

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE PUBLIC SERVICE COMPANY)
OF NEW MEXICO'S REVISED RENEWABLE ENERGY)
PORTFOLIO PROCUREMENT PLAN FOR 2012,)
PUBLIC SERVICE COMPANY OF NEW MEXICO,)
Petitioner.)

Case No. 11-00265-UT

**DIRECT TESTIMONY OF
R. DWIGHT LAMBERSON**

ON BEHALF OF

UTILITY DIVISION STAFF

October 3, 2011

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NEW MEXICO
PUBLIC REGULATION
COMMISSION

DIRECT TESTIMONY OF R. DWIGHT LAMBERSON
CASE NO. 11-00265-UT

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 **A.** My name is R. Dwight Lamberson. My business address is the New Mexico Public Regulation
3 Commission (“NMPRC” or “Commission”), 1120 Paseo De Peralta, Santa Fe, New Mexico
4 87504.

5

6 **Q. WHAT IS YOUR POSITION WITH THE NMPRC?**

7 **A.** I am a Utility Economist in the Accounting Bureau in the NMPRC Utility Division.

8

9 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL**
10 **EXPERIENCE.**

11 **A.** I received a Master of Science degree in Regional and Resource Economics from New Mexico
12 State University in 1982. I also received a Bachelor of Science degree in Environmental and
13 Resource Economics from New Mexico State University. I have been employed by the
14 Commission since January 2008.

15

16 My experience includes 27 years of gas and electric utility industry employment at the New
17 Mexico Public Regulation Commission, Public Service Company of New Mexico (“PNM” or
18 “Company”), and Plains Electric Generation and Transmission Cooperative, Inc. My experience
19 spans the areas of financial forecasting, financial analysis, corporate strategy, wholesale power
20 marketing, rate case filings, litigation, financial modeling, budgeting, capital budgeting and
21 generation planning activities, as well as regulatory and accounting activities. My resume is
22 attached as Staff Exhibit RDL-1.

23

24 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY BEFORE THE COMMISSION?**

25 **A.** Yes. Please see Appendix A for a list of cases in which I have provided testimony or affidavits.

26

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

2 **A.** Staff's testimony will review the PNM 2012 Plan as proposed, including the Alternate Portfolios
3 and RCT calculations used to justify the waiver and variance requests.

4
5 **Q. IDENTIFY THE DOCUMENTS YOU HAVE REVIEWED IN PREPARATION OF YOUR
6 TESTIMONY IN THIS PROCEEDING.**

7 **A.** Staff has reviewed the Company's Renewable Energy Portfolio Procurement Plan for 2012, the
8 direct testimony and exhibits of PNM witnesses Gerard T. Ortiz, Cynthia D. Bothwell, Kumiko
9 Styes and Larry Blank. Staff also reviewed the discovery provided by PNM in response to REIA's
10 request.

11
12 **Q. WHAT APPROVALS DID PNM INITIALLY REQUEST IN THIS CASE?**

13 **A.** PNM's proposed 2012 Plan includes the following requests for a waiver and variances;
14 1. Waiver of the RPS for 2012 because compliance would exceed the Reasonable Cost
15 Threshold ("RCT").
16 2. PNM also requests a variance from the RCT for 2012 in order to accommodate growth in
17 the Solar REC Incentive Program ("SIP").
18 3. PNM requests a variance from diversity requirements of Rule 572, as PNM maintains it
19 is unable to procure "other" resources by 2012.

20 PNM is also requesting approvals for:

21 1. Procurement and cost recovery of the City of Santa Fe hydro RECs.
22 2. Recovery of \$263,416 for costs associated with billing system improvements to
23 accommodate third party REC transactions.
24 3. Procurement and cost recovery of revisions to the customer-sited DG programs for
25 systems larger than 100 kW after the current program is fully subscribed.

26

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1 **Q. DID PNM PROVIDE ALTERNATIVE PORTFOLIOS AS OPTIONS?**

2 **A.** Yes. For informational purposes, PNM provided two options or alternate portfolios along with its
3 proposed plan. The first option, Alternate Portfolio 1, is a proposal for RPS quantity compliance,
4 but is not diversity compliant, disregarding the RCT limitation as PNM calculates the RCT. The
5 second option, Alternate Portfolio 2, provides for both RPS quantity compliance and diversity
6 compliance, disregarding the RCT limitations as PNM calculates the RCT.

7

8 **Q. PLEASE SUMMARIZE STAFF’S RECOMMENDATIONS IN THIS CASE.**

9 **A.** Staff recommends the following regarding PNM’s specific requests.

10 1. Waiver of the RPS for 2012, compliance would exceed the RCT: Staff recommends that
11 the Commission use an alternate RCT calculation, in which case no waiver would be
12 necessary and PNM could be required to begin a path of development of renewable
13 resources to allow the Company to achieve its 2015 RPS quantity and diversity
14 requirements. Staff believes that the PNM RCT calculation is restrictive; and, for
15 purposes of resolving this case, the Commission can utilize either the RCT calculation
16 methodology used by El Paso Electric Company and Southwestern Public Service
17 Company or the RCT methodology proposed by Staff. Both alternative RCT calculation
18 methodologies are addressed below.

19

20 2. Variance from the RCT for 2012 in order to accommodate the Solar REC Incentive
21 Program (“SIP”) growth and hydro REC incentive purchases: Staff does not believe that
22 the request for a variance from the RCT for limited purposes is necessary. Based on two
23 alternative RCT calculation methodologies provided by Staff, such a variance is
24 unnecessary as those methodologies show that PNM does not exceed the RCT. A
25 variance is only necessary if the Commission accepts the limiting methodology proposed
26 by the Company.

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3. Variance from Rule 572's diversity requirements, as PNM is unable to procure "other" resources by 2012: Staff recommends that the Commission grant a variance only if an alternate RCT calculation is utilized, as proposed in item 1, above, and the Company commits to a plan that provides for the development of renewable resources to allow the Company to achieve its 2015 RPS and diversity requirements.

4. Approval of procurement and cost recovery hydro RECs from the City of Santa Fe: Staff recommends the Commission approve this project and allow PNM to recover costs of the associated RECs

5. Recovery of \$263,416 for costs associated with billing system improvements: Staff does not believe this to be a prudent expense, the cost exceeds the benefit. It is imperative that the Company be held accountable to providing service at reasonable cost, this expense is onerous, particularly since the benefit is to a very limited number of customers. While Staff maintains this is an imprudent expense, if the Commission does approve cost recovery, Staff recommends that the costs be included for recovery in base rates, not impacting the RCT and further limiting the development of renewable.

6. Procurement and cost recovery of revisions to the customer sited DG programs for systems larger than 100 kW after the current program is fully subscribed: Staff does not oppose cost recovery of the DG programs, but proposes significant changes to the nature of the limitations of the tranche sizes, and pricing for all DG REC incentive programs as described in my testimony.

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1 **Q. DOES PNM'S 2012 PLAN PROVIDE ADEQUATE RESOURCES TO SATISFY PNM'S**
2 **2012 RPS?**

3 **A.** No. The information provided by PNM in its application in Table 1, p. 6, provides PNM's
4 estimated retail sales volume for 2012 and 2013. PNM, however, based its projected 2012 RPS
5 targets and procurements on its 2010 sales volumes. In doing so, PNM has targeted sales
6 volumes below those required for its 2012 RPS, according to NMSA 1978, 62.16.4.A.1.b, or 10
7 percent of its 2012 retail sales; and, accordingly, PNM would fall short of its required 2012 RPS
8 goals. Staff Exhibit RDL – 2 shows PNM's 2012 and 2013 diversity and RPS requirements
9 based on the data provided by PNM for 2012 and 2013.

10

11 **Q. WHAT ARE THE PNM RPS REC REQUIREMENTS NECESSARY TO SATISFY**
12 **PNM'S 2012 PLAN?**

13 **A.** PNM is required to provide 10% of its 2012 and 2013 retail sales volumes less adjustments for
14 large customers. The table below shows what those volumes would be based on PNM estimates.

15

PNM RPS Filing - MWH	2012	2013
Projected Retail Sales in MWH	8,843,583	8,934,983
RPS Percentage	10.0%	10.0%
RPS Requirements before Adj.	884,358	893,498
Adj. for Large Customers	41,045	41,017
PNM RPS Requirements - MWH	843,313	852,481

Source: PNM Renewable Energy Portfolio Procurement Plan for 2012, Table 1, p 6.

16

17 **Q. DOES PNM'S 2012 PLAN SATISFY THE RPS AND DIVERSITY REQUIREMENTS?**

18 **A.** No. The table below shows what is included from the PNM 2012 Plan as provided by PNM
19 Witness Bothwell, Exhibit CDB-2. PNM has requested a waiver of the statutory 2012 RPS
20 compliance and will clearly not satisfy either the RPS, as required by NMSA 62-16-4.A(1)(b), or

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1 the diversity requirements of Rule 572, 17.9.572.7.G NMAC. In fact PNM will provide only
2 5.6% and 5.7% of its 2012 and 2013 RPS requirements based on the plan provided.

