Verde lease abandonment. For the purposes of the Phase 2 shortlist selection, this factor was considered, but projects in the Four Corners area exceeding this value were retained in the shortlist for further assessment in Phase 3 and additional projects were identified in the case that these projects could not cost-effectively, or in a timely manner, deliver energy to PNM's system. Similarly, other projects, subject to a potential range of network upgrade costs were evaluated at the high and low end of the range and, if competitive at the low end, were also retained for more in-depth assessment of the associated costs and implementation schedule in Phase 3.

For projects requiring the services of a third-party transmission provider to deliver energy to PNM's system, either wheeling fees as quoted by the Bidder and verified by PNM's Transmission Planning team were incorporated, or in the case that wheeling fees were not quoted, wheeling fees were determined in accordance with the Open Access Transmission Tariff and were incorporated into the calculated levelized costs.

Additionally, for projects at a distance from the Albuquerque load center, a transmission line loss of 5.04 percent was considered. This loss allowance was considered for projects in San Juan, Otero, Rio Arriba, and Union counties.

3.1.3 Project Operations and Maintenance Costs

Project operations and maintenance (O&M) costs for all PPA and ESA proposals were assumed to be fully included in the Bidders' proposals. For the EPC proposals, the EPC Support Team provided an estimate of operations and maintenance costs and such were incorporated into the bid comparison tool and the financial analysis. For the energy storage projects, these EPC O&M costs accounted for capacity maintenance agreement costs over a 20 year life as proposed by the Bidder, as well as regular predictive and preventative maintenance, repair, and replacement activities, including staff as appropriate. For the shortlisted EPC natural gas projects, these O&M costs included estimated long-term service



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agreement costs as proposed by the Bidder, staffing, consumables, parts replacement, balance of plant equipment maintenance and repair, as well as permitting, general administrative costs and insurance.

Where identified in the Bidders' proposals, charges per start of the equipment were also included in the financial evaluation.

3.1.4 Fuel Supply Costs

For the natural gas fueled proposals, the cost of delivered fuel accounted for the specific sources of fuel and the infrastructure required to deliver the fuel to each applicable site. As a basis of natural gas commodity pricing, the evaluation utilized PNM's 2021 Integrated Resource Plan (IRP) gas commodity forecasts with first year costs as identified in the Proposal Evaluation Methodology document.

In addition to the commodity pricing, the evaluation included a firm transport cost which accounted for any required capital recovery component associated with the installation of any infrastructure required to deliver the gas to the noted site. Estimates for the firm transport cost were developed from prior quotes that PNM had received as well as from past investigations by the PNM Wholesale Power Marketing department.

While some proposals did discuss alternative fuel sources such as coal mine methane and hydrogen, insufficient data was provided to thoroughly assess the utilization of these alternative fuels at the time of shortlisting.

3.1.5 Energy Storage Charging Costs

For the Phase 2 evaluation, an annual average off-peak value at the Palo Verde node was used as the cost of energy storage charging for initial comparison. As the evaluation moves into Phase 3, actual charging costs at the time of charging will be incorporated through the completion of portfolio system modeling.

3.1.6 Dispatch Assumptions

Dispatch assumptions utilized for the evaluation were consistent with the Proposal Evaluation Methodology document. However, in the situation that a Bidder offered a quantity of annual energy storage system cycles per year that differed from the 365 cycles per year indicated, additional sensitivities were performed to evaluate any associated benefits of pricing associated with a varying quantity of battery cycles. Further assessment of expected battery cycling within PNM's system will be performed during the Phase 3 evaluation.

3.2 PROJECT SCHEDULE

Through the bid clarification questions, PNM requested that all Bidders confirm that their proposal was valid through June 30, 2022 and that they could achieve the targeted in-service date of June 1, 2023 if they received a full notice to proceed and the project received Commission approval as late as March 31, 2022. Most Bidders confirmed compliance with this timeline while a few expressed concern or established an earlier deadline for approval and release.

In addition to Bidders' input on ability to achieve the proposed schedule, the PNM Transmission Planning team also evaluated the necessary timelines for development and construction of any necessary interconnection facilities or transmission network upgrades to deliver energy from the



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project. This analysis was based on both the Bidders' status in PNM's interconnection queue as well as the estimated magnitude of upgrades required to support the project.

