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 2021 AND PROPOSED 2021 RIDER RATE UNDER RATE RIDER NO. 36,	)	**Case No. 20-00___-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant.	)	

DIRECT TESTIMONY

OF

SHANE GUTIERREZ

June 1, 2020

NMPRC CASE NO. 20-00_____-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. 20-00_____-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 ("PNM"), 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 2021 and 2022;
- Demonstrates that the 2021 Plan meets the requirements of the Renewable Energy Act, NMSA 1978, §§ 62-16-1 to -10 ("REA"), and the applicable

requirements of Commission Rule 17.9.572 NMAC ("Rule 572"), in 2021 and 2022, 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 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, 2021, and the next plan year, 2022.

II. PLAN YEAR (2021) RPS COMPLIANCE

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

A. Pursuant to Rule 572.10 and Section 62-16-4(A) of the REA, the RPS requirement for 2021 is 20% of retail sales in 2021. PNM's projected retail sales in 2021 are 8,894,850 MWh. Section 6(B)(2) of the REA requires PNM to reduce total projected retail sales for sales under a Commission-approved voluntary program for purposes of calculating the RPS. PNM currently offers two voluntary renewable energy programs: PNM's 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. Additionally, a third voluntary program, Solar Direct, which was approved by the Commission in Case No. 19-00158-UT, will begin in April 2021. After reducing the retail sales projection by 970,388 MWh for sales under these three voluntary programs, PNM's sales subject to the RPS are 7,924,462 MWh. The RPS requirement is therefore equal to 20% of those sales, or 1,584,892 MWh. Please see PNM Exhibit SG-2 for a detailed calculation of the 2021 RPS.

Q. WILL PNM'S EXISTING RENEWABLE RESOURCES PROVIDE SUFFICIENT MWH-RECS TO MEET THE RPS IN 2021?

A. Yes. PNM anticipates exceeding its 2021 RPS requirements by 331,995 MWh-RECs, as shown on page 2, line 32, in PNM Exhibit SG-2, utilizing existing renewable procurements and the addition of the La Joya II wind facility. The actual surplus will depend on actual renewable production, actual retail sales, and participation in PNM's voluntary renewable energy programs.

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

A. Total net costs for 2021 are $40,788,444, as shown on page 1, line 14 of PNM Exhibit SG-2. Page 2 of PNM Exhibit SG-2 further details the resources and their projected costs for 2021. PNM witness Thomas Baker provides the 2021 revenue requirements for the portfolio in his direct testimony.

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

A. I describe the specific renewable resources in more detail later in my testimony. The portfolio will be comprised of 71% wind, 20% solar, 4% "other" and 5% distributed generation as defined in Rule 572.7(G) before any REC banking projections are accounted for. The components above are rounded to the nearest percentage.

III. NEXT PLAN YEAR (2022) RPS COMPLIANCE

Q. WHAT IS PNM'S PROJECTED RPS REQUIREMENT FOR 2022?

A. PNM's projected retail sales in 2022 are 9,140,217 MWh. After reducing the retail sales projection by 1,212,886 MWh for sales under voluntary programs, PNM's sales subject to the RPS are 7,927,331 MWh. The RPS requirement is therefore equal to 20% of those sales, or 1,585,466 MWh. Please see PNM Exhibit SG-2 for a detailed calculation of the 2022 RPS.

Q. WILL PNM'S EXISTING RENEWABLE RESOURCES PROVIDE SUFFICIENT MWH-RECS TO MEET THE RPS IN 2022?

A. Yes. PNM anticipates meeting its 2022 RPS requirements with an excess of 824,472 MWh-RECs, as shown on page 3, line 32, in PNM Exhibit SG-2, utilizing existing renewable procurements, the La Joya II facility, and the 50 MW Jicarilla I Solar PV system resource and the 300 MW Arroyo Solar PV system resource

proposed in Case No. 19-00159-UT. The large excess REC position for 2022 is mainly due to the addition of the Jicarilla and Arroyo system resources providing almost 500,000 RECs to PNM's portfolio. PNM intends to bank excess RECs to help meet future RPS compliance, especially in 2025 when PNM's requirement doubles to 40% of retail sales. The actual REC surplus will depend on actual renewable production, actual retail sales, and participation in PNM's voluntary renewable energy programs.

