BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF PUBLIC SERVICE COMPANY OF NEW MEXICO'S APPLICATION FOR APPROVAL OF ITS RENEWABLE ENERGY ACT PLAN FOR 2020 AND PROPOSED 2020 RIDER RATE UNDER RATE RIDER NO. 36,	)	**Case No. 19-00___-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant.	)	

DIRECT TESTIMONY

OF

SHANE GUTIERREZ

June 3, 2019

NMPRC CASE NO. 19-00____-UT
INDEX TO THE DIRECT TESTIMONY OF SHANE GUTIERREZ

WITNESS FOR
PUBLIC SERVICE COMPANY OF NEW MEXICO

DIRECT TESTIMONY OF
SHANE GUTIERREZ
NMPRC CASE NO. 19-00_____-UT

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, TITLE, BUSINESS ADDRESS AND POSITION.

A. My name is Shane Gutierrez. My business address is Public Service Company of New Mexico ("PN+M"), 414 Silver Avenue Southwest, Albuquerque, New Mexico 87102. I am an Engineer IV in PNM's Planning and Resources Department. The Planning and Resources Department is responsible for identifying the future resources PNM will need to provide electric service to retail customers.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. My educational background and professional experience are summarized in PNM Exhibit SG-1, which includes a tabulation of cases before the New Mexico Public Regulation Commission ("NMPRC" or "Commission") in which I have testified.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony:

- Presents PNM's projected renewable portfolio standard ("RPS") requirements for 2020 and 2021;
- Demonstrates that the 2020 Plan meets the requirements of the Renewable Energy Act, NMSA 1978, §§ 62-16-1 to -10 ("REA"), and Commission

Rule 17.9.572 NMAC ("Rule 572"), as amended by the Energy Transition Act ("ETA"), in 2021, and meets the requirements of the REA and Rule 572 in 2020 with the exception of complying with the RPS and;

- Provides certain information related to the Lightning Dock Geothermal Facility ("Lightning Dock") procurement in compliance with the Final Order in Case No. 18-00158-UT.

Q. HAVE YOU PREPARED ANY EXHIBITS IN ADDITION TO YOUR RESUME?

A. Yes. PNM Exhibit SG-2 is the 2020 Renewable Energy Act Procurement Plan. PNM Exhibit SG-3 is a three-page exhibit that contains the calculations supporting my testimony. It summarizes the RPS requirements and the resources PNM will use to meet those requirements in the plan year, 2020, and next plan year, 2021.

Q. PLEASE COMPARE PNM'S 2020 PLAN WITH THE PROJECTIONS FOR 2020 THAT PNM PROVIDED IN ITS 2019 PLAN, WHICH WAS APPROVED IN CASE NO. 18-00158-UT.

A. PNM's 2020 Plan differs from the projected plan PNM filed in Case No. 18-00158-UT largely due to the impact of the recently enacted Energy Transition Act ("ETA"). In the 2019 Plan, PNM projected that it would comply with the RPS in 2020. However, the ETA effectively increased the RPS requirement for 2020 because it removed the reductions to the RPS for certain large governmental and

nongovernmental customers described in the former Sections 62-16-4(A)(2) and (3) of the REA, which were repealed by the ETA. Even though the RPS remains 20% of retail sales for 2020, the effect of removing the large customer adjustment and the reduction for large exempt customers means that PNM's 2020 RPS requirement increased from the 1,363,086 MWh PNM projected in the 2019 Plan to 1,671,822 MWh.

In addition to amending the way the RPS is calculated, the ETA also amended the calculation of the reasonable cost threshold ("RCT"). Section 28(E) of the ETA provides that the RCT is now defined as "an average annual levelized cost of sixty dollars ($60.00) per megawatt-hour at the point of interconnection of the renewable energy resource with the transmission system, adjusted for inflation after 2020." Accordingly, the portfolio RCT presented in the 2019 Plan is no longer applicable to the 2020 plan year. Mr. Fallgren explains in his direct testimony that PNM's proposed new wind procurement complies with the RCT.

Finally, the ETA amended the REA to remove the requirement in the former Section 62-16-4(A)(4) that REA resource portfolios "be diversified as to the type of renewable energy resource."

II. PLAN YEAR (2020) RPS COMPLIANCE

Q. WHAT IS PNM'S RPS REQUIREMENT FOR 2020?

A. Pursuant to Rule 572.10 and Section 62-16-4(A) of the REA, the RPS requirement is 20% of retail sales in 2020. PNM's projected retail sales in 2020 are 8,805,689 MWh. Section 32(B)(2) of the ETA requires PNM to reduce total projected retail sales for sales under a Commission-approved voluntary program for purposes of calculating the RPS. PNM currently has two voluntary renewable energy programs: the Sky Blue program approved in Case No. 10-00018-UT, and Rate 36B, pursuant to which PNM provides renewable energy to its data center customer pursuant to the Special Service Contract initially approved by the Commission in Case No. 16-00191-UT. After reducing the retail sales projection by 446,579 MWh for sales under these two voluntary programs, PNM's sales subject to the RPS are 8,359,110 MWh. The RPS requirement then is equal to 20% of those sales, or 1,671,822 MWh. Please see PNM Exhibit SG-3 for a detailed calculation of the 2020 RPS.

Q. WILL PNM'S EXISTING RENEWABLE RESOURCES PROVIDE SUFFICIENT MWH-RECS TO MEET THE RPS IN 2020?

A. No. Utilizing existing renewable procurements, which I discuss later in my testimony, and projected banked RECs from 2019, PNM is expected to be short 68,611 MWh-RECs as shown on page 1, line 10, in PNM Exhibit SG-3.

Q. IS IT POSSIBLE FOR PNM TO PROCURE SUFFICIENT RENEWABLE ENERGY TO MEET THE RPS IN 2020?

A. No. As Mr. Fallgren explains in his direct testimony, PNM's proposed La Joya II wind facility procurement will be in service at the end of 2020 and will not provide sufficient RECs for PNM to meet the 2020 RPS. PNM is not aware of any other renewable energy procurement that would allow it to meet the RPS in 2020, as modified by the ETA. It might be possible for PNM to procure sufficient, unbundled RECs on the market, however, the ETA now provides that RECs used to meet the RPS must be associated with renewable energy actually delivered to PNM's system. PNM is not aware of any such RECs that would allow it to meet the 2020 RPS other than to use RECs generated in 2021 by the La Joya II facility and retire them in the future to make-up the deficit from 2020. For these reasons, PNM requests a variance from the requirement in Rule 572 that PNM meet the RPS in 2020, as discussed by Mr. Fallgren

Q. WHAT NEW RESOURCES WILL PRODUCE ENERGY AND/OR RECS TO APPLY TOWARD RPS COMPLIANCE IN 2020?

A. As discussed by PNM Witness Anthony Bueno, PNM is requesting continuation of the Customer Solar REC Purchase Program ("CSPP") program for DG systems sized up to 100 kW and the Capacity Reservation program for DG systems sized over 100 kW and up to 1 MW. The RECs projected to be purchased under these programs are included in the RPS compliance calculations for the 2020 and 2021.