In selection of bids for the Phase 2 shortlist, no projects were excluded solely on the basis of schedule. Some projects facing schedule challenges were carried into the shortlist such that the risks associated with each could be more fully understood and evaluated through further discussions with the Bidders during Phase 3.

3.3 EMISSIONS

All new natural gas fueled projects considered for the shortlist included low emissions combustion technologies supplemented with both selective catalytic reduction (SCR) for nitrogen oxide (NOx) emissions as well as oxidation catalysts for carbon monoxide (CO) and volatile organic compound (VOC) reduction. Hydrogen fuel combustion has been identified as a future alternative for both the RICE PPA proposal as well as the EPC combustion turbine proposals.

The coal fired project has quoted 90 percent carbon dioxide (CO₂) reduction capabilities and also utilizes low NOx burners with overfire air ports and selective non-catalytic reduction (SNCR) to control NOx emissions. The project also utilizes pulse-jet fabric filters for particulate matter control and wet limestone flue gas desulfurization systems for sulfur dioxide (SO₂) emission control. Activated carbon injection is also utilized for reducing mercury emissions.

3.4 RENEWABLE GENERATION TAX CREDIT CONSIDERATIONS

As there were no renewable projects carried into the Phase 2 evaluation as an EPC or BT offer, there was no accounting of either Production Tax Credits or Investment Tax Credits for these projects.

All remaining renewable PPA projects were relying on some measure of qualification for tax credits and accounted for these in their proposed PPA pricing. The level of qualification varied amongst the Bidders based upon their approach to either safe-harbor equipment or their initial start of construction date for the project. Some Bidders have indicated that their ability to retain the quoted level of qualification will be a function of the RFP and Commission approval process timing.

3.5 APPRENTICESHIP EMPLOYMENT CONSIDERATIONS

To verify Bidders' intentions to comply with NMSA 1978, Section 62-13-16 regarding the hiring of at least 10 percent apprentices for the construction of facilities that generate electricity, all Bidders were requested both in the RFP proposal data forms and through bid clarifications that they would comply with this requirement. All shortlisted Bidders indicated that they would comply. Some Bidders had established programs for sourcing apprentices, some indicated that they would rely on their contractor to source the apprentices, some confirmed that they would comply "subject to availability of qualified applicants," and some provided a cost increase to comply with this requirement.



4 PHASE 2 SHORTLIST SELECTION

4.1 SATISFACTION OF SHORTLIST OBJECTIVES

As outlined in the Proposal Evaluation Methodology document, there were several objectives for establishing the Phase 2 shortlist. These objectives are reiterated here with a description as to how each of these was fulfilled.

1) The shortlist should maintain the most favorable bids in each generation technology category.

The most favorable bids from each technology were selected and retained. Technologies that were not selected for the shortlist and the reasons as to why they were not selected are summarized as follows:

Combined wind + solar – the pricing submitted reflected a solar pricing component that was not as competitive as stand-alone solar projects. For this reason, the combined bid was not shortlisted.

Combined wind + energy storage – the pricing submitted reflected an ESS pricing component that was not as competitive as other ESS projects. For this reason, the combined bid was not shortlisted. (Note that a combined wind + solar + energy storage project was retained to assess any potential benefit of a combined installation).

Demand side management (DSM) – no DSM bids were submitted.

Natural gas combined cycle (NGCC) – one NGCC project was submitted as a PPA bid utilizing existing PNM property/infrastructure and was therefore excluded in the Phase 1 evaluation.

Hydrogen fueled resources – hydrogen fueled proposals were either submitted as a BT offer without the appropriate construction license or withdrawn by the Bidder during the Phase 1 evaluation. Hydrogen fuel does remain an option to be more fully developed on some of the shortlisted natural gas projects.

2) The shortlist should generally maintain offerings in each technology category with sufficient capacity to deliver the full requested accredited capacity.

When sufficient resources were proposed in response to the RFP, this objective was satisfied. In some instances, there were insufficient proposals offered to comply with this objective. However, when sufficient resources were available, multiple projects were shortlisted from each technology to maintain redundancy of Proposals for contract negotiation and competitiveness purposes.

3) The shortlist should maintain optionality in the project implementation schedule and consideration of requirements associated with optimizing any available federal tax credits associated with renewable energy.