Q. WHAT ARE THE PROJECTED COSTS OF PNM'S PORTFOLIO OF RPS RESOURCES IN 2022?

A. Total net costs for 2022 are $49,595,480 , as shown on page 1, line 14 of PNM Exhibit SG-2. Page 3 of PNM Exhibit SG-2 further details the resources and their projected costs for 2022.

Q. WHAT TYPES OF RESOURCES WILL COMPRISE PNM'S RPS PORTFOLIO IN 2022?

A. I describe the specific renewable resources in more detail below. The portfolio will be 56% wind, 36% solar, 3% "other" and 4% distributed generation as defined in Rule 572.7(G) before any REC banking projections are accounted for. The components above are rounded to the nearest percentage.

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 for RPS compliance include wind, solar PV, geothermal energy, and purchases of kWh-RECs associated with customer-sited solar PV facilities on PNM's system. REC projections and cost information for these resources is provided on pages 2 and 3 in PNM Exhibit SG-2.

Q. WHAT ARE PNM'S EXISTING WIND RESOURCES?

A. PNM has three existing sources of wind generation:

1) PNM has a power purchase agreement ("PPA") for all 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.
2) 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 2021 and 2022.
3) PNM has a PPA for the entire output of the new La Joya II wind facility located in Torrance County, New Mexico. La Joya II is expected to reach

commercial operation in December 2020. Energy production from La Joya II is expected to be 537,163 MWh in 2021 and 2022.

Q. WHAT ARE PNM'S EXISTING SOLAR RPS RESOURCES?

A. PNM owns 117 MW of solar photovoltaic ("PV") generation that has been procured solely to meet RPS compliance. The 117 MW of 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 46,469 MWh in 2021 and 46,234 MWh 2022.[1]

b) Energy produced by 21.5 MW of solar PV facilities that became operational in 2013 ("2013 PNM Solar PV"). PNM allocates the energy produced from 1.5 MW of the 21.5 MW of 2013 PNM Solar PV to PNM's Sky Blue program. The energy production from 20 MW of the 2013 PNM Solar PV is projected to be 45,314 MWh in 2021 and 45,087 MWh in 2022[2].

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 59,959 MWh in 2021 and 59,659 MWh in 2022[3].

[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.

d) 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 80 MWh in 2021 and 79 MWh in 2022.[4]

e) Energy produced by 50 MW of solar PV facilities that became operational in 2019 ("2019 PNM Solar PV"). The energy production from the 2019 PNM Solar PV is projected to be 138,950 MWh in 2021 and 137,908 MWh in 2022.[5]

Q. WHAT SYSTEM RESOURCES IS PNM USING FOR RPS COMPLIANCE?

A. PNM has procured 40 MW of PNM owned solar PV resources pursuant to a stipulation in Case No. 14-00158-UT. PNM expects to add 350 MW of solar PV to its portfolio, which is pending approval in Case No. 19-00195-UT. These 390 MW of system resources are described in more detail below:

a) PNM uses RECs produced by 40 MW of solar PV facilities that became operational in 2015 ("2015 PNM Solar PV") for RPS compliance. The energy production from the 2015 PNM Solar PV is projected to be 95,468 MWh in 2021 and 94,752 MWh in 2022.[6]

b) PNM has a PPA for all the output from the 50 MW Jicarilla Solar I facility that is expected to become operational by April 30, 2022. PNM