Diversity Requirements	2012 - MWH	2013 - MWH	2012 - %	2013 - %
Wind Minimum	168,663	170,496	20.0%	20.0%
Solar Minimum	168,663	170,496	20.0%	20.0%
Other Minimum	84,331	85,248	10.0%	10.0%
Distributed Generation, Minimum	12,650	12,787	1.5%	1.5%
Remaining - Other/Least Cost	409,007	413,453	48.5%	48.5%
Total RPS/Diversity Requirements	843,313	852,481	100.0%	100.0%
Source: Rule 572				
PNM Proposed Diversity	2012 - MWH	2013 - MWH	2012 - %	2013 - %
Wind	355,000	355,000	42.1%	41.6%
Solar	52,431	52,163	6.2%	6.1%
Other	5,280	5,080	0.6%	0.6%
Distributed Generation	82,262	92,943	9.8%	10.9%
Remaining 48.5% - Other/Least Cost	-	-	0.0%	0.0%
Total	494,973	505,186	58.7%	59.3%
PNM Proposed RPS Percentage - Relative to 10% Requirement	5.6%	5.7%		
PNM RPS Shortfall	348,340	347,295	41.3%	40.7%

4
5
6 **Q. DO THE ALTERNATIVE PORTFOLIOS PROPOSED BY PNM SATISFY THE RPS**
7 **REQUIREMENTS?**

8 **A.** No. The two alternate proposed portfolios suffer the same problem as the plan proposed by
9 PNM. The RPS procurements as proposed would result in resource shortfalls even though the
10 company maintained that Alternate Portfolio 1 would be RPS compliant. Staff Exhibit RDL – 4,
11 pp. 1-3, show that the alternate portfolios are based on satisfying an RPS based on PNM’s 2010
12 sales, not estimated 2012 or 2013 sales volumes. In Alternate Portfolio 1 (below) the renewable
13 resources and RECs provided would be about 4% less than required for full compliance for 2012

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1 and 2013. Alternate Portfolio 2 proposes to provide slightly more renewable resources and RECs
2 and based on my estimates which show that PNM would provide about 3.4% and 3.2% fewer
3 RECs than required for 2012 and 2013 respectively.
4

PNM Full RPS - PNM Alternate Portfolio 1	2012 - MWH	2013 - MWH	2012 - %	2013 - %
Wind	670,296	670,068	79.5%	78.6%
Solar	126,725	137,000	15.0%	16.1%
Other	600	600	0.1%	0.1%
Distributed Generation	12,650	12,787	1.5%	1.5%
Remaining 48.5% - Other/Least Cost	-	-	0.0%	0.0%
Total RECs Provided - Alt. 1	810,271	820,455	96.1%	96.2%
Shortfall	(33,042)	(32,026)	-3.9%	-3.8%

PNM Full Diversity - PNM Alternate Portfolio 2	2012 - MWH	2013 - MWH	2012 - %	2013 - %
Wind	628,441	623,603	74.5%	73.2%
Solar	173,072	187,958	20.5%	22.0%
Other	600	600	0.1%	0.1%
Distributed Generation	12,650	12,787	1.5%	1.5%
Remaining 48.5% - Other/Least Cost	-	-	0.0%	0.0%
Total RECs Provided - Alt. 2	814,763	824,948	96.6%	96.8%
Shortfall	(28,551)	(27,534)	-3.4%	-3.2%

5
6 **Q. WHAT DOES STAFF RECOMMEND REGARDING PNM'S CALCULATION OF ITS**
7 **2012 AND 2013 RPS AND DIVERSITY REQUIREMENTS?**

8 A. Staff recommends that PNM's 2012 and 2013 RPS and diversity requirements be calculated using
9 PNM's estimated retail sales volumes for 2012 and 2013 in order to more accurately reflect
10 PNM's 2012 RPS and diversity requirements, Without planning to satisfy requirements that
11 include load growth, the Company will provide fewer RECs than required in future years.
12

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1 **Q. DOES PNM PROPOSE ADDITIONAL RESOURCE PROCUREMENTS IN ORDER TO**
2 **SATISFY THE DIVERSITY REQUIREMENTS OF RULE 572 IN THE ALTERNATE**
3 **PORTFOLIO 2?**

4 **A.** No. PNM has proposed the purchase of RECs in order to satisfy the diversity requirements in
5 PNM Alternate Portfolio 2 in order to satisfy the 2012 and 2013 diversity requirements. PNM
6 has not proposed the provision of additional resources in that portfolio.

7
8 **Q. PNM ESTIMATED ITS 2012 RCT BASED ON 2010 ACTUAL RETAIL REVENUE, IS**
9 **THAT APPROPRIATE?**

10 **A.** No. While in some cases, a utility may claim that projected retail revenue may not be available or
11 that the 2010 data is the most reliable, it is most certainly not true in this case at this time. PNM
12 filed this plan before the final order in Docket 10-00086-UT, the PNM Rate Case, was issued by
13 the Commission. That order was issued in August 2011 and approved a rate increase of \$72
14 million, which PNM implemented August 21, 2011. That increase is significant and would result
15 in an RCT increase greater than \$1.5 million per year ($\$72m \times 2.25\%$). For that reason, Staff
16 believes that PNM should be held to post-rate case retail revenue estimates for purposes of
17 determining the RCT calculation in this case. The table below contains information provided by
18 PNM in discovery in this proceeding. PNM provided rough estimates of its retail revenues for
19 2012 and 2013. Those estimates are \$926.4 million and \$936.0 million, respectively. Because of
20 the magnitude of the difference in retail revenues due to PNM's recent rate increase of about
21 \$72m, Staff recommends that the 2012 and 2013 retail revenue estimates provided by PNM be
22 utilized in this case to determine PNM's RCT limits for 2012 and 2013.

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PNM Retail Revenue Est. Post Rate Case	2011	2012	2013
PNM Retail Revenue (\$k)	\$ 869,400	\$ 926,400	\$ 936,000
RCT Percentage (RPS Limit)	2.00%	2.25%	2.50%
Reasonable Cost Threshold (\$k)	\$ 17,388	\$ 20,844	\$ 23,400

The significant difference is that the RCT target amount is significantly higher, \$1.6m in 2012, and \$1.8m in 2013.

Q. DID PNM REQUEST ANY NEW RENEWABLE RESOURCE ADDITIONS IN THE 2012 PLAN AS FILED?

A. Yes, but only minimally. PNM has failed to develop sufficient additional renewable resources in recent years to satisfy its RPS quantity and diversity requirements. In fact, in Docket 10-00373-UT PNM was allowed a waiver from satisfying the statutory RPS requirements for 2011. The Company's load continues to grow, which results in absolute increases to the RPS requirements over time due to load growth. In addition, the RPS requirements will increase from 10% to 15% in 2015 and will increase again to 20% in 2020 per NMSA 1978, Section 62-16-4(A) (1)(c) and (d).

Q. IS PNM ON A PATH THAT WILL ALLOW IT TO SATISFY ITS RPS AS IT THE STATUTORY RPS INCREASES IN 2015 AND 2020?

A. No. It is Staff's position that PNM is not on a path that will lead to the procurement of renewable resources or RECs that will enable them to meet the RPS quantity and diversity requirements as they increase in 2015 and 2020. See Staff Exhibit RDL – 3, based on the energy sales volumes PNM provided in its application for 2012 and 2013, adjusting those for large customer exemptions, and further escalating load growth at an assumed rate of 2% per year

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1 through 2020, Staff developed an estimate of PNM’s RPS energy requirements through 2020.
2 The second section of that exhibit provides the resulting RPS diversity requirements over that
3 time frame. The third section of Exhibit RDL –3 calculates the estimated capacity of those
4 different technologies required to generate the energy necessary to satisfy the RPS for each year
5 as the PNM load increases and as the statutory RPS requirements increase. The conversion
6 factors, shown at the bottom of that exhibit, are assumed to be a 42% capacity factor for wind,
7 27% capacity factor for solar and 60% capacity factor for the other or biogas technology – but
8 that will vary depending on the technology used to satisfy the other criteria.