Project implementation schedule and the ability to benefit from available federal tax credits has been discussed with all Bidders. This is primarily a function of when contracts can be executed. Some Bidders have qualified safe-harbored equipment and others have qualified via start of construction of the quoted projects. There is limited opportunity in the proposals offered for an in-service date much in advance of the June 1, 2023 targeted in-service date. Later in-service dates could be made available but would not fulfill a timely replacement of the Palo Verde capacity.



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- 4) The shortlist should avoid including proposals that include any “fatal flaws” considering experience, development status, transmission system viability, and/or incomplete proposals.**

The shortlist has not selected any projects with known “fatal flaws.” Some projects will require further validation and investigation regarding risks associated with their implementation schedule as well as transmission system requirements. These will be further evaluated during Phase 3.

- 5) The shortlist should retain offerings that optimize the total delivered cost of electricity.**

The RFP Administration Team selected proposals that ranked highest on a total evaluated, levelized, delivered cost of energy as well as those that ranked the highest on a total evaluated, levelized, delivered cost of accredited capacity. This selection methodology increases the quantity of energy storage proposals as well as the hybrid renewable and energy storage projects carried into the shortlist. Stand-alone energy storage systems with shorter storage durations as well as hybrid systems with a larger percentage of energy storage capacity tend to rank more highly for value of accredited capacity. The opposite is true for minimizing the levelized cost of delivered energy. By selecting the top bids in each category, this slightly expanded the list of shortlisted proposals, but supported a more thorough assessment of a wider selection of resources to determine what mix of energy and capacity resources best satisfies the objectives of PNM’s RFP through the portfolio modeling evaluation.

- 6) The shortlist should retain proposals that allow the ability to maintain required system reliability.**

The shortlist has retained a wide variety of proposals that can contribute to system reliability including fully dispatchable resources, storage resources of varying capacities and durations, as well as hybrid renewable solutions with varying contributions from energy storage resources. The Phase 3 evaluation will more fully evaluate the mix of resources that most fully contributes to system reliability.

- 7) Shortlisted offers should maintain the flexibility to incorporate and allow for future increased integration of renewable energy resources.**

This objective is satisfied through the selection of representative projects for all technologies bid into the RFP.

4.2 SHORTLISTED PROJECTS

In response to the above shortlist objectives and on the basis of financial rankings, selection of projects from each available technology category, schedule compliance, and Bidders’ approaches to complying with the objectives of NMSA 1978, Section 62-13-16, the REA, and the IRP Rule, the projects summarized in Table 4-1 were selected.

It is noted that two categories of shortlisted proposals were considered including:

- Tier 1 proposals: proposals that best satisfied the RFP objectives, and
- Tier 2 proposals: proposals retained for further evaluation and potential negotiation should an issue arise with one of the Tier 1 proposals.



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Table 4-1. Summary of Shortlisted Proposals Selected from Phase 2 Evaluation.

Technology		Contracting Structure					Proposals	Generation Capacity	Storage Capacity
		PPA	ESA	BT	EPC	Other	Quantity	MW	MWh
Wind	Tier 1	1	-	-	-	-	1	180	-
Solar	Tier 1	4	-	-	-	-	4	536	-
	Tier 2	2	-	-	-	-	2	250	-
ESS	Tier 1	-	12	-	3	-	15	-	3,655
	Tier 2	-	1	-	-	-	1	-	200
Solar + ESS	Tier 1	13	-	-	-	-	13	2,272	3,712
	Tier 2	8	-	-	-	-	8	868	1,690
Wind + Solar + ESS	Tier 1	1	-	-	-	-	1	244	128
Gas - SC	Tier 1	2	-	-	3	-	5	593	-
Gas - RICE	Tier 1	1	-	-	-	-	1	108	-
Coal	Tier 1	2	-	-	-	-	2	200	-
Total		34	13	0	6	0	53	5,251	9,385

Upon selection of the Phase 2 shortlist, the RFP process will continue to evaluate 53 project variants from 19 Bidders and 22 projects.

Bidders with no projects selected for the shortlist were notified on December 9, 2020.

Phase 3 Bid Evaluation Summary

PNM Exhibit RWN-8

Is contained in the following 8 pages.