[4] PNM assumes that production will decline 1.0% annually due to degradation of these solar PV panels.
[5] PNM assumes that production will decline 0.5% annually due to degradation of these solar PV panels.
[6] PNM assumes that production will decline 0.75% annually due to degradation of these solar PV panels.

is awaiting approval of this PPA in Case No. 19-00195-UT. The energy production from the Jicarilla Solar I facility is projected to be 96,809 MWh in 2022.

c) PNM has a PPA for all the output from the 300 MW Arroyo Solar facility that is expected to become operational by June 30, 2022. PNM is awaiting approval of this PPA in Case No. 19-00195-UT. The energy production from the Arroyo Solar facility is projected to be 394,598 MWh in 2022.

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 located near Lordsburg, New Mexico. Energy production from this facility is projected to be 77,000 MWh in 2021 and in 2022.

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 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 2022 in Case No. 19-00159-UT. PNM projects that these programs collectively will generate 102,156 MWh-RECs in 2021 and 105,765 MWh-RECs in 2022.

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 $0.004 per MWh-REC for certificate issuance or transfer and $0.004 per MWh-REC for retirement, for a total fee of $0.008 per MWh-REC. For the Red Mesa and Lightning Dock resources, PNM only incurs the cost to retire MWh-RECs from those facilities as those RECs are transferred to PNM, thus only $0.004 per MWh-REC is applied. Additionally, PNM applies the WREGIS fee for MWh-REC retirement only in the year that RECs or banked RECs are used for RPS compliance.

Q. DID PNM CONDUCT AN ANALYSIS TO DETERMINE ANY COST SAVINGS FOR AVOIDED ENERGY FROM ITS PORTFOLIO OF RPS COMPLIANCE RESOURCES?

A. Yes, PNM did such an analysis for informational purposes only. Rule 572.14(C) requires electric public utilities to perform such an analysis for the purpose of demonstrating compliance with the reasonable cost threshold ("RCT") defined in Rule 572. However, as PNM witness Nicholas Phillips explains, PNM is requesting a variance from complying with the RCT as defined in Rule 572 because the definition has been superseded by an amendment to the REA. Accordingly, the avoided energy analysis is provided here for informational purposes, and not for RCT compliance.

PNM performed an EnCompass simulation with and without all existing owned and purchased resources in 2021 and 2022. PNM compared the cost savings between the two cases and applied those savings to the portfolio gross costs to determine the Net Portfolio Costs shown on page 1, line 14 of PNM Exhibit SG-2.

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.

PNM witness Phillips addresses the remaining Case No. 18-00158-UT reporting requirements in his direct testimony.

Q. WHAT WAS LIGHTNING DOCK'S PRODUCTION IN 2019 AND THE FIRST THREE MONTHS OF 2020?

A. Lightning Dock's production for calendar year 2019 was 58,092 MWh. Production for calendar year 2019 was very close to the developer's estimate of 55,000 MWh. Lightning Dock's production through March of 2020 was 16,331 MWh. PNM Witness Phillips provides more information about Lightning Dock's 2020 production in his testimony.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

GCG#526915

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.

- In the Matter of Public Service Company of New Mexico's Renewable Energy Portfolio Procurement Plan for 2020 And Proposed 2020 Rider Rate under Rate Rider No. 36, Case No. 19-00159-UT, filed June 3, 2019.

PNM Exhibit SG-2

Line	2021 Plan RPS and RCT Summary			Line
	RPS Requirement	**2021**	**2022**	
1	Annual Retail Sales (MWh)	8,894,850	9,140,217	1
2	(-) Voluntary Tariff Sales (MWh)	970,388	1,212,886	2
3	Net Annual Retail Sales (MWh)	7,924,462	7,927,331	3
4	RPS (%)	20%	20%	4
5	RPS (MWh)	1,584,892	1,585,466	5
	RPS Compliance & Diversity	**2021**	**2022**	
6	Portfolio RECs	1,584,892	1,585,466	6
7	Portfolio REC Shortfall	0	0	7
8	Portfolio Percent of Annual Sales (%)	20.0%	20.0%	8
9	Portfolio Percent of RPS Goal (%)	100%	100%	9
10	Wind Diversity (%)	71%	56%	10
11	Solar Diversity (%)	20%	36%	11
12	Other Diversity (%)	4%	3%	12
13	DG Diversity (%)	5%	4%	13
	Portfolio Cost	**2021**	**2022**	
14	Net Portfolio Cost ($)	$40,788,444	$49,595,480	14