Q. WHAT ARE THE COSTS OF PNM'S PORTFOLIO OF REA RESOURCES IN 2020?

A. Total net costs for 2020 are $29.1 million, as shown on page 1, line 19 of PNM Exhibit SG-2. Page 2 of PNM Exhibit SG-3 further details the resources and their projected costs for 2020.

Q. WHAT TYPES OF RESOURCES WILL COMPRISE PNM'S REA PORTFOLIO IN 2020?

A. I describe the specific renewable resources in more detail later in my testimony. The portfolio will be comprised of 64% wind, 24% solar, and 5% "other" as defined in Rule 572.7(G).

III. NEXT PLAN YEAR (2021) RPS COMPLIANCE

Q. WHAT IS PNM'S PROJECTED RPS REQUIREMENT FOR 2021?

A. PNM's projected retail sales in 2021 are 9,098,400 MWh. After reducing the retail sales projection by 878,062 MWh for sales under voluntary programs, PNM's sales subject to the RPS are 8,220,337 MWh. The RPS requirement then is equal to 20% of those sales, or 1,644,067 MWh. Please see PNM Exhibit SG-3 for a detailed calculation of the 2021 RPS.

Q. ARE PNM'S EXISTING AND NEW RENEWABLE RESOURCE PROJECTIONS SUFFICIENT TO MEET THE RPS REQUIREMENT IN 2021?

A. Yes. PNM is projected to be long 274,331 MWh-RECs as shown on page 1, line 10, in PNM Exhibit SG-3. To make up for the shortfall in 2020, PNM is proposing to retire RECs in the amount equal to the 2020 deficit using excess RECs from 2021. This results in a bank of RECs by the end of 2021 of 205,720 MWh-RECs as shown on page 1, line 11, in PNM Exhibit SG-3.

Q. WHAT ARE THE PROJECTED COSTS OF PNM'S PORTFOLIO OF REA RESOURCES IN 2021?

A. Total net costs for 2021 are $25.5 million, as shown on page 1, line 19 of PNM Exhibit SG-2. Page 2 of PNM Exhibit SG-3 further details the resources and their projected costs for 2021.

Q. IS THE PROJECTED COST OF THE LA JOYA II WIND PROJECT WITHIN THE RCT?

A. Yes. PNM has compared the cost of the La Joya II Wind project to the RCT set forth in the ETA. As shown on page 2, line 3, column B, of PNM Exhibit SG-3, the La Joya PPA cost is $17.48/MWh in 2020 and is fixed over a 20-year term. Therefore, the new procurement meets the requirement in Section 28(E) of the ETA as this resource falls below the average annual levelized cost of $60.90/MWh ($60 adjusted for 1.5% annual inflation from 2020).

Q. IS THE PROJECTED COST FOR THE EXTENSION OF THE CSPP WITHIN THE RCT?

A. Yes. PNM has compared the cost of the CSPP Extension to the RCT set forth in the ETA. As shown on page 2, line 18, column B, of PNM Exhibit SG-3 the CSPP Extension cost is $2.50/MWh-REC in 2020 and is fixed over the program term. Therefore, the new procurement meets the requirement in Section 28(E) of the ETA as this resource falls below the average annual levelized cost of $60.90/MWh ($60 adjusted for 1.5% annual inflation from 2020).

Q. WHAT TYPES OF RESOURCES WILL COMPRISE PNM'S REA PORTFOLIO IN 2021?

A. I describe the specific renewable resources in more detail below. The portfolio will be 65% wind, 23% solar, and 5% "other" as defined in Rule 572.7(G).

IV. RESOURCES FOR RPS COMPLIANCE AND PORTFOLIO COSTS

Q. HAVE YOU PREPARED AN OVERVIEW OF PNM'S EXISTING RENEWABLE RESOURCES AND COSTS?

A. Yes. PNM's existing renewable resources include wind, solar PV, geothermal energy, and purchases of MWh-RECs associated with customer-sited solar PV facilities on PNM's system. Projected production and cost information for these resources is provided on pages 2 and 3 in PNM Exhibit SG-3.

Q. WHAT ARE PNM'S EXISTING WIND RESOURCES?

A. PNM has two existing sources of wind generation:

a) PNM has a PPA for all of the output of the 200 MW New Mexico Wind Energy Center ("NMWEC") located in Quay County, New Mexico, which currently generates approximately 620,000 MWh of energy and associated MWh-RECs annually, a portion of which is used for PNM's Sky Blue program. The RPS net cost of this resource is projected to be $1.3 million in 2020, and $1.4 million in 2021.

b) PNM has a PPA for the entire output of the Red Mesa Wind Energy Center ("Red Mesa"), a 102 MW facility in Cibola County, New Mexico. Energy production from Red Mesa is expected to be 208,223 MWh in 2020 and 2021. The RPS net cost of the PPA is projected to be $1.2 million in 2020 and $1.3 million in 2021.

Q. WHAT ARE PNM'S EXISTING SOLAR RESOURCES?

A. PNM owns 107 MW of solar photovoltaic ("PV") generation with an additional 50 MW to be constructed in 2019. PNM currently allocates the energy produced from 1.5 MW of these facilities to PNM's Sky Blue program. The 157 MW of PNM-owned solar PV is comprised of the following:

a) Energy produced by 22.5 MW of solar PV facilities that were constructed in 2011 ("2011 PNM Solar PV"). This includes the 0.5 MW Prosperity solar PV with battery storage project. The production from these facilities

is projected to be 47,461 MWh in 2020 and 47,220 MWh 2021.[1] The RPS net cost of these facilities is projected to be $2.7 million in 2020 and $3.3 million in 2021.

b) Energy produced by 20 MW of solar PV facilities that became operational in 2013 ("2013 PNM Solar PV"). The energy production from the 2013 PNM Solar PV is projected to be 46,295 MWh in 2020 and 46,063 MWh in 2021[2]. The projected net cost for these facilities is $2.8 million in 2020 and in 2021.

c) Energy produced by 23 MW of solar PV facilities that became operational in 2014 ("2014 PNM Solar PV"). The energy production from the 2014 PNM Solar PV is projected to be 60,346 MWh in 2020 and 60,044 MWh in 2021[3]. The RPS net cost of these facilities is projected to be $2.8 million in 2020 and in 2021.

d) Energy produced by 40 MW of solar PV facilities that became operational in 2015 ("2015 PNM Solar PV"). The energy production from the 2015 PNM Solar PV is projected to be 92,775 MWh in 2020 and 92,080 MWh in 2021.[4] Per the Stipulation in Case No. 14-00158-UT, these facilities are considered a system resource and capital and O&M costs are therefore not included in the calculation of PNM's RPS net costs. Only the costs to register and retire the associated MWh-RECs with Western Renewable Energy Generation Information System ("WREGIS") are included.