9
10 **Q. WHAT IS THE RANGE OF RESOURCES PNM WILL LIKELY HAVE TO PROCURE**
11 **TO BE RPS COMPLIANT IN 2015 AND 2020?**

12 **A.** The range of resources PNM is likely to be required to procure is governed by the statutory
13 requirements of the RPS, NMSA 1978, Section 62-16-4(A)(1)(c) and (d), which state that
14 “renewable energy shall compromise no less than ten percent” in 2011, increasing to 15% in 2015
15 and 20% in 2020. Additionally, Rule 17.9.572.7.G NMAC specifies the diversity requirement
16 minimums which are 20% wind, 20% solar, 10% other and 1.5% DG – until 2015 when DG
17 increases to 3.0%. The table below shows that in order to satisfy its minimum RPS diversity
18 requirements in 2015, PNM would need to procure renewable resources or RECs in the capacities
19 indicated in the table below which range between 233MW, not including the 47% unspecified
20 amounts, and 456 MW when that unspecified amount is allocated on a 50/50 basis between wind
21 and solar. The 50/50 Wind/Solar columns indicate the amounts not specified, the 47% of
22 renewable resources not specified are allocated evenly between wind and solar. There is no
23 requirement that they be allocated in this fashion, this is simply illustrative of the amounts that
24 PNM may need to satisfy the RPS and diversity requirements in 2015 and 2020. The point of this
25 table is to show that based on the resources available today, and on the plan PNM has proposed,
26 satisfying the RPS in 2015 will require a significant commitment on the part of the Company, a

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1 commitment not seen in previous filings, or in this one. In the opinion of Staff, the Company's
2 proposed 2012 plan does not demonstrate a good faith effort to satisfy its RPS requirements.

3

Estimated Capacity Required	2015	2015	2020	2020
Minimum Renewable Resources Provided	@Min RPS Diversity (MW)	Energy (MWH)	@Min RPS Diversity (MW)	Energy (MWH)
Wind - 20%	73	266,887	108	397,300
Solar - 20% + 3% DG	135	307,476	200	455,520
Other - Est. - 10%	25	133,443	38	198,650
Remainder/Least Cost - 47%	n/a	626,628	n/a	935,029
Total Renewable Resources	233	1,334,435	346	1,986,498

Estimated Capacity Required	2015	2015	2020	2020
Full Diversity, Full RPS, Least Cost Resources Allocated 50/50 to Wind & Solar	50/50 Wind/Solar (MW)	Energy (MWH)	50/50 Wind/Solar (MW)	Energy (MWH)
Wind - 43.5%	158	580,479	235	864,127
Solar - 43.5% + 3% DG	272	620,512	406	923,722
Other - Est. - 10%	25	133,443	38	198,650
Remainder/Least Cost	-	-	-	-
Total Renewable Resources	456	1,334,435	678	1,986,498

4
5 For example, today PNM has an estimated total of 50 MW of solar resources installed, including
6 the DG program. By 2015 PNM will be required to have a minimum of 135 MWs of solar and
7 DG. This 15% solar and DG requirement by 2015 could be as high as 272 MWs if the 47% of
8 unspecified renewable resources are split evenly between wind and solar resources. This
9 requirement could be higher if the 47% of unspecified, renewable resources requirements are all
10 provided by solar energy. In order to satisfy the 2015 RPS requirements, PNM, at minimum, will
11 need to add 85 MW of solar resources or solar RECs, either through the construction of new solar
12 projects, purchase power agreements, increases in the DG programs or REC purchases. **There is**
13 **nothing in the plan provided by the Company that addresses the longer term issues facing**

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1 **the Company.** What the Company did provide is simply a request for variances from satisfying
2 both its RPS quantity and diversity requirements for 2012. In fact, continued delays in
3 committing to resource development for the future will inevitably result in future requests for
4 variances of unsatisfied RPS quantity and diversity requirements, future claims that the
5 technology cannot be implemented or installed in time to satisfy the RPS, all resulting in future
6 delays in the development of required renewable resources. The end result will be that PNM will
7 continue to maintain that due to cost constraints, RCT constraints, and the lack of technological
8 availability it cannot satisfy either its RPS quantity or diversity requirements. PNM again has
9 presented a proposed path that will delay the implementation of additional renewable resources,
10 either intentionally or through lack of planning. A commitment by the Company to abide by the
11 statute and appropriate planning would eliminate the need for continued variance requests while
12 also satisfying the statutory requirements of the RPS as well as the diversity criteria of Rule 572.

13
14 **Q. STAFF PROVIDES SIGNIFICANT EVIDENCE ABOUT PNM'S RPS REQUIREMENTS**
15 **FOR 2015 AND 2020, YET THE FILING AND PNM'S 2012 PLAN DO NOT ADDRESS**
16 **THAT, IS THAT APPROPRIATE?**

17 **A.** Staff realizes that the PNM 2012 Plan provides evidence in support of the required filing for 2012
18 and 2013, a plan that once again fall short of satisfying the RPS and diversity requirements.
19 However, the importance of understanding the direction or path that PNM has chosen is resulting
20 in delays in the development and satisfaction of the RPS requirements. Utility planning,
21 particularly resource planning, is forward looking and requires advance planning, load forecasts,
22 energy projections, understanding the resource options, as well as an ability to estimate the
23 approvals and timing necessary to develop the various resources, all that can be evidenced in the
24 most recent PNM Integrated Resource Plan filed in July, 2011. If the Company does not begin to
25 plan to meet the future renewable resource requirements in the near future, those resources will
26 simply not be available to provide the energy or RECs necessary to meet 2015 requirements.

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1 This is particularly true about the “Other” resources as both PNM witnesses Ortiz and Bothwell
2 make claims of insufficient time to develop those resources prior to 2014, Ortiz direct, p 18, l 16-
3 18 and Bothwell direct, p 21, l 9-11. Since resource planning is a forward-looking task, Staff
4 believes that it is important for all parties to understand where the Company should be directing
5 its resource development activities to enable the Company to satisfy the RPS in future years.

6
7 **Q. HAVE OTHER NEW MEXICO INVESTOR OWNED UTILITIES (“IOU’s”) BEEN**
8 **ABLE TO SATISFY ITS RPS QUANTITY AND DIVERSITY REQUIREMENTS WHILE**
9 **STAYING WITHIN THE RCT?**

10 **A.** Yes. Both of the other IOU’s operating in New Mexico, Southwestern Public Service Company
11 (“SPS”) and El Paso Electric Company (“EPE”) have met and continue to meet the RPS quantity
12 requirements and the diversity criteria while staying within the RCT.

13
14 **Q. HAS STAFF EXAMINED THE RCT METHODOLOGY USED BY SPS AND EPE?**

15 **A.** Yes. Both EPE and SPS have included RCT calculations in prior cases to justify the
16 reasonableness of their proposed renewable procurements. SPS witness Sakya supported the
17 request for a solar PPA, she testified in Case 10-00015-UT, where she provided an RCT
18 calculation, Sakya Direct, p11, also supported by SPS witness Berg, Berg Direct, Attachment
19 CLB-4. EPE witness Evans also provided testimony and support for the EPE RCT calculations in
20 Case 11-00263-UT, in Case 10-00200-UT and in Case 09-00259-UT. The calculations as
21 provided are attached in Exhibit RDL – 6. The calculations of the RCT as provided by both EPE
22 and SPS are also consistent with one another. The calculations essentially include the costs of
23 compliance less the avoided cost of a comparable non-renewable generator, which in the cases
24 cited above, include the cost of a combustion turbine as the avoided cost. In each case the
25 avoided cost overwhelmed the cost of compliance and the result was a negative RCT or benefit to
26 ratepayers – the cost of the resource additions are less than the avoided cost of the alternative,

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1 including fuel. While this RCT methodology has been used by EPE and SPS to support
2 Commission approved plans, the Commission has not expressly adopted this methodology.

3
4 **Q. HAS STAFF CALCULATED THE RCT FOR THE PNM 2012 PLAN BASED ON THE**
5 **METHODOLOGY USED BY THE OTHER IOUS?**

6 **A.** Yes. The approach used by EPE and SPS in the cases previously discussed included the
7 procurement cost of their plans, but also included a credit for the avoided capacity and fuel cost
8 of a combustion turbine as the resource being avoided. The table below provides an example of
9 what the RCT might look like if PNM had used a similar methodology to calculate procurement
10 costs under its calculation of the RCT in this case. PNM would in fact also have a negative RCT
11 for 2012 and 2013. In fact, with an RCT limitation of \$20.8m in 2012, and a negative \$2.4m
12 RCT calculation, PNM would have \$23.2m to invest in renewable resources in 2012. Similarly,
13 with a \$23.4m RCT limitation in 2013 and a negative RCT calculation of \$3.4m, the Company
14 would have an additional \$26.8m of headroom to satisfy the 2013 RPS and diversity
15 requirements. Staff Exhibit RDL - 5 contains the details of those calculations.