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Phase 3 Bid Evaluation Summary

Revision A – Draft

February 24, 2021

Revision B – Final

March 26, 2021



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2020 Replacement Generation RFP

1 INTRODUCTION

Public Service Company of New Mexico (“PNM”) a wholly owned subsidiary of PNM Resources, Inc., issued its 2020 Replacement Generation Request for Proposals (the “2020 RFP”) on June 25, 2020 for the supply of nominally 150 MW of accredited capacity resources to serve its New Mexico system. The exact quantity of resources selected will be dependent upon resource characteristics and resource modeling, including PNM’s most recent load and planning forecasts, and is subject to New Mexico Public Regulation Commission (“Commission”) approval.

The 2020 RFP is focused on securing resources that support PNM’s transition to a zero-carbon energy future by 2040 while fulfilling PNM’s obligation to serve its customers with reliable, low cost energy, in an environmentally responsible manner. No resource type or project ownership structure was specifically requested, preferred, or excluded by PNM in response to the 2020 RFP.

The 2020 RFP is structured as an all-source capacity solicitation considering various types of technologies and delivery structures. PNM has received and is evaluating proposals (“Proposals”) for renewable, storage, and thermal resources as well as combinations of each from participating bidders (each a “Bidder”).

This summary report is a follow-up to, and continuation of, the Proposal Evaluation Methodology document initially issued on September 23, 2020, the Phase 1 Bid Evaluation Summary initially issued on October 20, 2020, and the Phase 2 Bid Evaluation Summary initially issued on January 19, 2021, and summarizes the Phase 3 evaluation process and selection of final bids for contract negotiations.

2 SUMMARY OF PHASE 3 BIDS

As noted in the Phase 2 Bid Evaluation Summary document, 53 project variants from 19 Bidders and 22 projects were carried into the Phase 3 bid evaluation process. Those proposals are summarized in Table 2-1. It is noted that two categories of shortlisted proposals were considered including:

- Tier 1 proposals: proposals that best satisfied the RFP objectives, and
- Tier 2 proposals: proposals retained for further evaluation and potential negotiation should an issue arise with one of the Tier 1 proposals.



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Table 2-1. Summary of Shortlisted Proposals Selected from Phase 2 Evaluation.

Technology		Contracting Structure					Proposals	Generation Capacity	Storage Capacity
		PPA	ESA	BT	EPC	Other	Quantity	MW	MWh
Wind	Tier 1	1	-	-	-	-	1	180	-
Solar	Tier 1	4	-	-	-	-	4	536	-
	Tier 2	2	-	-	-	-	2	250	-
ESS	Tier 1	-	12	-	3	-	15	-	3,655
	Tier 2	-	1	-	-	-	1	-	200
Solar + ESS	Tier 1	13	-	-	-	-	13	2,272	3,712
	Tier 2	8	-	-	-	-	8	868	1,690
Wind + Solar + ESS	Tier 1	1	-	-	-	-	1	244	128
Gas - SC	Tier 1	2	-	-	3	-	5	593	-
Gas - RICE	Tier 1	1	-	-	-	-	1	108	-
Coal	Tier 1	2	-	-	-	-	2	200	-
Total		34	13	0	6	0	53	5,251	9,385

3 PHASE 3 EVALUATION

Upon completion of the Phase 2 evaluation and notification of the selected Tier 1 bidders that they were shortlisted, the Phase 3 evaluation was initiated with the intent to complete a more detailed assessment of the project characteristics including status of development, economics, and commercial and contracting terms. The Phase 3 evaluation efforts were focused on narrowing the shortlisted proposals to a final selection of candidates with which to initiate contract negotiations. The activities within the Phase 3 evaluation included the following:

- Shortlist Bidder meetings including proposal presentations and clarifications,
- Bid clarifications,
- Shortlist Scoring Matrix development,
- System portfolio modeling,
- Finalist selection, and
- Contract negotiation.

The Phase 3 evaluation spanned the time from November 11, 2020 through the submittal of the replacement resource filing in March 2021.

As part of the Phase 3 evaluation process, the RFP Administration team documented the final offers from the shortlisted Bidders as well as the inputs submitted to PNM's resource planning team for portfolio modeling in the confidential bid comparison template "PNM 2020 RFP Bid Summary Document (20210203)-Final.xlsx".