[1] PNM assumes that production will decline 0.5% annually due to degradation of these solar PV panels.
[2] PNM assumes that production will decline 0.5% annually due to degradation of these solar PV panels.
[3] PNM assumes that production will decline 0.5% annually due to degradation of these solar PV panels.
[4] PNM assumes that production will decline 0.75% annually due to degradation of these solar PV panels.

e) PNM owns solar PV facilities at its Algodones site (25 kW) and its Aztec building in Albuquerque (5 kW). The MWh-RECs associated with the energy from these facilities have a grandfathered 3-1 weighting and the combined annual output from these facilities is projected to be 112 MWh in 2020 and 111 MWh in 2021.[5] The capital investment in these facilities is fully amortized; therefore no annual costs are associated with MWh-RECs from these facilities, although WREGIS fees and avoided fuel costs are included in the RCT calculations for 2020 and 2021.

f) Energy produced by 50 MW of solar PV facilities approved in Case No. 17-00129-UT that are expected to become operational in 2019 and be fully operational in 2020 ("2019 PNM Solar PV"). The energy production from the 2019 PNM Solar PV is projected to be 140,000 MWh in 2020 and 138,950 MWh in 2021[6]. The RPS net cost of these facilities is projected to be $5.8 million in 2020 and in 2021.

Q. WHAT ARE PNM'S EXISTING "OTHER" (NON-WIND, NON-SOLAR) RESOURCES?

A. PNM has a PPA for the full output produced by Lightning Dock, a facility that generates electricity from geothermal resources and is located near Lordsburg, New Mexico. As a result of the NMPRC approval of an amended procurement from Lightning Dock in PNM's 2018 Plan, this facility is being expanded from 4

[5] PNM assumes that production will decline 1.0% annually due to degradation of these solar PV panels.
[6] PNM assumes that production will decline 0.5% annually due to degradation of these solar PV panels.

MW to 15 MW nameplate capacity. The expansion was completed by the end of 2018. Electric generation from this facility is projected to produce approximately 77,000 MWh in 2020 and in 2021. The RPS net cost for this resource is projected to be $5.3 million in 2020 and $5.5 million in 2021.

Q. WHAT REC PURCHASE ARRANGEMENTS DOES PNM HAVE FOR CUSTOMER-SITED SOLAR PV SYSTEMS?

A. Pursuant to programs approved by the Commission, PNM has numerous REC only purchase contracts with PNM customers who interconnect solar PV systems to their homes, commercial buildings or other customer facilities. Under these programs, PNM acquires some or all of the RECs associated with the energy generated from the customer-sited solar PV facility. These programs include the Small PV REC Purchase Program ("Small PV Program"), Large PV REC Purchase Program ("Large PV Program"), the Solar REC Incentive Programs ("SIP"), the Capacity Reservation Program and the Customer Solar REC Purchase Program ("CSPP"), which was extended through 2019 in Case No. 16-00148-UT and which PNM proposes in this case to extend again beginning in 2020. PNM projects that these programs collectively will generate 108,053 RECs in 2020 and 107,168 RECs in 2021 at an annual RPS net cost of $7.2 million in 2020 and $6.6 million in 2021.

Q. HOW MANY RECS DOES PNM PROJECT WILL BE GENERATED BY THE NEW PROCUREMENTS PROPOSED IN THIS CASE?

A. As discussed by Mr. Fallgren, PNM is requesting approval of an additional wind resource in this case, expected to be online and producing energy by the end of December 2020. The La Joya II facility is a 140 MW wind resource located in Torrance County, New Mexico. PNM does not assume any production from this facility in 2020, but assumes 537,163 MWh of production in 2021. Additionally, as Mr. Bueno describes, I have included the number of MWh-RECs under PNM's extension of the CSPP DG REC purchase program, as well as the capacity reservation program. These numbers are shown on PNM Exhibit SG-3, page 2, line 19.

Q. PLEASE DESCRIBE THE WREGIS COSTS ASSOCIATED WITH PNM'S RENEWABLE RESOURCES.

A. Pursuant to Rule 572.17(E), WREGIS certification is required for all MWh-RECs used to demonstrate compliance with the RPS. PNM's annual WREGIS fee is $83 per year to maintain an account. Additionally, WREGIS charges a fee of $0.005 per MWh-REC for certificate issuance or transfer and $0.005 per MWh-REC for retirement for a total fee of $0.010 per MWh-REC. For the Red Mesa and Lighting Dock resources, PNM will only incur the cost to retire MWh-RECs from those facilities as those RECs are transferred to PNM, thus only $0.005 per MWh-REC is applied. Additionally, PNM is only applying the WREGIS fee for

MWh-REC retirement in the year that RECs or banked RECs will be used for RPS compliance.

Q. HAS PNM INCLUDED THE COSTS OR COST SAVING ELEMENTS DESCRIBED IN RULE 572.14(C)(1) AS ADJUSTMENTS TO REVENUE REQUIREMENTS FOR EXISTING AND APPROVED RENEWABLE RESOURCES IN THE 2020 PLAN?

A. The REA, as amended by the ETA, no longer requires that PNM calculate the RCT on a portfolio basis, including adjustments for the costs and cost savings elements described in Rule 572.14(C)(1). However, because this is the first year that PNM has filed an REA plan under the ETA, PNM has included these adjustments for illustrative purposes only, including adjustments for avoided fuel, purchased power, capacity, generation, transmission or distribution, operation and maintenance, back-up and load-following, regulation costs and off-system sales opportunity impacts. PNM witness Stephanie Meeks details these avoided costs in her Direct Testimony. Ms. Meeks shows that avoided costs for 2020 are $25.18 and for 2021 are $25.00, in excess of the La Joya II purchase price. In other words, under the RCT methodology described in Rule 572, the addition of the La Joya II procurement reduces the cost of PNM's RPS compliance.

Q. DID PNM CONDUCT AN ANALYSIS TO DETERMINE ANY COST SAVINGS FOR AVOIDED CAPACITY IN THE PLAN YEAR?

A. No. Since the La Joya II Wind project is not expected to be in-service until December 31, 2020, the new resource does not impact the plan year. As a result, no avoided capacity costs were applied to the revenue requirements.

Q. HAS PNM CONDUCTED AN ANALYSIS TO DETERMINE IF THERE ARE COSTS OR COST SAVINGS FOR CAPACITY, TRANSMISSION AND DISTRIBUTION IN THE PLAN YEAR?