Notes for Numbered Rows

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

2 *Includes sum of lesser of voluntary customer sales or renewable production*

3 *Line 1 - Line 2*

4 *Renewable Portfolio Standard goal*

5 *Line 3 x Line 4*

6 *Annual Sum of projected RECs for PNM's portfolio for RPS Compliance*

7 *Line 5 - Line 6*

8 *Line 6 ÷ Line 3*

9 *Line 6 ÷ Line 5*

10 *Sum of Wind RECs divided by Portfolio RECs*

11 *Sum of Solar RECs divided by Portfolio RECs*

12 *Sum of Other RECs divided by Portfolio RECs*

13 *Sum of DG RECs divided by Portfolio RECs*

14 *Sum of portfolio procurement costs, including WREGIS fees, net of avoided costs*

		A	B	C	D=B+C	E=A*D	F	G	
	2021	**MWh RECs**	**Cost $/MWh-REC**	**WREGIS Cost $/MWh-REC**	**Total Cost $/MWh-REC**	**Total Cost $**	**% RECS**	**% Cost**	
	Utility Wind								
[1]	New Mexico Wind Energy Center1	606,106	$27.25	$0.008	$27.26	$16,521,228			[1]
[2]	Red Mesa	208,223	$31.44	$0.004	$31.45	$6,547,875			[2]
[3]	La Joya II	537,163	$17.48	$0.004	$17.48	$9,391,758			[3]
[4]	**Total Utility Wind**	**1,351,492**				**$32,460,861**	**85.3%**	**49.6%**	[4]
	Distributed Generation								
[5]	Small PV RECs	5,484	$0.00	$0.008	$0.01	$44			[5]
[6]	Large PV RECs	15,844	$150.00	$0.008	$150.01	$2,376,781			[6]
[7]	SIP RECs $0.14 - $0.05	34,658	$85.63	$0.008	$85.64	$2,968,035			[7]
[8]	2012 DG Capacity Reservation	989	$20.00	$0.008	$20.01	$19,789			[8]
[9]	2013 DG Capacity Reservation	3,821	$20.00	$0.008	$20.01	$76,441			[9]
[10]	2014 DG Capacity Reservation	3,324	$20.00	$0.008	$20.01	$66,497			[10]
[11]	2015 DG Capacity Reservation	533	$20.00	$0.008	$20.01	$10,657			[11]
[12]	2016 DG Capacity Reservation	974	$11.46	$0.008	$11.47	$11,175			[12]
[13]	2018 DG Capacity Reservation	228	$2.50	$0.008	$2.51	$573			[13]
[14]	2019 DG Capacity Reservation	218	$2.50	$0.008	$2.51	$547			[14]