RCT Calculation - for PNM 2012	2012 MWh	2012 \$
Wind Energy Purchases	355,000	\$ 1,224,750
Solar DG Purchases	74,659	\$ 8,562,660
Solar Energy Generation - Owned	52,431	\$ 9,442,529
Other - Biogas	-	\$ -
Proposed Projects	5,280	\$ 105,600
Total	487,370	\$ 19,335,538
Solar & DG Energy MWh - Avoided Cost of CT @\$165.22/MWH	131,770	\$ (21,771,511)
RCT - Net Incremental Cost/Savings above Avoided Cost		\$ (2,435,973)

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RCT Calculation - for PNM 2013	2013 MWh	2013 \$
Wind Energy Purchases	355,000	\$ 1,224,750
Solar DG Purchases	85,339	\$ 9,363,580
Solar Energy Generation - Owned	52,163	\$ 9,393,294
Other - Biogas	-	\$ -
Proposed Projects	5,280	\$ 114,787
Total	497,782	\$ 20,087,224
Solar & DG Energy - w/Avoided Cost of Combustion Turbine	142,182	\$ (23,491,824)
Net Incremental Cost/Savings above Avoided Cost		\$ (3,395,413)

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Q. HAS STAFF CALCULATED THE RCT FOR THE PNM 2012 PLAN BASED ON THE METHODOLOGY STAFF PREFERS?

A. Yes. That is an easy calculation – PNM witness Bothwell provided the data in her Exhibit CDB-4, Table 4 and Table 5. The sum of the renewable resources under the heading ‘Resources & Costs Proposed’ provide a summary of the incremental costs, which are the costs of resources not previously approved by the Commission or not already included in rates. The amount of incremental expenditures for 2012 and 2013, are \$114,803 and \$110,454 respectively. These costs include the costs associated with the Santa Fe Hydro project and the incremental SIP DG 2012 REC incentive program costs. The result of calculating the RCT using Staff’s preferred methodology is slightly more than \$100,000 each year for 2012 and 2013 and would provide more than \$20.7m and \$23.2m in headroom. This is significantly greater than the RCT that the Company estimated it could spend on renewable resources to satisfy the RPS and diversity requirements – if it chose to do so.

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1 **Q. HOW IS THE STAFF APPROACH TO THE RCT CALCULATION DIFFERENT FROM**
2 **PNM'S APPROACH AND WHAT COSTS ARE APPROPRIATE FOR INCLUSION IN**
3 **THAT CALCULATION?**

4 **A.** The RCT calculation should not be viewed as a cap that serves solely to limit spending, rather it
5 should be viewed as a consumer protection to provide mitigation of potential cost increases
6 associated with renewable resource additions necessary to satisfy the RPS. Costs that are
7 appropriate to include in the RCT calculation are explained in the Direct Testimony of Charles
8 W. Gunter in Docket 10-00037-UT, pp. 14 - 16. *"These amounts should include new charges*
9 *under new procurement proposals, including all costs required to make the proposed*
10 *procurement operational, such as interconnection costs, transmission costs, and regulation costs.*
11 *These costs also should include any new charges arising under previously approved procurement*
12 *proposals.'*

13
14 Costs that should not be included in the RCT calculation consist of costs previously approved for
15 recovery in prior renewable energy procurement plans, including the 22 MW of solar energy that
16 the Commission approved in Case No. 10-00037-UT. These costs are already approved and
17 being recovered through rates, or are pending recovery. Staff believes that such costs are not
18 considered new charges, as they have been reviewed and previously approved. As stated in Mr.
19 Gunter's Direct Testimony in Docket 10-00037-UT, *"Previously approved procurement costs*
20 *either: (1) have already been incorporated into current rates through a rate case; (2) are being*
21 *held as a regulatory asset to be incorporated into rates in the company's next rate case; or (3)*
22 *are being passed through the utility's fuel clause."*

23

24 **Q. WHY IS THE RCT CALCULATION IMPORTANT TO THIS CASE?**

25 **A.** The RCT effectively establishes a level of spending beyond which utilities are not required to add
26 renewable resources. Commission Rule 17.9.572.11.D NMAC allows companies to request a

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1 variance from the RCT limitations, if the cost of renewable procurements exceeds the RCT. The
2 RCT has the effect of protecting ratepayers from excessive RPS costs and resulting rate impacts,
3 while still allowing utilities to make reasonable expenditures necessary to acquire renewable
4 resources. It limits the procurement costs of utilities to 2.25% of retail revenues in 2012 and
5 2.50% in 2013. The current language of the RCT in Rule 17.9.572.11.D NMAC should be
6 revised to specify how the RCT should be measured and the elements that should be measured by
7 the RCT. However, the current notice of proposed rulemaking ("NOPR") in Case No. 11-00218-
8 UT will not be resolved in time to affect the outcome of this proceeding. In lieu of that Staff
9 recommends that Staff's proposed incremental, RCT methodology be used in this case; or, that
10 the approach used by other IOU's - an approach used to satisfy the RPS quantity and diversity
11 requirements in the cases listed above, should be used in this case.

12
13 While staff has a preference regarding the RCT calculation, that preference being the incremental
14 RCT methodology put forward by Staff, what is important is avoiding continued litigation in
15 these proceedings and finding a reasonable path for all parties that reduces litigation expenses,
16 expenses which are ultimately paid by ratepayers to no benefit and result in further delays in the
17 development of renewable resources. **In that regard Staff would support either the EPE
18 RCT methodology as discussed above or the approach put forward by Staff for resolution
19 of this case.**

20
21 **Q. ADDRESS PNM WITNESS BOTHWELL'S POSITION THAT THE RCT SHOULD BE
22 CUMULATIVE RATHER THAN INCREMENTAL?**

23 **A.** PNM's view of how costs under the RCT should be calculated is unreasonable. The REA
24 requires electric utilities in the state to change their generation mix from predominantly fossil
25 fueled, non-renewable generation to a fleet that includes 20% renewable by 2020. A reasonable

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1 interpretation of the RCT should allow for public utilities to meet the REA's clear goals for
2 renewable energy.

3
4 **Q. HOW IS PNM CALCULATING THE RCT IN THIS FILING?**

5 **A.** PNM witness Bothwell has calculated the RCT, as shown in Exhibit CDB-4, and includes all
6 resources, existing, proposed and their costs as RCT impacts. What PNM claims to show are the
7 'total projected increase in annual revenue requirements without consideration for rate case cycles
8 and using actual costs and avoided costs,' Bothwell Direct, p 12, 13-7. However, what PNM has
9 calculated is the total cost of compliance for a given year, not the projected revenue requirement
10 increase. That increase, more appropriately, would be the incremental increase calculated for
11 compliance in one year, less the previous year compliance cost. It is Staff's position that an
12 incremental cost approach is a more reasonable approach. Costs included in prior procurement
13 plans that have been previously approved by the Commission have already been reviewed and
14 included in an RCT calculation would result in double counting and would necessarily reduce the
15 amount of funding available for renewable resources. In addition EPE and SPS use avoided fuel
16 and avoided capacity costs in their calculation of the RCT, which provides more reasonable
17 results.

18
19 Using the PNM methodology, the overall impact of renewable is effectively capped at a one-time
20 2.25% increase in retail revenues in 2012, increasing only with growth in retail revenues, and also
21 an increase of 0.25% per year as the RCT percentage increases to 3.0% by 2015. PNM's
22 approach could effectively make it impossible for any public utility to accomplish the 20%
23 renewable objective established in the Renewable Energy Act by 2020. Such an approach could
24 not possibly allow PNM to increase the amount of renewable energy or RECs in PNM's resource
25 mix from the anticipated 9.4% in 2011 to the statutory mandate of 20% in 2020.

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1 The more appropriate calculation of the RCT would be a 2 to 3% **incremental** calculation that
2 would actually provide an opportunity for a public utility to achieve the 20% RPS objective in
3 2020. Doing so would require the RCT calculation to capture only the annual incremental
4 revenue requirements associated with renewable energy, not the annual cumulative total, as PNM
5 proposes. It is Staff's position that PNM has failed to sufficiently support its RCT methodology
6

7 **Q. WOULD STAFF RECOMMEND OTHER ALTERNATIVES TO THE PNM PLAN TO**
8 **THE COMMISSION?**

9 **A.** Staff would support a plan that included a path that provided for the development of renewable
10 resources that would lead to the provision of adequate renewable resources to meet both the
11 diversity and RPS requirements in 2015. If such a plan were proposed, Staff would find it
12 reasonable to recommend the Commission grant variances to the Company for RPS diversity
13 requirements.
14

15 **Q. ARE THERE OTHER ISSUES THAT MAY AFFECT THIS FILING?**

16 **A.** Yes. The Company has requested changes to the Sky Blue voluntary renewable energy program
17 in Docket 10-00018-UT. The outcome of that case will affect the volume of wind RECs
18 available from the New Mexico Wind Energy Center that can be used to satisfy the RPS criteria
19 in this case. If the Sky Blue program is allowed to be revised as PNM has requested in that
20 docket there will be more wind RECs available to satisfy the RPS in 2011 and 2012. If the Sky
21 Blue program remains unchanged, if it remains as a wind only program there will be fewer wind
22 RECs available to satisfy the RPS in 2011.
23

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Q. WHAT IS THE IMPORTANCE OF PROVIDING SUPPORT FOR THE CONTINUED DEVELOPMENT OF RENEWABLE ENERGY, TECHNOLOGY AND SPECIFIC PROGRAMS?