A. No. Cost savings for capacity, transmission and distribution have not been analyzed as no new resources are applicable to the plan year. Cost increases to the portfolio for capacity have been evaluated in PNM's 2017 IRP (Appendix P – Reliability Analysis Study). That analysis ("Reliability Analysis Study") shows that until the percentage of energy from PNM's generation portfolio is in the range of 40%-50%, and load-following targets are increased, no new resources are required for PNM to maintain the reliability metric of 0.2 LOLE (Loss of Load Expectation), which is equivalent to 2 loss of load events in a 10 year span. The 0.2 LOLE target is a recommended target for PNM's system as shown in the Reliability Analysis Study. Per PNM's 2017 IRP Most Cost Effective Portfolio, by 2020, PNM expects its renewable penetration percentage, including renewable resources not used for RPS compliance, to be approximately 20%.

V. CASE NO. 18-00158-UT LIGHTNING DOCK REPORTING REQUIREMENTS

Q. WHAT LIGHTNING DOCK REPORTING REQUIREMENTS FROM CASE NO. 18-00158-UT DO YOU ADDRESS?

A. I address the requirement to state the annual energy output by the geothermal facility for the prior calendar year and the first three months of the following year. Mr. Fallgren addresses the remaining Case No. 18-00158-UT reporting requirements in his direct testimony.

Q. WHAT WAS LIGHTNING DOCK'S PRODUCTION IN 2018 AND THE FIRST THREE MONTHS OF 2019?

A. Lightning Dock's production for calendar year 2018 was 10,952 MWh. Lightning Dock's production through March of 2019 was 17,109 MWh.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes it does.

GCG#525557

SHANE GUTIERREZ
EXPERIENCE AND QUALIFICATIONS

Address: PNM Resources Inc.
414 Silver Ave. SW
Albuquerque, NM 87102

Position: Engineer IV

Education: B.S., Electrical Engineering, New Mexico State University, 2001

Employment:

Public Service Company of New Mexico
Engineer IV, Planning & Resources Dept., 2010 to Present
Engineer, Utility Margin Department, 2009-2010

Public Service Company of Colorado
Planning Engineer/Engineer, Transmission Planning and Transmission Access Dept., 2002 to 2009

Testimony Filed:

New Mexico Public Regulation Commission

- In the Matter of Public Service Company of New Mexico's Renewable Energy Portfolio Procurement Plan for 2013, Case No. 12-00131-UT, filed April 30, 2012.
- In the Matter of Public Service Company of New Mexico's Renewable Energy Portfolio Procurement Plan for 2014 And Proposed 2014 Rider Rate under Rate Rider No. 36, Case No. 13-00183-UT, filed July 1, 2013.
- In the Matter of Public Service Company of New Mexico's Renewable Energy Portfolio Procurement Plan for 2015 And Proposed 2015 Rider Rate under Rate Rider No. 36, Case No. 14-00158-UT, filed June 2, 2014.
- In the Matter of Public Service Company of New Mexico's Renewable Energy Portfolio Procurement Plan for 2016 And Proposed 2016 Rider Rate under Rate Rider No. 36, Case No. 15-00166-UT, filed June 1, 2015.
- In the Matter of Public Service Company of New Mexico's Renewable Energy Portfolio Procurement Plan for 2017 And Proposed 2017 Rider Rate under Rate Rider No. 36, Case No. 16-00148-UT, filed June 1, 2016.

- In the Matter of Public Service Company of New Mexico's Renewable Energy Portfolio Procurement Plan for 2018 And Proposed 2018 Rider Rate under Rate Rider No. 36, Case No. 17-00129-UT, filed June 1, 2017.

- In the Matter of Public Service Company of New Mexico's Renewable Energy Portfolio Procurement Plan for 2019 And Proposed 2019 Rider Rate under Rate Rider No. 36, Case No. 18-00158-UT, filed June 1, 2018.

GCG#525545

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF PUBLIC SERVICE COMPANY OF NEW MEXICO'S APPLICATION FOR APPROVAL OF ITS RENEWABLE ENERGY ACT PLAN FOR 2020 AND PROPOSED 2020 RIDER RATE UNDER RATE RIDER NO. 36,	)	**Case No. 19-00___-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant.	)	

PUBLIC SERVICE COMPANY OF NEW MEXICO'S

RENEWABLE ENERGY ACT PLAN

FOR 2020

June 3, 2019

PUBLIC SERVICE COMPANY OF NEW MEXICO'S RENEWABLE ENERGY ACT PLAN FOR 2020

I. INTRODUCTION

Public Service Company of New Mexico ("PNM" of "Company") files this Renewable Energy Act Plan for 2020 ("2020 Plan" or "Plan") pursuant to the Renewable Energy Act ("REA"), NMSA 1978, §§ 62-16-1 to -10, as amended through 2019, and 17.9.572 NMAC ("Rule 572") of the rules of the New Mexico Public Regulation Commission ("NMPRC" or "Commission"). The Plan is supported by the testimony and exhibits of PNM witnesses Thomas G. Fallgren, Shane Gutierrez, Anthony Bueno, Thomas S. Baker, Michael J. Settlage and Stephanie Meeks.

II. SUMMARY OF 2020 PLAN PROCUREMENTS

The 2020 Plan shows that PNM does not expect to fully comply with its Renewable Portfolio Standard ("RPS") requirements in 2020 using existing renewable energy resources previously approved by the Commission. PNM does, however, expect to comply with the 2021 RPS using existing resources, as well as an additional 140 MW wind project expected to be online at the end of 2020. The 2020 Plan proposes the following additions to PNM's portfolio of renewable resources:

1. Approval of a procurement from La Joya Wind LLC through a purchase power agreement ("PPA") for the output from the 140 MW La Joya II wind farm in Torrance County at a purchase price of $17.48 MWh; and
2. Continuation of two distributed generation ("DG") programs, for systems up to 100 kW and for systems above 100 kW and up to 1 MW, that were approved by the Commission in previous PNM cases.

PNM will recover the costs of implementing the 2020 Plan, including costs for registering and retiring renewable energy credits ("REC") in the Western Renewable Energy Generation Information System ("WREGIS") through a reset rate for PNM's Renewable Energy Rider, Rider No. 36 effective January 1, 2020.

III. RPS AND RCT CALCULATIONS

The RPS and reasonable cost threshold ("RCT") calculations differ from those in previous PNM REA plans largely due to the impact of recent amendments to the REA contained in the Energy Transition Act ("ETA"). In the 2019 Plan, PNM projected that it would comply with the RPS in 2020. However, the ETA effectively increased the RPS requirement for 2020 because it removed the reductions to the RPS for certain large governmental and nongovernmental customers described in the former Sections 62-16-4(A)(2) and (3) of the REA. Even though the RPS remains 20% of retail sales for 2020, the effect of removing the large customer adjustment and the reduction for exempt customers means that the 2020 RPS increased from the 1,363,086 MWh PNM projected in the 2019 Plan to 1,671,822 MWh.

In addition to amending the way the RPS is calculated, the ETA also amended the calculation of the RCT. Section 28(E) of the ETA provides that the RCT is now defined as "an average annual levelized cost of sixty dollars ($60.00) per megawatt-hour at the point of interconnection of the renewable energy resource with the transmission system, adjusted for inflation after 2020." Accordingly, the portfolio RCT presented in the 2019 Plan is no longer applicable to the 2020 plan year.