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3.1 SHORTLIST BIDDER MEETINGS

The Phase 3 process was initiated with bidder interview web conferences with the fourteen Tier 1 shortlisted bidders from November 12 to November 19, 2020.

The Replacement Generation RFP shortlisted bidder interview meetings were scheduled to allow the bidders to present their proposals and to have an open discussion with the PNM team regarding the status, benefits, and challenges associated with the projects. The meetings were also intended to allow PNM to further clarify certain RFP requirements and discuss certain technical and commercial terms proposed in the bid options. An agenda was issued prior to these meetings with additional questions issued as a result of these meetings. The agenda structure was established to allow a well-rounded discussion of the key project characteristics considered in the evaluation.

In response to the meeting and subsequent bid clarification questions, each of the bidders was allowed to offer a “best and final” proposal for PNM’s consideration to address any issues raised during the interview or to incorporate any subsequent information that the bidder had obtained after submittal of the original proposal. Seven of the bidders confirmed that their previously provided pricing was still applicable, two of the bidders provided updated pricing while five others either confirmed the pricing previously submitted and offered pricing for additional alternatives that were presented during the shortlist meetings or indicated that they wanted to submit a best and final offer.

3.2 BID CLARIFICATIONS

After the conclusion of the shortlist bidder meetings, a third round of bid clarification questions was issued to the Tier 1 shortlisted bidders to document questions raised during the bidder meetings. A fourth round of questions was also issued to a few bidders, as necessary, to clarify remaining open items.

Additionally, web conferences were held with four of the shortlisted bidders on January 19 and 20, 2021 to further investigate the status and risks surrounding transmission system capabilities and network upgrade timelines for their projects.

3.3 PROPOSAL RANKING MATRIX

As described in the Proposal Evaluation Methodology document, a Shortlist Scoring Matrix was used as an evaluation tool in parallel to PNM’s system portfolio modeling to identify and comparatively rank projects of a similar technology with respect to both price and non-price factors and risks. The ranking matrix was structured as a weighted scoring matrix consisting of the following major scoring categories:

- Commercial Conditions;
- Creditworthiness;
- Team Qualifications;
- Project Engineering;
- Social, Environmental & Siting; and
- Interconnection/Performance.



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The Shortlist Scoring Matrix was not intended to solely be used for final resource selection, but for an informative comparison of project characteristics to be considered in conjunction with the system portfolio modeling results and other decision factors.

Assessment and selection of specific generation technologies was left to the more extensive system planning and modeling efforts which considered how the technologies and project characteristics best integrated into PNM's generation portfolio.

3.4 SYSTEM PORTFOLIO MODELING

In support of the detailed system portfolio modeling to be performed by PNM's resource planning team, modeling inputs were initially provided on November 10, 2020 for the Tier 1 bids shortlisted from the Phase 2 activities with Tier 2 bids added on November 20, 2020. Ongoing refinement of the modeling inputs as a result of ongoing bid clarifications and assessment continued into January 2021.

The highest ranking projects were modeled and validated against the closest competitive bids and with varying sensitivities by PNM's Resource Planning Group and Horizons Energy to understand the resource portfolio that most economically satisfied PNM's future load forecast. Results from the modeling concluded that a mix of renewable and battery resources would provide the most effective resource mix with the least impact to the rate payers while maintaining the desired system reliability.

3.5 FINALIST SELECTION

Of the highest ranking projects, primary bids were selected based upon proposed pricing, overall ranking from the bid evaluation process and modeling results. Those primary bidders are identified below.

A list of alternate bidders was also developed to maintain a competitive process during negotiations. These bids, although not ranked as the highest in the evaluation, are competitive and would meet future load forecast needs.

Contract negotiations were then initiated with the primary bidders identified in Table 3.5-1.

Notifications were provided to twelve non-shortlisted bidders on January 22, 2021 indicating that they were not selected as a finalist within the ongoing Phase 3 evaluation and that they would no longer be considered for final contract negotiations.