A. New technologies, particularly those like solar and “other” renewable technologies will not be adequately utilized by electric utilities until the prices of these technologies are at parity with other resource options. The use of incentives to promote the use of DG technologies such as solar and wind further promotes research and development in those technologies, as well as production improvements which reduce prices, and improves the reliability of the technologies, all of which are benefits that that lead to the long term viability of renewable technologies. In fact solar system prices have declined significantly in the last year, according to data provided by Solarbuzz.com (see below).

	Unit	Sept. 2010	Sept. 2011	Price Change
Module	Wp (≥125 W)	\$3.61	\$2.65	-26.6%
Inverter	Continuous Watt	\$0.715	\$0.714	-0.1%
Battery	Output Watt Hour	\$0.207	\$0.213	2.9%
Charge Controller	Amp	\$5.87	\$5.93	1.0%
Solar Systems*	Residential cents/kWh	34.28	29.53	-13.9%
	Commercial cents/kWh	24.32	19.97	-17.9%
	Industrial cents/kWh	18.95	15.56	-17.9%

Source: Solarbuzz.com

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It is apparent that the increased demand for renewable technologies provided in part by RPS program requirements of various states across the country plus renewable energy incentive pricing is successfully promoting the development of the industry and helping to create local jobs in support of the industry. Job growth and creation is one of the more prominent benefits of DG program incentives and development and is among the principal legislative purposes of the Renewable Energy Act. See NMSA 1978, Section 61-16-1(A)(2) (stating that “the use of

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1 renewable energy by public utilities subject to commission oversight . . . can bring significant
2 economic benefits to New Mexico.”)

3
4 **Q. DID PNM PROPOSE CHANGES TO THE DG SOLAR PROGRAMS?**

5 **A.** Yes. PNM has proposed changes to address DG programs for projects over 100kw. PNM has
6 established tranches that are filled based on capacity limits, and have established REC incentives
7 that decline as each tranche fills. PNM DG programs currently have 12-year contract terms for
8 projects less than 10kw, 20-year contract terms for larger projects. Staff recommends the
9 Commission make several changes to the PNM DG programs:

10 1. Contract terms be limited to either 8 years for all contracts or that all contracts expire in
11 2020, which would reflect shorter contract terms over time.

12 2. That tranches be time limited as opposed to capacity limited. In other words, each
13 tranche and related REC incentive price should be effective for a 6-month window, regardless of
14 how much capacity is installed in each tranche.

15 3. That PNM be allowed to provide a bid process for REC incentive payments for those
16 projects greater than 250 kw and that the bid amount be limited to no more than 90% of the REC
17 incentive amount in effect for the 100 – 250 kw tranche.

18
19 Staff believes that with the continuing decline in the cost of solar systems, a more reasonable
20 payback period helps protect ratepayers and limits the amount of recovery received by program
21 participants. Additionally, the change from capacity limited to time limited tranches provides an
22 opportunity to participate in the PNM DG program for those interested in participating with the
23 full understanding of the requirements necessary to do so. Staff recommends a one cent reduction
24 in REC incentive payments for all DG program classifications for each six month period going
25 forward based on current REC incentive prices, as shown below.

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PNM DG Program Proposed Pricing

Tier	Expires	Less than 10 kW	10-100 kW	100-250 kW	250 kW - 1 MW	1 MW
PNM Current Pricing		\$0.08	\$0.07	\$0.06	\$0.06	\$0.07
Proposed Pricing						
Tier 1	6/30/2012	\$0.07	\$0.06	\$0.05	\$0.05	Bid
Tier 2	12/31/2012	\$0.06	\$0.05	\$0.04	\$0.04	Bid
Tier 3	6/30/2013	\$0.05	\$0.04	\$0.03	\$0.03	Bid
Tier 4	12/31/2013	\$0.04	\$0.03	\$0.02	\$0.02	Bid
Tier 5	6/30/2014	\$0.03	\$0.02	\$0.02	\$0.02	Bid

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Q. PNM HAS REQUESTED RECOVERY OF \$263,416 TO DEVELOP BILLING SYSTEM IMPROVEMENTS THAT WILL PROVIDE THE BILLING FLEXIBILITY NECESSARY FOR AUTOMATED BILLING TO THIRD PARTY PROVIDERS OF RENEWABLE ENERGY. DOES STAFF SUPPORT THAT REQUEST?

A. No. Staff opposed the recovery of a higher amount in Case 10-00373-UT, an amount of \$400,000 which has now been revised downward by 35%. Staff did not believe that expense to be prudent in that proceeding, nor does staff support that expense in this proceeding. Staff believes that a \$263,416 expense to serve a limited number of customers (2 currently installed systems and 41 pending applications, Styes direct, p 11, 12 -13) is unreasonable and imprudent. Staff believes that the inflexibility of the billing system should not be a burden to ratepayers, and particularly should not be a detriment to the development of renewable resources. By including this expense in the RCT it further limits what PNM has calculated to be a very limited amount of funds available for the development of renewable resources. While Staff maintains this is an imprudent expense, Staff would not oppose the recovery of those costs if approved by the Commission and included for recovery in base rates, not impacting the RCT and further limiting the development of renewable resources.

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1 **Q. DID PNM REPORT ON ITS 2010 RENEWABLE PORTFOLIO REQUIREMENTS?**

2 **A.** The Company filed the Annual Renewable Energy Portfolio Report for 2010 as required by
3 NMPRC Rule 572, 17.9.572.17 NMAC.

4

5 **Q. DID PNM SATISFY THE RPS QUANTITY REQUIREMENT FOR 2010?**

6 **A.** Yes. PNM provided adequate documentation that it provided more than the 497,915 MWh of
7 RECs associated with renewable energy generation as required to satisfy the RPS requirement to
8 provide 6% of 2010 retail energy sales of 8,299,183 MWh.

9

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

11 **A.** Yes.

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Appendix A

<u>NMPRC Case No.</u>	<u>Utility</u>	<u>Subject</u>
11-00263-UT	PNM	Renewable Portfolio Standard Report, 2011
10-00018-UT	PNM	PNM Sky Blue Replacement Program Review
10-00200-UT	EPE	Renewable Portfolio Standard Report, 2010
10-00037-UT	PNM	Revised 2010 Renewable Stipulation
10-00266-UT	EPE	Incentives and Disincentives Associated with Energy Efficiency and Load Management Programs
10-00373-UT	PNM	Revised 2011 Renewable Stipulation
10-00388-UT	SPS	Review and Approval of Cielo Wind PPA
08-00315-UT	PHUC	Financing and Construction of a Sewage Discharge Line And Other Matters
09-00260-UT	PNM	Renewable Portfolio Standard Report, 2009
09-00259-UT	EPE	Renewable Portfolio Standard Report, 2009
08-00354-UT	SPS	General Rate Adjustment; Request for Expedited Interim Relief Authorizing Recovery of Capacity Related Costs Associated With the New Hobbs Generating Station,
08-00331-UT	SPS	General Rate Adjustment; Prudence of Purchased Power Agreement
07-00319-UT	SPS	General Rate Adjustment; Prudence of Purchased Power Agreement
07-00394-UT	PHUC	General Rate Adjustment: Water and Sewer Rates
08-00219-UT	EPE	Renewable Portfolio Standard Report, 2008
08-00222-UT	SPS	Renewable Portfolio Standard Report, 2008
08-00229-UT	PNM	Voluntary Renewable Energy Program
08-00391-UT	SPS	Service Agreement between SPS and Central Valley Electric Cooperative, Inc.