PNM's projected RPS requirements and the corresponding portfolio procurement costs and net compliance costs for 2020 and 2021 are shown in Table 1.

PUBLIC SERVICE COMPANY OF NEW MEXICO
RENEWABLE ENERGY ACT PLAN FOR 2020

In summary, Table 1 shows the following:

- RPS Requirement: PNM's projected Net RPS Goal, after taking into account adjustments for voluntary tariff sales is 1,671,822 MWh-RECs in 2020 and 1,644,067 MWh-RECs in 2021.

- RPS Compliance: PNM is projected to be short of the RPS requirements in 2020, but expects to meet the requirements in 2021.

- Resource Diversity: Although not required under the recent amendments to the REA, PNM's renewable portfolio is diverse in terms of its resources.

PNM 2020 RPS Plan- Table 1

RPS Requirement	**2020**
Annual Retail Sales (MWh)	8,805,689
(-) Voluntary Tariff Sales (MWh)	446,579
Net Annual Retail Sales (MWh)	8,359,110
RPS (%)	20%
RPS (MWh)	1,671,822
RPS Compliance & Diversity	**2020**
Portfolio RECs	1,384,657
REC Bank from Prior Year	218,554
Portfolio RECs plus REC Bank	1,603,212
Portfolio REC Position	(68,611)
Portfolio End of Year REC Bank	0
Portfolio Percent of Annual Sales (%)	18.2%
Portfolio Percent of RPS Goal (%)	91%
Wind Diversity (%)	64%
Solar Diversity (%)	24%
Other Diversity (%)	5%
DG Diversity (%)	7%
Portfolio Cost	**2020**
Portfolio Net Cost ($)	$29,131,923

IV. EXISTING RENEWABLE ENERGY RESOURCES

PNM's existing renewable energy portfolio consists of the following previously approved resources shown below. The costs associated with the resources include the cost of registering RECs with WREGIS of $0.010 per MWh-REC.

Existing Wind:

- New Mexico Wind Energy Center ("NMWEC"): This is a 200 MW wind generation facility located in eastern New Mexico that is owned and operated by NextEra Energy Resources. Under a 25-year PPA, PNM purchases all of the energy and MWh-RECs produced by NMWEC, which on average has been about 515,000 MWh-RECs per year. The NMWEC was declared in-service in October 2003. As part of the approvals in Case No. 17-00129-UT, the NMWEC was re-powered and the term of the PPA was extended to 2045. A portion of the NMWEC output is used to supply energy and MWh-RECs for the Sky Blue program ("PNM Sky Blue") that PNM offers pursuant to Rule 572.18. MWh-RECs used for PNM Sky Blue sales are not used for RPS compliance, consistent with Rule 572.10(A). The projected number of NMWEC MWh-RECs available for RPS compliance, excluding those MWh-RECs retired for PNM Sky Blue, is 604,393 MWh-RECs in 2020 and 604,377 MWh-RECs in 2021. The gross cost for NMWEC generation and MWh-RECs is projected to be $16.5 million in 2020 and 2021.

- Red Mesa Wind Energy Center: This is a 102 MW wind facility located in Cibola County, about 50 miles west of Albuquerque. PNM has a 20-year PPA to procure energy and MWh-RECs from this facility. Purchases under the PPA began in January 1, 2015. The energy is delivered to PNM at the Red Mesa station on the Kermac-West Mesa transmission line. Annual

PUBLIC SERVICE COMPANY OF NEW MEXICO
RENEWABLE ENERGY ACT PLAN FOR 2020

production is expected to be 208,223 MWh in both 2020 and 2021 and the gross cost is projected to be $6.4 million in 2020 and $6.5 million in 2021.

Existing Solar:

Table 2 summarizes the PNM-Owned solar facilities previously approved by the NMPRC and included in the Plan. PNM anticipates that the generation from PNM's solar facilities will total 386,988 MWh in 2020 and 384,468 MWh in 2021. While the cost of the 2015 solar facilities is collected through base rates, rather than Rider 36, the Commission authorized PNM to use the MWh-RECs for RPS compliance. While the cost of the facilities themselves are recovered in base rates, not through Rider 36, the cost of registering and retiring the associated MWh-RECs in WREGIS is included the 2020 Rider 36 rate.

PNM 2020 RPS Plan- Table 2

Year Constructed	Facility Size in MW	NMPRC Case Reference	Generation in MWh For RPS Compliance			Gross Cost in $ Million	
			2020	2021		2020	2021
2006 or earlier	0.03[a]	05-00356-UT	112	111		*-$0.0*[b]	*-$0.0*[b]
2011	22.5[c]	10-00077-UT	47,461	47,220		*$3.9*	*$4.5*
2013	20[d]	12-00131-UT	46,295	46,063		*$4.0*	*$4.0*
2014	23	13-00183-UT	60,346	60,044		*$4.3*	*$4.3*
2015	40	14-00158-UT	92,775	92,080		*$0.0*	*$0.0*
2019	50	17-00129-UT	140,000	138,950		*$9.4*	*$9.3*
Totals							
			386,988	**384,468**		***$21.6***	***$22.0***

a. MWH-RECs from these facilities are weighted at 3-to-1 for RPS compliance purposes.
b. Compliance cost each year is a savings of approximately $1,000.
c. Includes a 0.5 MW solar generation/storage facility.
d. Excludes a 1.5 MW solar facility dedicated to supplying PNM's Sky Blue Program.

Existing "Other":

- Geothermal: The Dale Burgett Geothermal Facility (also known as the Lightning Dock geothermal facility) generates electricity using geothermal resources and is located in the Animas Valley in Hidalgo County, about 20 miles southwest of Lordsburg, New Mexico. PNM purchases the energy and associated MWh-RECs from this facility under a PPA with a term of 20 years. The plant went into service in January 2014. Based on projections by the plant operator, the amount of energy and MWh-RECs to be delivered to PNM from this facility is 77,000 MWh-RECs in both 2020 and 2021. The projected gross cost for MWh-RECs from this facility is approximately $7.2 million in 2020 and $7.4 million in 2021.

Existing Distributed Generation:

PNM purchases MWh-RECs generated by customer-sited DG solar energy systems under several Customer Solar Purchase Programs as described in Table 3. These include the Small Photovoltaic ("PV") REC Purchase Program ("Small PV Program"), Large Photovoltaic REC Purchase Program ("Large PV Program"), Solar REC Incentive Programs ("SIP"), the CSPP, and Capacity Reservation Program. In this plan, PNM requests approval of a capacity reservation program for solar DG facilities larger than 100 kW in 2020.

PNM projects that customer-sited solar DG facilities collectively will generate 108,053 MWh-RECs in 2020 and 107,168 MWh-RECs in 2021, for an annual gross cost of $7.2 million in 2020 and $6.6 million in 2021.