[15]	2020 DG Capacity Reservation	1,918	$2.50	$0.008	$2.51	$4,810			[15]
[16]	2021 DG Capacity Reservation	0	$0.00	$0.008	$0.01	$0			[16]
[17]	2022 DG Capacity Reservation	0	$0.00	$0.008	$0.01	$0			[17]
[18]	CSPP RECs	23,425	$34.55	$0.008	$34.56	$809,565			[18]
[19]	CSPP Extension	10,741	$2.50	$0.008	$2.51	$26,938			[19]
[20]	**Total Distributed Generation**	**102,156**				**$6,371,851**	**6.4%**	**9.7%**	[20]
	Utility Solar								
[21]	Algodones/Aztec @3:1	80	$0	$0.008	$0.01	$1			[21]
[22]	2011 PNM Solar PV 22.5 MW	46,469	$106.29	$0.008	$106.29	$4,939,312			[22]
[23]	2013 PNM Solar PV 20 MW1	45,314	$69.80	$0.008	$69.80	$3,163,054			[23]
[24]	2014 PNM Solar PV 23 MW	59,959	$59.63	$0.008	$59.64	$3,576,112			[24]
[25]	2015 PNM Solar PV 40 MW	95,468	$0	$0.008	$0.01	$764			[25]
[26]	2019 PNM Solar PV 50 MW	138,950	$54.23	$0.008	$54.23	$7,535,886			[26]
[27]	Jicarilla Solar I PPA 50 MW	0	$0	$0.008	$0.01	$0			[27]
[28]	Arroyo Solar PPA 300 MW	0	$0	$0.008	$0.01	$0			[28]
[29]	**Total Utility Solar**	**386,239**				**$19,215,129**	**24.4%**	**29.4%**	[29]
	Utility "Other"								
[30]	Dale Burgett Geothermal PPA	77,000	$95.84	$0.004	$95.85	$7,380,239			[30]
[31]	**Total Utility "Other"**	**77,000**				**$7,380,239**	**4.9%**	**11.3%**	[31]
	REC Bank for RPS								
[32]	2021 Vintage RECs	(331,995)	$0	$0.004	$0.00	($1,328)	**-20.9%**	**0.0%**	[32]
[33]	**RECs Used for RPS**	**(331,995)**							[33]
[34]	**2021 Total Production & Costs**	**1,584,892**				**$65,426,752**	**100.0%**	**100.0%**	[34]
[35]	**2021 Filing Costs & Fees ($)**					**$25,083**			[35]
[36]	**2021 Avoided Costs ($)**					**$24,663,392**			[36]
[37]	**2021 Portfolio Net Costs ($)**					**$40,788,444**			[37]
[38]	**2021 Average Net Cost ($/MWh-REC)**					**$25.74**			[38]
[39]	**2021 RPS Compliance Goal (%)**					**20.0%**			[39]
[40]	**2021 RPS Compliance (%)**					**20.0%**			[40]