Abbreviations

EPE	El Paso Electric Company
PHUC	Picacho Hills Utility Company
PNM	Public Service Company of New Mexico
SPS	Southwestern Public Service Company

Exhibit RDL - 1
R. DWIGHT LAMBERSON

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dwight.lamberson@state.nm.us
505.827.4001

Executive Profile

Economist/Financial Manager with exceptional project management and consulting skills. Partners effectively with diverse groups that include regulators, utility representatives, environmentalists, consumer advocates and other interest groups. Over 25 years experience in utility planning, generation planning, utility policy and regulation, generation/fuel planning (Promod), research, financial forecasting and modeling, economic analysis, capital appropriations, accounting and budget development. Analyzed the myriad complexities of regulated utilities, as well as and mergers and acquisitions. Trusted advisor on FERC and NMPRC rules and regulations, evaluating changes in those rules and regulations. Exceptional analytical, communication and negotiation skills. Expertise includes:

- Renewable Energy Policy & Regulation
- Strategic & Financial Planning
- Budgeting & Forecasting
- Economic Analysis
- Capital Appropriations
- Generation Planning
- Policy Analysis & Negotiations
- Environmental Regulations
- Integrated Resource Planning
- Regulatory Rulemaking

Experience

NEW MEXICO PUBLIC REGULATION COMMISSION

2008 to Present

**Economist,
Accounting Bureau, Utility Division**

Primary Renewable Energy Policy Analyst, providing regulatory support and testimony in regulatory commission cases. Leads regulatory policy development, review and analysis, litigation support in a variety of regulatory filings including; renewable energy, Integrated Resource Planning, electric rate cases, electric generation acquisition, and production cost analysis for commission staff. Supports the accounting division regulatory, compliance and rate filings for water, sewer, gas and electric utilities.

PNM RESOURCES, Albuquerque, NM

1992 to 2007

**Senior Financial Analyst, Product Pricing and Evaluation
Financial Planning, Planning and Investor Relations**

Provided key support for regulatory filings and rulemakings, regulatory issue analysis, economic analysis, capital appropriations analysis, generation planning and review. Partnered with other departments to insure appropriate analysis of legal, tax, ratemaking, regulatory, budget and misc. issues as needed. Supported inter and intra-departmental issues and analysis, including mergers and acquisitions, marketing, budget, policy changes, accounting issues and impacts, electric utility deregulation and capital appropriations process review.

- Negotiated with regulators and interveners to develop a regulatory framework suitable to all parties for implementing an Integrated Resource Planning (IRP) process/rule that was implemented by NMPRC in 2007.
- Developed testimony in PNM rate cases. Testimony preparation required significant strategic planning and coordination with to provide a singular perspective when presented to the NMPRC.
- Negotiated with NMPRC staff and intervener groups to develop a reasonable approach to Carbon Pricing in a response to a NOPR (notice of proposed rulemaking) by the NMPRC.
- Managed 3-year effort to resolve issues with another public utility in a purchase power agreement rate issue. This evolved into FERC (Federal Electric Regulatory Commission) intervention in various cases, PNM filing a complaint at the FERC, and FERC litigation, hearings, and settlement discussions resulting from these cases.
- Developed and maintained financial models, responsible for fuels forecasts, generation dispatch, capital evaluation models, revenue requirements models and many other systems. Ad hoc tools were

R DWIGHT LAMBERSON

developed on as needed basis, drawing on strong skills using financial modeling software, spreadsheets, SAS, etc.

- Strategized with marketing management to develop marketing options and profitability focus in conjunction with various opportunities and proposed new business initiatives.
- Ensured adequate revenue recovery. Assessed rate impacts and alternatives for various electric rate schedules including time of use rates, irrigation rates, interruptible rates and rebate programs.
- Analyzed, coordinated and assimilated effects of policy and regulatory change on PNM and the industry, including impacts on individual power providers, rate payers and shareholders.
- Examined a wide range of energy policy issues and industry organization.

PLAINS ELECTRIC GENERATION & TRANSMISSION

1985 to 1992

Supervisor, Forecasting and Modeling

Supported 13-member cooperatives in financial forecasting and modeling activities. Conducted financial and load forecasting, IRP and DSM (Demand Side Management) analysis, and financial analysis.

- Lead for IRP and DSM impact and analysis internally, researching and examining conservation and renewable energy alternatives.
- Developed capital appropriations analysis, established, policies and analytical models, led budgeting process and market analysis.
- Played key role in survey development, rate and regulatory filing support.
- Member of Governors' Conservation and Renewable Energy Task Force for developing and implementing the New Mexico Energy Policy in 1992.
- Worked with WAPA, REA, and NMPUC in examining impacts of IRP, in examining impacts and rate alternatives resulting from changing flows at Glen Canyon Dam.
- Consulted and educated co-op members on priorities of load and financial forecasting activities.

UNIVERSITY OF NEW MEXICO

1984 to 1985

Economist, Bureau of Business and Economic Research

Managed research regarding electric utility service areas in New Mexico and developed econometric modeling for NMPUC.

Education & Training

Master of Science, Agricultural Economics, Jan., 1983
New Mexico State University, Las Cruces, NM
Major area of study: Regional and Resource Economics.

Bachelor of Science, Environmental and Resource Economics, May, 1981
New Mexico State University, Las Cruces, NM

Technical Skills

Excel, Word, PowerPoint, Access; SAS; Financial modeling and budgeting; Capital budget analysis and review. Ad hoc model building skills, basic accounting knowledge, knowledge of regulatory process, utility planning process, budgeting, capital appropriations, and electric rate making.

In Addition

Board member, past president, Amigos de las Americas.

8 years involvement in a not for profit organization that provides leadership opportunities for high school youth in the Albuquerque area. The youth travel to Latin America where they provide health and safety education, to a variety of communities that have few resources. I continue in a leadership role in the local and national organization to assure the Albuquerque Chapter continues providing these opportunities to as diverse group of high school youth as possible. Positions held include; President, Vice President, Treasurer, Parent Coordinator and Fundraising Chair.

Exhibit RDL - 2

PNM RPS Requirements

PNM RPS Filing	2012	2013
Projected Retail Sales in MWH	8,843,583	8,934,983
RPS Percentage	10.0%	10.0%
RPS Requirements before Adj.	884,358	893,498
Adjustments for Large Cust.	41,045	41,017
PNM RPS Requirements	843,313	852,481

Source: PNM Renewable Energy Portfolio Procurement Plan for 2012, Table 1, p 6.

Diversity Requirements	2012 - MWH	2013 - MWH	2012 - %	2013 - %
Wind 20%, min.	168,663	170,496	20.0%	20.0%
Solar 20%, min.	168,663	170,496	20.0%	20.0%
Other 10%, min.	84,331	85,248	10.0%	10.0%
Distributed Generation 1.5%, min.	12,650	12,787	1.5%	1.5%
Remaining 48.5% - Other/Least Cost	409,007	413,453	48.5%	48.5%
Total RPS/Diversity Requirements	843,313	852,481	100.0%	100.0%
Source: Rule 572				
PNM Proposed Diversity	2012 - MWH	2013 - MWH	2012 - %	2013 - %
Wind	355,000	355,000	42.1%	41.6%
Solar	122,043	132,319	14.5%	15.5%
Other	5,280	5,080	0.6%	0.6%
Distributed Generation	12,650	12,787	1.5%	1.5%
Remaining 48.5% - Other/Least Cost	-	-	0.0%	0.0%
Total	494,973	505,186	58.7%	59.3%
PNM Proposed RPS Percentage - Relative to 10% Requirement				
	5.6%	5.7%		
PNM RPS Shortfall	348,340	347,295	41.3%	40.7%

Exhibit RDL - 3

PNM

PNM Projected Retail Sales Volumes - Escalated 2% per Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	Annual Growth Rate
Retail Sales - Projected - MWH - Escalated 2%/yr	8,843,583	8,934,983	9,113,683	9,295,956	9,481,875	9,671,513	9,864,943	10,062,242	10,263,487	2.0%
RPS Requirements - MWH - Adj for Large Cust. (-00645%)	843,313	852,481	852,585	1,334,435	1,361,123	1,388,346	1,416,113	1,444,435	1,986,498	

Minimum Diversity Requirements	2012	2013	2014	2015	2016	2017	2018	2019	2020
Wind - 20%	168,663	170,496	170,517	266,887	272,225	277,669	283,223	288,887	397,300
Solar - 20%	168,663	170,496	170,517	266,887	272,225	277,669	283,223	288,887	397,300
Other - 10%	84,331	85,248	85,259	133,443	136,112	138,835	141,611	144,443	198,650
DG - 1.5% to 3.0% in 2015	12,650	12,787	12,789	40,033	40,834	41,650	42,483	43,333	59,595
Remainder/Least Cost	409,007	413,453	413,504	627,184	639,728	652,522	665,573	678,884	933,654
Total Renewables	843,313	852,481	852,585	1,334,435	1,361,123	1,388,346	1,416,113	1,444,435	1,986,498

Estimated Capacity Required @ Minimum Diversity	2012	2013	2014	2015	2016	2017	2018	2019	2020
Wind	46	46	46	73	74	75	77	79	108
Solar	74	75	75	117	120	122	124	127	174
Other - Est.	16	16	16	25	26	26	27	27	38
Distributed Generation	6	6	6	18	18	18	19	19	26
Remainder/Least Cost	???	???	???	???	???	???	???	???	???
Total Renewables	141	143	143	233	237	242	247	252	346
Remainder - If All Wind	111	112	112	170	174	177	181	185	254
Remainder - If All Solar	180	182	182	275	281	286	292	298	410