The current status of PNM's solar MWh-REC purchase programs is shown in Table 3:

PUBLIC SERVICE COMPANY OF NEW MEXICO
RENEWABLE ENERGY ACT PLAN FOR 2020

PNM 2020 RPS Plan- Table 3

PROGRAM:	**SMALL PV REC PURCHASE PROGRAM**
Program Start:	Initially approved in Case No. 05-00356-UT. Implemented as of March 1, 2006.
Term:	12 years; first year contracts began expiring in 2018
Project Size:	Solar systems sized up to 10 kW_{AC}
Participation:	743 participants
Installed Capacity:	3,404 kW_{AC}
Program Status:	Closed to new participants per the Final Order Partially Adopting Recommended Decision in Case No. 10-00037-UT, issued on August 31, 2010. The first 295 customers rolled off this rate after the termination date of 12/31/2018.

PROGRAM:	**LARGE PV REC PURCHASE PROGRAM**
Program Start:	Initially approved in Case No. 08-00221-UT. Implemented as of March 1, 2009.
Term:	20 years; first year contracts begin expiring in 2029
Project Size:	Solar systems sized above 10 kW_{AC} up to 1 MW_{AC}
Participation:	71 participants
Installed Capacity:	7,990 kW_{AC}
Program Status:	Closed to new participants per the Final Order Partially Adopting Recommended Decision in Case No. 10-00037-UT, issued on August 31, 2010.

PROGRAM:	**SOLAR REC INCENTIVE PROGRAM (INCLUDES INTERIM SIP)**
Program Start:	Initially approved in Case No. 10-00037-UT. Implemented as of November 6, 2010.
Term:	12 years for systems up to 10kW_{AC}; first year contracts begin expiring in 2022
Term:	20 years for systems sized above 10kW_{AC} up to 1 MW_{AC}; first year contracts begin expiring in 2030
Project Size:	Solar systems sized up to 1 MW_{AC}
Participation:	1,829 participants
Installed Capacity:	18,988 kW_{AC}
Program Status:	Closed to new participants per the Final Order 11-00265 UT.

PROGRAM:	**CUSTOMER SOLAR REC PURCHASE PROGRAM**
Program Start:	Initially approved in Case No. 12-00131-UT. Implemented as of January 1, 2013.
Term:	8 years; first year contracts begin expiring in 2021
Project Size:	Solar systems sized up to 100 kW_{AC}.
Participation:	2,445 participants
Installed Capacity:	13,151 kW_{AC}
Program Status:	Closed to new participants.

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PROGRAM: SOLAR REC PURCHASE PROGRAM (CASE NO 13-00390-UT STIPULATION)

Program Start:	Initially approved in Case No. 13-00390-UT Stipulation.
Project Size:	Solar systems sized up to10 kW_{AC} (Small) and sized above 10 kW_{AC} to 100 kW_{AC}.
Contract Term:	8 years. First contracts start to expire 1/1/2025
Participation:	265 participants
Installed Capacity:	2,496 kW_{AC}
Pending:	25 applications are currently pending (as of 12/31/18)
Program Status:	3 year program, applications will be accepted through 2019.

PROGRAM: CAPACITY RESERVATION PROGRAM

Program Start:	Initially approved in Case No. 11-00265-UT.
Project Size:	Solar systems sized above 100 kW_{AC} up to 1 MW_{AC}.
Contract Term:	Until December 31, 2020.

2012 Capacity Reservation

Program Start:	Approved in Case No. 11-00265-UT for calendar year 2012.
Participation:	0 participants
Installed Capacity:	0 kW_{AC}
Pending:	0 applications are pending
Program Status:	Closed to new participants.

2013 Capacity Reservation

Program Start:	Approved in Case No. 12-00131-UT for calendar year 2013.
Participation:	1 participant
Installed Capacity:	147 kW_{AC}
Program Status:	Closed to new participants.

2014 Capacity Reservation

Program Start:	Approved in Case No. 13-00183-UT for calendar year 2014.
Participation:	4 participants
Installed Capacity:	1,336 kW_{AC}
Pending:	0 applications are pending project completion and interconnection
Program Status:	Closed to new participants.

2015 Capacity Reservation

Program Start:	Approved in Case No. 14-00158-UT for calendar year 2015.
Participation:	6 participants
Installed Capacity:	1,243 kW_{AC}
Pending:	0 applications are pending project completion and interconnection
Program Status:	Closed to new participants.

2016 Capacity Reservation

Program Start:	Approved in Case No. 15-00166-UT for calendar year 2016.
Participation:	7 participants
Installed Capacity:	854 kW_{AC}
Pending:	0 applications are pending project completion and interconnection
Program Status:	Closed to new participants.

There was no 2017 Capacity Reservation Program per the Final Order in Case No. 16-00148-UT, due to RCT constraints.

2018 Capacity Reservation

Program Start:	Approved in Case No. 17-00129-UT for calendar year 2018.
Participation:	5 participants
Installed Capacity:	861 kW_{AC}
Pending:	4 applications are pending project completion and interconnection (as of 12/31/18)
Program Status:	Closed to new participants.

2019 Capacity Reservation (YTD)

Program Start:	Approved in Case No. 18-00158-UT for calendar year 2019.
Participation:	0 participants
Installed Capacity:	0 kW_{AC}
Pending:	7 applications are pending project completion and interconnection (as of 5/17/19)
Program Status:	Closed to new participants.

V. NEW PROCUREMENTS

As a part of the 2020 Plan, PNM proposes a new procurement, a PPA with La Joya Wind LLC for the output from the 140 MW La Joya II wind farm in Torrance County at a purchase price of $17.48 MWh. PNM also proposes to continue two DG programs, for systems up to 100 kW and for systems above 100 kW and up to 1 MW, that were approved by the Commission in previous PNM cases.

VI. RENEWABLE RIDER RATE FOR 2020

In Case No. 12-00007-UT the Commission authorized PNM to implement Rider 36 to recover the costs of renewable resources approved by the Commission for RPS compliance, including the costs of WREGIS registration. In Case No. 15-00261-UT the Commission authorized PNM to continue using Rider 36. The Rider 36 rate is adjusted annually, effective each January 1st to account for new Commission-approved procurements, changes in estimated revenue requirements for previously-approved procurements and projections of kWh sales, and is "reconciled" or "trued-up" in a filing, made by February 28th annually, to account for actual revenue requirements and sales during the prior year and updated projections for the then current year. Costs that are recovered in base rates or through PNM's FPPCAC are not included in the Rider 36 revenue requirement, nor are revenue requirements for any facilities that are not yet in service.

PNM projects that the revenue requirement to be recovered during 2019 through Rider 36, including WREGIS fees, will be $58,935,081. To recover these costs, PNM is requesting approval of a Rider 36 rate to be effective January 1, 2020 of $0.0070504 per kWh.