		A	B	C	D = B + C	E = A * D	F	G	
	2022	**MWh RECs**	**Cost $/MWh-REC**	**WREGIS Cost $/MWh-REC**	**Total Cost $/MWh-REC**	**Total Cost $**	**% RECS**	**% Cost**	
	Utility Wind								
[1]	New Mexico Wind Energy Center1	606,661	$27.25	$0.008	$27.26	$16,536,377			[1]
[2]	Red Mesa	208,223	$32.07	$0.004	$32.08	$6,678,816			[2]
[3]	La Joya II	537,163	$17.48	$0.004	$17.48	$9,391,758			[3]
[4]	**Total Utility Wind**	**1,352,047**				**$32,606,951**	**85.3%**	**50.2%**	[4]
	Distributed Generation								
[5]	Small PV RECs	0	$0.00	$0.008	$0.01	$0			[5]
[6]	Large PV RECs	15,765	$150.00	$0.008	$150.01	$2,364,897			[6]
[7]	SIP RECs $0.14 - $0.05	34,485	$85.63	$0.008	$85.64	$2,953,195			[7]
[8]	2012 DG Capacity Reservation	984	$20.00	$0.008	$20.01	$19,690			[8]
[9]	2013 DG Capacity Reservation	3,801	$20.00	$0.008	$20.01	$76,058			[9]
[10]	2014 DG Capacity Reservation	3,307	$20.00	$0.008	$20.01	$66,164			[10]
[11]	2015 DG Capacity Reservation	530	$20.00	$0.008	$20.01	$10,604			[11]
[12]	2016 DG Capacity Reservation	969	$11.46	$0.008	$11.47	$11,119			[12]
[13]	2018 DG Capacity Reservation	227	$2.50	$0.008	$2.51	$570			[13]
[14]	2019 DG Capacity Reservation	217	$2.50	$0.008	$2.51	$544			[14]
[15]	2020 DG Capacity Reservation	3,816	$2.50	$0.008	$2.51	$9,572			[15]
[16]	2021 DG Capacity Reservation	1,918	$2.50	$0.008	$2.51	$4,810			[16]
[17]	2022 DG Capacity Reservation	0	$0.00	$0.008	$0.01	$0			[17]
[18]	CSPP RECs	23,308	$34.55	$0.008	$34.56	$805,518			[18]
[19]	CSPP Extension	16,437	$2.50	$0.008	$2.51	$41,224			[19]
[20]	**Total Distributed Generation**	**105,765**				**$6,363,965**	**6.7%**	**9.8%**	[20]
	Utility Solar								
[21]	Algodones/Aztec @3:1	79	$0	$0.008	$0.01	$1			[21]
[22]	2011 PNM Solar PV 22.5 MW	46,234	$100.83	$0.008	$100.84	$4,662,031			[22]
[23]	2013 PNM Solar PV 20 MW1	45,087	$68.41	$0.008	$68.42	$3,085,008			[23]
[24]	2014 PNM Solar PV 23 MW	59,659	$58.62	$0.008	$58.63	$3,497,758			[24]
[25]	2015 PNM Solar PV 40 MW	94,752	$0	$0.008	$0.01	$758			[25]
[26]	2019 PNM Solar PV 50 MW	137,908	$52.14	$0.008	$52.14	$7,191,135			[26]
[27]	Jicarilla Solar I PPA 50 MW	96,809	$0	$0.008	$0.01	$774			[27]
[28]	Arroyo Solar PPA 300 MW	394,598	$0.00	$0.008	$0.01	$3,157			[28]
[29]	**Total Utility Solar**	**875,126**				**$18,440,623**	**55.2%**	**28.4%**	[29]
	Utility "Other"								
[30]	Dale Burgett Geothermal PPA	77,000	$98.24	$0.004	$98.24	$7,564,738			[30]
[31]	**Total Utility "Other"**	**77,000**				**$7,564,738**	**4.9%**	**11.6%**	[31]
	REC Bank for RPS								
[32]	2022 Vintage RECs	(824,472)	$0	$0.004	$0.00	($3,298)	**-52.0%**	**0.0%**	[32]
[33]	**RECs Used for RPS**	**(824,472)**							[33]
[34]	**2022 Total Production & Costs**	**1,585,466**				**$64,972,978**	**100.0%**	**100.0%**	[34]
[35]	**2022 Filing Costs & Fees ($)**					**$25,083**			[35]
[36]	**2022 Avoided Costs ($)**					**$15,402,581**			[36]
[37]	**2022 Portfolio Net Costs ($)**					**$49,595,480**			[37]
[38]	**2022 Average Net Cost ($/MWh-REC)**					**$31.28**			[38]
[39]	**2022 RPS Compliance Goal (%)**					**20.0%**			[39]
[40]	**2022 RPS Compliance (%)**					**20.0%**			[40]

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF PUBLIC SERVICE COMPANY OF NEW MEXICO'S RENEWABLE ENERGY ACT PLAN FOR 2021 AND PROPOSED 2021 RIDER RATE UNDER RATE RIDER NO. 36,	)	**Case No. 20-00____-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant.	)	

SELF AFFIRMATION

SHANE GUTIERREZ, Engineer IV upon penalty of perjury under the laws of the State of New Mexico, affirm and state: I have read the foregoing **Direct Testimony of Shane Gutierrez** and it is true and correct based on my personal knowledge and belief.

GIVEN AND SIGNED this 29th day of May, 2020.

/s/ Shane Gutierrez
SHANE GUTIERREZ

GCG # 526914