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Table 3.5-1. Final Selection Summary

Proposal	County	Project Structure	Capacity	Evaluated Total Delivered Cost of Energy / Capacity ^a	Cost Notes	Evaluated Capacity Factor	Strengths	Challenges
Primary Bids								
Bid 68-2.2	Bernalillo	Solar + Storage PPA	300 MW Solar / 150 MW (600 MWH) BESS	\$35.05 / MWH \$189.14 / kW-yr	Fixed for 20 Year Term	32.59%	- Favorable pricing – qualifies for 30% ITC - Private land with lease option – near ABQ - Path to POI is secure – 1.7 mile gen-tie	- Limited battery storage experience - Entered DISIS in October 2020
Bid 79-1.1	Bernalillo	Energy Storage Agreement	100 MW (200 MWH) BESS	\$156.13 / MWH \$156.74 / kW-yr	Battery capacity cost escalates at 2% per year	365 cycles per year	- Favorable pricing - Private land with lease option – near ABQ - POI is near the site – 1,100 ft gen-tie	- Required coordination of dispatch of adjacent generation - Entered DISIS in October 2020
Bid 7-1.1	Rio Arriba	Solar + Storage PPA	150 MW Solar / 40 MW (160 MWH) BESS	\$29.25 / MWH \$239.50 / kW-yr	Fixed for 20 Year Term	29.25%	- Favorable solar pricing – qualifies for 30% ITC - Involvement of Jicarilla Apache Nation and use of land - Engagement of New Mexico State University in study work - Submitted into DISIS in July, 2018	- Long-term ownership unknown as development would be sold - Ongoing permitting, planning, etc. – under jurisdiction of Tribe and BIA. - Electrical interconnection via JANPA
Alternative Bids								
Bid 12-1.1a	Clayton	Wind PPA	180 MW Wind	\$31.06 / MWH \$1,015.04 / kW-yr	Fixed for 20 Year Term	39.91%	- Favorable evaluated delivered cost - 100% private land for project, considering expansion to state land - Long-term wind lease in place - Long-term ownership role	- Uncertainty with transmission path and ROW needs for 68 mile transmission line - Transmission capacity concerns
Bid 56-1.2a	Santa Fe	Solar + Storage PPA	96 MW Solar / 48 MW (96 MWH) BESS	\$36.30 / MWH \$230.70 / kW-yr	Fixed for 20 Year Term	32.55%	- 30 Year land lease agreement – near Santa Fe - Full site control to POI - Entered DISIS in August 2019	- Permitting approvals / expectations in Santa Fe County - Transmission capacity concerns
Bid 69-1.2	Rio Arriba	Solar + Storage PPA	150 MW Solar / 40 MW (80 MWH) BESS	\$29.19 / MWH \$308.50 / kW-yr	Fixed for 20 Year Term	32.63%	- Favorable solar pricing for capacity of facility - Involvement of Jicarilla Apache Nation and use of land	- Limited team development experience - Electrical interconnection via JANPA
Bid 38-4.1	Sandoval	Solar + Storage PPA	140 MW Solar / 70 MW (280 MWH) BESS	\$41.32 / MWH \$213.27 / kW-yr	Fixed for 20 Year Term	31.17%	- Executed GIA in place - Exclusive option to purchase land - Long-term ownership role	- Permits and Phase 1 Environmental Site Assessment yet to be completed

a. Evaluated Total Delivered Cost is a levelized lifecycle cost determined as at the time of shortlisting. Final evaluated cost may vary from that indicated.



2020 Replacement Generation RFP

3.6 CONTRACT NEGOTIATIONS

Contract negotiations initiated with the primary bids in January 2021 and continued into March with the primary bids executing contracts prior to the filing of the replacement resources for the Palo Verde lease abandonment.

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION)
OF PUBLIC SERVICE COMPANY OF NEW)
MEXICO FOR ABANDONMENT OF 114MW)
OF LEASED PALO VERDE NUCLEAR)
GENERATING STATION CAPACITY AND)
SALE AND TRANSFER OF RELATED)
ASSETS, AND FOR APPROVAL OF)
REPLACEMENT RESOURCES UNDER)
17.9.551 NMAC,)
)
PUBLIC SERVICE COMPANY OF NEW)
MEXICO,)
)
Applicant)
_____)

Case No. 21-____-UT

SELF AFFIRMATION

ROGER W. NAGEL, Principal, Aion Energy LLC, upon penalty of perjury under the laws, affirm and state: I have read the foregoing **Direct Testimony of Roger W. Nagel** and it is true and accurate based on my own personal knowledge and belief.

DATED this 2nd day of April, 2021.

/s/ Roger W. Nagel _____
ROGER W. NAGEL