GCG#525558

PNM Exhibit SG-3

2020 Plan RPS and RCT Summary

Line	RPS Requirement	2020	2021	Line
1	Annual Retail Sales (MWh)[1]	8,805,689	9,098,400	1
2	(-) Voluntary Tariff Sales (MWh)[2]	446,579	878,062	2
3	Net Annual Retail Sales (MWh)	8,359,110	8,220,337	3
4	RPS (%)	20%	20%	4
5	RPS (MWh)	1,671,822	1,644,067	5
6	**RPS Compliance & Diversity**	**2020**	**2021**	6
7	Portfolio RECs	1,384,657	1,918,398	7
8	REC Bank from Prior Year[3]	218,554	0	8
9	Portfolio RECs plus REC Bank[4]	1,603,212	1,918,398	9
10	Portfolio REC Position[5]	(68,611)	274,331	10
11	Portfolio End of Year REC Bank[6]	0	205,720	11
12	Portfolio Percent of Annual Sales (%)	18.2%	20.0%	12
13	Portfolio Percent of RPS Goal (%)	91%	100%	13
14	Wind Diversity (%)	64%	65%	14
15	Solar Diversity (%)	24%	23%	15
16	Other Diversity (%)	5%	5%	16
17	DG Diversity (%)	7%	7%	17
18	**Portfolio Cost**	**2020**	**2021**	18
19	Portfolio Net Cost ($)[7]	$29,131,923	$25,513,254	19

Notes

1 *Includes annual retail sales and impacts due to energy efficiency and distributed generation*

2 *Includes contribution to production sales to Data Center, Sky Blue and Solar Direct voluntary programs*

3 *Excess RECs from 2019 used for 2020 compliance*

4 *Line 7 + Line 8*

5 *Line 9 minus Line 5*

6 *Line 10 from prior year + Line 10 on-year*

7 *Portfolio Net Cost is procurement cost plus avoided costs.*

PNM Exhibit SG-3

		A	B	C	D=A*(B+C)	E	F=(B+C+E)	G=(A * F)	H	I	
	2020	**MWh RECs**	**Gross Cost $/MWh-REC**	**Gross WREGIS Cost $/MWh-REC**	**Gross Cost $**	**Net Avoided Energy $/MWh-REC**	**Net Cost $/MWh-REC**	**Total Annual Net Cost $**	**% RECS**	**% Cost**	
	Utility Wind										
[1]	New Mexico Wind Energy Center[1]	604,393	$27.25	$0.010	$16,475,752	($25.18)	$2.08	$1,259,486			[1]
[2]	Red Mesa	208,223	$30.83	$0.005	$6,419,710	($25.18)	$5.65	$1,177,464			[2]
[3]	La Joya II	0			$0			$0			[3]
[4]	**Total Utility Wind**	**812,616**			**$22,895,462**			**$2,436,950**	**50.7%**	**8.4%**	[4]
	Distributed Generation										
[5]	Small PV RECs	9,971	$59.09	$0.010	$589,243	$0	$59.10	$589,243			[5]
[6]	Large PV RECs	15,881	$150.00	$0.010	$2,382,307	$0	$150.01	$2,382,307			[6]
[7]	SIP RECs $0.14 - $0.05	36,936	$85.37	$0.010	$3,153,565	$0	$85.38	$3,153,565			[7]
[8]	2012 DG Capacity Reservation	1,002	$20.00	$0.010	$20,048	$0	$20.01	$20,048			[8]
[9]	2013 DG Capacity Reservation	4,382	$20.00	$0.010	$87,681	$0	$20.01	$87,681			[9]
[10]	2014 DG Capacity Reservation	3,021	$20.00	$0.010	$60,442	$0	$20.01	$60,442			[10]
[11]	2015 DG Capacity Reservation	552	$20.00	$0.010	$11,054	$0	$20.01	$11,054			[11]
[12]	2016 DG Capacity Reservation	1,013	$14.55	$0.010	$14,742	$0	$14.56	$14,742			[12]
[13]	2018 DG Capacity Reservation	217	$2.50	$0.010	$544	$0	$2.51	$544			[13]
[14]	2019 DG Capacity Reservation	218	$2.50	$0.010	$547	$0	$2.51	$547			[14]
[15]	2020 DG Capacity Reservation	1,918	$2.50	$0.010	$4,814	$0	$2.51	$4,814			[15]
[16]	2021 DG Capacity Reservation	0	$0	$0.010	$0	$0	$0.01	$0			[16]
[17]	CSPP RECs	25,493	$34.67	$0.010	$884,101	$0	$34.68	$884,101			[17]
[18]	CSPP Extension RECs	7,450	$2.50	$0.010	$18,699	$0	$2.51	$18,699			[18]
[19]	**Total Distributed Generation**	**108,053**			**$7,227,787**			**$7,227,787**	**6.7%**	**24.8%**	[19]
	Utility Solar										
[20]	Algodones/Aztec @3:1	112	$0	$0.010	$1	($8.39)	($8.38)	($938)			[20]
[21]	2011 PNM Solar PV 22.5 MW	47,461	$83.04	$0.010	$3,941,665	($25.18)	$57.88	$2,746,794			[21]
[22]	2013 PNM Solar PV 20 MW[1]	46,295	$86.01	$0.010	$3,982,178	($25.18)	$60.84	$2,816,660			[22]
[23]	2014 PNM Solar PV 23 MW	60,346	$71.02	$0.010	$4,286,080	($25.18)	$45.85	$2,766,808			[23]
[24]	2015 PNM Solar PV 40 MW	92,775	$0	$0.010	$928	$0	$0.01	$928			[24]
[25]	2019 PNM Solar PV 50 MW	140,000	$67	$0.010	$9,373,657	($25.18)	$41.78	$5,849,001			[25]
[26]	**Total Utility Solar**	**386,988**			**$21,584,509**			**$14,179,253**	**24.1%**	**48.7%**	[26]
	Utility "Other"										
[27]	Dale Burgett Geothermal PPA	77,000	$93.51	$0.005	$7,200,318	($25.18)	$68.33	$5,261,757			[27]
[28]	**Total Utility "Other"**	**77,000**			**$7,200,318**			**$5,261,757**	**4.8%**	**18.1%**	[28]
	REC Bank for RPS										
[29]	2019 Vintage RECs	218,554	-	$0.005	$1,093	-	$0.01	$1,093			[29]
[30]	**RECs Used for RPS**	**218,554**			**$1,093**			**$1,093**	**13.6%**	**0.0%**	[30]
[31]	**Total 2020 Resources[2]**	**1,603,212**			**$58,934,252**			**$29,131,923**			[31]
[32]	**2020 Net Cost ($)**							**$29,131,923**	**100.0%**	**100.0%**	[32]
[33]	**Average Net Cost ($/MWh-REC)**							**$18.17**			[33]
[34]	**Average Gross Cost ($/MWh-REC)**							**$36.76**			[34]
[35]	**RPS Compliance Goal (%)**							**20.0%**			[35]
[36]	**2020 RPS Compliance (%)**							**19.2%**			[36]