Estimated Capacity Required When Undefined Energy is Split 50/50 Wind/Solar	2012	2013	2014	2015	2016	2017	2018	2019	2020
Wind @ 20% plus 50% of Least Cost	101	103	103	158	161	164	167	171	235
Solar @ 20% plus 50% of Least Cost, Inc. DG	169	171	171	272	278	283	289	295	406
Other	16	16	16	25	26	26	27	27	38
Total Renewables	287	290	290	456	465	474	483	493	678

Conversion Factors Assumptions: Capacity to Energy	Capacity Factor	MWH Generation/ MW
Wind	42%	3,679
Solar	26%	2,278
Other	50%	5,256

Exhibit RDL - 4

PNM Alternate Portfolio 1 - RPS & Diversity Volume Compliance

Diversity Requirements	2012 - MWH	2013 - MWH	2012 - %	2013 - %
Wind 20%, min.	168,663	170,496	20.0%	20.0%
Solar 20%, min.	168,663	170,496	20.0%	20.0%
Other 10%, min.	84,331	85,248	10.0%	10.0%
Distributed Generation 1.5%, min.	12,650	12,787	1.5%	1.5%
Remaining 48.5% - Other/Least Cost	409,007	413,453	48.5%	48.5%
Total RPS/Diversity Requirements	843,313	852,481	100.0%	100.0%
PNM Proposed Diversity - PNM				
Alternate Portfolio 1	2012 - MWH	2013 - MWH	2012 - %	2013 - %
Wind	670,296	670,068	79.5%	78.6%
Solar	126,725	137,000	15.0%	16.1%
Other	600	600	0.1%	0.1%
Distributed Generation	12,650	12,787	1.5%	1.5%
Remaining 48.5% - Other/Least Cost	-	-	0.0%	0.0%
Total	810,271	820,455	96.1%	96.2%
Shortfall	(33,042)	(32,026)	-3.9%	-3.8%

PNM Alternate Portfolio 2 - RPS & Diversity Volume Compliance

Diversity Requirements	2012 - MWH	2013 - MWH	2012 - %	2013 - %
Wind 20%, min.	168,663	170,496	20.0%	20.0%
Solar 20%, min.	168,663	170,496	20.0%	20.0%
Other 10%, min.	84,331	85,248	10.0%	10.0%
Distributed Generation 1.5%, min.	12,650	12,787	1.5%	1.5%
Remaining 48.5% - Other/Least Cost	409,007	413,453	48.5%	48.5%
Total RPS/Diversity Requirements	843,313	852,481	100.0%	100.0%
PNM Proposed Diversity - PNM				
Alternate Portfolio 2	2012 - MWH	2013 - MWH	2012 - %	2013 - %
Wind	628,441	623,603	74.5%	73.2%
Solar	173,072	187,958	20.5%	22.0%
Other	600	600	0.1%	0.1%
Distributed Generation	12,650	12,787	1.5%	1.5%
Remaining 48.5% - Other/Least Cost	-	-	0.0%	0.0%
Total	814,763	824,948	96.6%	96.8%
Shortfall	(28,551)	(27,534)	-3.4%	-3.2%

Exhibit RDL - 4

PNM Alternate Portfolio 1 - RPS Compliance

PNM Alternate Portfolio 1 Existing Resources	2012 RECs MWh	Procurement Cost \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Total Cost - 2012 \$
Wind Energy Purchases	355,000	\$ 27.25	\$ (19.75)	\$ 7.50	\$ 2,662,500
Total Distributed Generation	82,264				\$ 9,661,894
Solar Energy					
Algodones/Aztec 3:1	120	\$ -	\$ (13.89)	\$ (13.89)	\$ (1,667)
Solar Demo with Batteries	1,086	\$ 521.83	\$ (41.68)	\$ 480.15	\$ 521,443
PNM Owned 22 MW PV	51,225	\$ 183.95	\$ (41.68)	\$ 142.27	\$ 7,287,781
Total Solar	52,431				\$ 7,807,557
Other - Biogas (RECs)	-	\$ 10.00	\$ 0.88	\$ 10.88	\$ -
Total Existing Resources	489,695				\$ 20,131,951
Proposed Resources & Costs					
Santa Fe Hydro	600	\$ 20.00	\$ 1.74	\$ 21.74	\$ 13,044
SIP DG @ \$0.02	4,680	\$ 20.00	\$ 1.74	\$ 21.74	\$ 101,743
Wind REC Purchases	315,296	\$ 7.91	\$ -	\$ 7.91	\$ 2,493,991
Total Proposed	320,576				\$ 2,608,779
Total All Resources	810,271				\$ 22,740,730
PNM Retail Revenue					\$ 926,400,000
Percent of Retail Revenue					2.45%
Amount in Excess/(Below) of RCT					\$ 1,896,730

PNM Alternate Portfolio 1 Existing Resources	2013 RECs MWh	Procurement Cost \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Total Cost - 2013 \$
Wind Energy Purchases	355,000	\$ 27.25	\$ (19.75)	\$ 7.50	\$ 2,662,500
Total Distributed Generation	92,944				\$ 10,532,187
Solar Energy					
Algodones/Aztec 3:1	120	\$ -	\$ (14.88)	\$ (14.88)	\$ (1,786)
Solar Demo with Batteries	1,078	\$ 499.71	\$ (44.63)	\$ 455.08	\$ 490,576
PNM Owned 22 MW PV	50,965	\$ 174.54	\$ (44.63)	\$ 129.91	\$ 6,620,863
Total Solar	52,163				\$ 7,109,654
Other - Biogas (RECs)	-	\$ 10.00	\$ 0.88	\$ 10.88	\$ -
Total Existing Resources	500,107				\$ 20,304,341
Proposed Resources & Costs					
Santa Fe Hydro	600	\$ 20.00	\$ 1.74	\$ 21.74	\$ 13,044
SIP DG @ \$0.02	4,680	\$ 20.00	\$ 1.74	\$ 21.74	\$ 101,743
Wind REC Purchases	315,068	\$ 10.00	\$ -	\$ 10.00	\$ 3,150,680
Total Proposed	320,348				\$ 3,265,467
Total All Resources	820,455				\$ 23,569,808
PNM Retail Revenue					\$ 936,000,000
Percent of Retail Revenue					2.52%
Amount in Excess/(Below) of RCT					\$ 169,808

Exhibit RDL - 4

PNM Alternate Portfolio 2 - RPS and Diversity Compliance

PNM Alternate Portfolio 2 Existing Resources	2012 RECs MWh	Procurement Cost \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Total Cost - 2012 \$
Wind Energy Purchases	355,000	\$ 27.25	\$ (19.75)	\$ 7.50	\$ 2,662,500
Total Distributed Generation	82,264				\$ 9,661,894
Solar Energy					
Algodones/Aztec 3:1	120	\$ -	\$ (13.89)	\$ (13.89)	\$ (1,667)
Solar Demo with Batteries	1,086	\$ 521.83	\$ (41.68)	\$ 480.15	\$ 521,443
PNM Owned 22 MW PV	51,225	\$ 183.95	\$ (41.68)	\$ 142.27	\$ 7,287,781
Total Solar	52,431				\$ 7,807,557
Other - Biogas (RECs)	-	\$ 10.00	\$ 0.88	\$ 10.88	\$ -
Total Existing Resources	489,695				\$ 20,131,951
Proposed Resources & Costs					
Santa Fe Hydro	600	\$ 20.00	\$ 1.74	\$ 21.74	\$ 13,044
SIP DG @ \$0.02	4,680	\$ 20.00	\$ 1.74	\$ 21.74	\$ 101,743
Wind REC Purchases	273,441	\$ 7.35	\$ -	\$ 7.35	\$ 2,009,791
Solar REC Purchases	39,514	\$ 39.36	\$ -	\$ 39.36	\$ 1,555,271
SIP DG - Incremental 3 MW	6,833	\$ 38.41	\$ -	\$ 38.41	\$ 262,448
Total Proposed	325,068				\$ 3,942,297
Total All Resources	814,763				\$ 24,074,249
PNM Retail Revenue					\$ 926,400,000
Percent of Retail Revenue					2.60%
Amount in Excess/(Below) of RCT					\$ 3,230,249