[37] *Notes:*

[38] *1). Projected energy accounts for allocation to PNM Sky Blue Program.*

[39] *2). Includes $25,000 of Renewable Filing Costs and WREGIS Annual Fee of $83*

PNM Exhibit SG-3

		A	B	C	D=A*(B+C)	E	F=(B+C+E)	G=(A * F)	H	I	
	2021	**RECs MWh**	**Gross Cost $/MWh-REC**	**Gross WREGIS Cost $/MWh-REC**	**Gross Cost $**	**Net Avoided Energy $/MWh-REC**	**Net Net Cost $/MWh-REC**	**Total Annual Net Cost $**	**% RECS**	**% Cost**	
	Utility Wind										
[1]	New Mexico Wind Energy Center[1]	604,377	$27.25	$0.010	$16,475,317	($25.00)	$2.26	$1,364,344			[1]
[2]	Red Mesa	208,223	$31.44	$0.005	$6,548,083	($25.00)	$6.44	$1,341,975			[2]
[3]	La Joya II	537,163	$17.48	$0.005	$9,392,295	($25.00)	($7.52)	($4,038,156)			[3]
[4]	**Total Utility Wind**	**1,349,763**			**$32,415,695**			**($1,331,837)**	**78.8%**	**-5.2%**	[4]
	Distributed Generation										
[5]	Small PV RECs	0	$0	$0.010	$0	$0	$0.01	$0			[5]
[6]	Large PV RECs	15,802	$150.00	$0.010	$2,370,396	$0	$150.01	$2,370,396			[6]
[7]	SIP RECs $0.14 - $0.05	36,751	$85.37	$0.010	$3,137,797	$0	$85.38	$3,137,797			[7]
[8]	2012 DG Capacity Reservation	997	$20.00	$0.010	$19,948	$0	$20.01	$19,948			[8]
[9]	2013 DG Capacity Reservation	4,360	$20.00	$0.010	$87,242	$0	$20.01	$87,242			[9]
[10]	2014 DG Capacity Reservation	3,005	$20.00	$0.010	$60,139	$0	$20.01	$60,139			[10]
[11]	2015 DG Capacity Reservation	550	$20.00	$0.010	$10,999	$0	$20.01	$10,999			[11]
[12]	2016 DG Capacity Reservation	1,008	$14.55	$0.010	$14,668	$0	$14.56	$14,668			[12]
[13]	2018 DG Capacity Reservation	216	$2.50	$0.010	$541	$0	$2.51	$541			[13]
[14]	2019 DG Capacity Reservation	217	$2.50	$0.010	$544	$0	$2.51	$544			[14]
[15]	2020 DG Capacity Reservation	3,816	$2.50	$0.010	$9,579	$0	$2.51	$9,579			[15]
[16]	2021 DG Capacity Reservation	1,918	$2.50	$0.010	$4,814	$0	$2.51	$4,814			[16]
[17]	CSPP RECs	25,366	$34.67	$0.010	$879,680	$0	$34.68	$879,680			[17]
[18]	CSPP Extension RECs	13,163	$2.50	$0.010	$33,038	$0	$2.51	$33,038			[18]
[19]	**Total Distributed Generation**	**107,168**			**$6,629,387**			**$6,629,387**	**6.3%**	**26.0%**	[19]
	Utility Solar										
[20]	Algodones/Aztec @3:1	111	$0	$0.010	$1	($8.33)	($8.32)	($922)			[20]
[21]	2011 PNM Solar PV 22.5 MW	47,220	$95.58	$0.010	$4,513,944	($25.00)	$70.59	$3,333,316			[21]
[22]	2013 PNM Solar PV 20 MW[1]	46,063	$86.01	$0.010	$3,962,267	($25.00)	$61.02	$2,810,571			[22]
[23]	2014 PNM Solar PV 23 MW	60,044	$71.02	$0.010	$4,264,650	($25.00)	$46.02	$2,763,395			[23]
[24]	2015 PNM Solar PV 40 MW	92,080	$0	$0.010	$921	$0	$0.01	$921			[24]
[25]	2019 PNM Solar PV 50 MW	138,950	$67	$0.010	$9,303,355	($25.00)	$41.95	$5,829,249			[25]
[26]	**Total Utility Solar**	**384,468**			**$22,045,137**			**$14,736,530**	**22.4%**	**57.8%**	[26]
	Utility "Other"										
[27]	Dale Burgett Geothermal PPA	77,000	$95.84	$0.005	$7,380,316	($25.00)	$70.85	$5,455,119			[27]
[28]	**Total Utility "Other"**	**77,000**			**$7,380,316**			**$5,455,119**	**4.5%**	**21.4%**	[28]
	REC Bank for RPS										
[29]	2021 Vintage RECs	(205,720)		$0.005	($1,029)		$0.01	($1,029)			[29]
[30]	**RECs Used for RPS**	**(205,720)**			**($1,029)**			**($1,029)**	**-12.0%**	**0.0%**	[30]
[31]	**Total 2021 Resources**	**1,712,678**			**$68,494,590**			**$25,513,254**			[31]
[32]	**2021 Net Cost ($)**							**$25,513,254**	**100.0%**	**100.0%**	[32]
[33]	**Average Net Cost ($/MWh-REC)**							**$14.90**			[33]
[34]	**Average Gross Cost ($/MWh-REC)**							**$39.99**			[34]
[35]	**RPS Compliance Goal (%)**							**20.0%**			[35]
[36]	**2021 RPS Compliance (%)**							**20.8%**			[36]

[37] *Notes:*

[38] *1). Projected energy accounts for allocation to PNM Sky Blue Program.*

[39] *2). Includes $25,000 of Renewable Filing Costs and WREGIS Annual Fee of $83*

PNM Exhibit SG-3
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BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF PUBLIC SERVICE COMPANY OF NEW MEXICO'S APPLICATION FOR APPROVAL OF ITS RENEWABLE ENERGY ACT PLAN FOR 2020 AND PROPOSED 2020 RIDER RATE UNDER RATE RIDER NO. 36	)	**Case No. 19-00___-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO	)	
Petitioner.	)	

AFFIDAVIT

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

SHANE GUTIERREZ, Engineer IV in Public Service Company of New Mexico's Planning and Resources Department, upon being duly sworn according to law, under oath, deposes and states: I have read the foregoing **Direct Testimony of Shane Gutierrez** and it is true and correct based on my personal knowledge and belief.

SIGNED this 24 day of May, 2019.

SHANE GUTIERREZ

SUBSCRIBED AND SWORN to before me this 24th day of May, 2019.

NOTARY PUBLIC IN AND FOR
THE STATE OF NEW MEXICO

My Commission Expires:

OFFICIAL SEAL
Ronda Morehead
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 7/5/19

GCG # 525516