PNM Alternate Portfolio 2 Existing Resources	2013 RECs MWh	Procurement Cost \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Total Cost - 2013 \$
Wind Energy Purchases	355,000	\$ 27.25	\$ (19.75)	\$ 7.50	\$ 2,662,500
Total Distributed Generation	92,944				\$ 10,532,187
Solar Energy					
Algodones/Aztec 3:1	120	\$ -	\$ (14.88)	\$ (14.88)	\$ (1,786)
Solar Demo with Batteries	1,078	\$ 499.71	\$ (44.63)	\$ 455.08	\$ 490,576
PNM Owned 22 MW PV	50,965	\$ 174.54	\$ (44.63)	\$ 129.91	\$ 6,620,863
Total Solar	52,163				\$ 7,109,654
Other - Biogas (RECs)	-	\$ 10.00	\$ 0.88	\$ 10.88	\$ -
Total Existing Resources	500,107				\$ 20,304,341
Proposed Resources & Costs					
Santa Fe Hydro	600	\$ 20.00	\$ 1.74	\$ 21.74	\$ 13,044
SIP DG @ \$0.02	4,680	\$ 20.00	\$ 1.74	\$ 21.74	\$ 101,743
Wind REC Purchases	268,603	\$ 10.00	\$ -	\$ 10.00	\$ 2,686,030
Solar REC Purchases	44,125	\$ 35.00	\$ -	\$ 35.00	\$ 1,544,375
SIP DG - Incremental 3 MW	6,833	\$ 38.41	\$ -	\$ 38.41	\$ 262,448
Total Proposed	324,841				\$ 4,607,640
Total All Resources	824,948				\$ 24,911,981
PNM Retail Revenue					\$ 936,000,000
Percent of Retail Revenue					2.66%
Amount in Excess of RCT					\$ 1,511,981

Exhibit RDL - 5

Levelized RCT Cost Calculation PNM - 2012	2012 MWh	2012 \$
Wind Energy Purchases	355,000	\$ 1,224,750
Solar DG Purchases	74,659	\$ 8,562,660
Solar Energy Generation - Owned	52,431	\$ 9,442,529
Other - Biogas	0	0
Proposed Projects	5,280	\$ 105,600
Total	487,370	\$ 19,335,538
Solar & DG Energy - w/Avoided Cost of Combustion Turbine		
	131,770	\$ (21,771,511)
Net Incremental Cost/Savings above Avoided Cost		
		\$ (2,435,973)

Levelized RCT Cost Calculation PNM - 2013	2013 MWh	2013 \$
Wind Energy Purchases	355,000	\$ 1,224,750
Solar DG Purchases	85,339	\$ 9,363,580
Solar Energy Generation - Owned	52,163	\$ 9,393,294
Other - Biogas	0	0
Proposed Projects	5,280	\$ 114,787
Total	497,782	\$ 20,096,411
Solar & DG Energy - w/Avoided Cost of Combustion Turbine		
	142,182	\$ (23,491,824)
Net Incremental Cost/Savings above Avoided Cost		
		\$ (3,395,413)

2011 Levelized Cost of Combustion Turbine w/Fuel	\$ 165.22
Levelized Cost of Fuel for CT	\$ 79.97
Less Fuel @ \$79.97 - Assumes Fuel Costs are already credited.	\$ 85.25

Source: EPRI TAG LMS 100

Levelized RCT Cost Calculation Existing Resources	2012 RECs MWh	Procurement		Procurement		Total Cost - 2012 \$
		Cost \$/MWh - REC		Cost Savings \$/MWh - REC		
Wind Energy Purchases	355,000	\$ 27.25	\$	(23.80)	\$ 3.45	\$ 1,224,750
Distributed Generation						
Small PV - 3:1	3,803	\$ 43.33	\$	-	\$ 43.33	\$ 164,770
Small PV - 1:1	10,606	\$ 130.00	\$	-	\$ 130.00	\$ 1,378,780
Large PV - 1:1	19,539	\$ 150.00	\$	-	\$ 150.00	\$ 2,930,850
SIP DG @ \$0.14	1,231	\$ 140.00	\$	-	\$ 140.00	\$ 172,340
SIP DG @ \$0.13	2,333	\$ 130.00	\$	-	\$ 130.00	\$ 303,290
SIP DG @ \$0.12	6,725	\$ 120.00	\$	-	\$ 120.00	\$ 807,000
SIP DG @ \$0.11	9,592	\$ 110.00	\$	-	\$ 110.00	\$ 1,055,120
SIP DG @ \$0.10	5,737	\$ 100.00	\$	-	\$ 100.00	\$ 573,700
SIP DG @ \$0.09	6,883	\$ 90.00	\$	-	\$ 90.00	\$ 619,470
SIP DG @ \$0.08	3,237	\$ 80.00	\$	-	\$ 80.00	\$ 258,960
SIP DG @ \$0.07	1,755	\$ 70.00	\$	-	\$ 70.00	\$ 122,850
SIP DG @ \$0.06	1,463	\$ 60.00	\$	-	\$ 60.00	\$ 87,780
SIP DG @ \$0.05	1,755	\$ 50.00	\$	-	\$ 50.00	\$ 87,750
Total Distributed Generation	74,659					\$ 8,562,660
Solar Energy						
Algodones/Aztec 3:1	120	\$ -	\$	(13.89)	\$ (13.89)	\$ (1,667)
Solar Demo with Batteries	1,086	\$ 474.37	\$	-	\$ 474.37	\$ 515,166
PNM Owned 22 MW PV	51,225	\$ 174.31	\$	-	\$ 174.31	\$ 8,929,030
Total Solar	52,431					\$ 9,442,529
Other - Biogas (RECs)	-	\$ 10.00	\$	0.88	\$ 10.88	\$ -
Total Existing Resources	482,090					\$ 19,229,938
Proposed Resources & Costs						
Santa Fe Hydro	600	\$ 20.00	\$	-	\$ 20.00	\$ 12,000
SIP DG @ \$0.02	4,680	\$ 20.00	\$	-	\$ 20.00	\$ 93,600
Billing System Upgrade						
Total Proposed	5,280					\$ 105,600
Total All Resources	487,370					\$ 19,335,538

Wind & Solar Energy Purchase at Levelized Cost PNM Ex. REIA 1-8.

DG Revisions for billing system upgrades removed from costs. (CDB Test. P 15, L 22)

Levelized RCT Cost Calculation Existing Resources	2012 RECs MWh	Procurement		Procurement		Total Cost - 2012 \$
		Cost \$/MWh - REC		Cost Savings \$/MWh - REC		
Wind Energy Purchases	355,000	\$ 27.25	\$	(23.80)	\$ 3.45	1,224,750
Total Distributed Generation	74,659					\$ 8,562,660
Solar Energy						
Algodones/Aztec 3:1	120	\$ -	\$	(13.89)	\$ (13.89)	\$ (1,667)
Solar Demo with Batteries	1,086	\$ 474.37	\$	-	\$ 474.37	\$ 515,166
PNM Owned 22 MW PV	51,225	\$ 174.31	\$	-	\$ 174.31	\$ 8,929,030
Total Solar	52,431					\$ 9,442,529
Other - Biogas (RECs)	-	\$ 10.00	\$	0.88	\$ 10.88	\$ -
Total Existing Resources	482,090					\$ 19,229,938
Proposed Resources & Costs						
Santa Fe Hydro	600	\$ 20.00	\$	-	\$ 20.00	\$ 12,000
SIP DG @ \$0.02	4,680	\$ 20.00	\$	-	\$ 20.00	\$ 93,600
Billing System Upgrade						
Total Proposed	5,280					\$ 105,600
Total All Resources	487,370					\$ 19,335,538

Levelized RCT Cost Calculation Existing Resources	2013 RECs MWh	Procurement Cost \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Total Cost - 2013 \$
Wind Energy Purchases	355,000	\$ 27.25	\$ (23.80)	\$ 3.45	\$ 1,224,750
Distributed Generation					
Small PV - 3:1	3,803	\$ 43.33	\$ -	\$ 43.33	\$ 164,770
Small PV - 1:1	10,606	\$ 130.00	\$ -	\$ 130.00	\$ 1,378,780
Large PV - 1:1	19,539	\$ 150.00	\$ -	\$ 150.00	\$ 2,930,850
SIP DG @ \$0.14	1,231	\$ 140.00	\$ -	\$ 140.00	\$ 172,340
SIP DG @ \$0.13	2,333	\$ 130.00	\$ -	\$ 130.00	\$ 303,290
SIP DG @ \$0.12	6,725	\$ 120.00	\$ -	\$ 120.00	\$ 807,000
SIP DG @ \$0.11	9,592	\$ 110.00	\$ -	\$ 110.00	\$ 1,055,120
SIP DG @ \$0.10	6,676	\$ 100.00	\$ -	\$ 100.00	\$ 667,600
SIP DG @ \$0.09	9,601	\$ 90.00	\$ -	\$ 90.00	\$ 864,090
SIP DG @ \$0.08	5,288	\$ 80.00	\$ -	\$ 80.00	\$ 423,040
SIP DG @ \$0.07	3,510	\$ 70.00	\$ -	\$ 70.00	\$ 245,700
SIP DG @ \$0.06	2,925	\$ 60.00	\$ -	\$ 60.00	\$ 175,500
SIP DG @ \$0.05	3,510	\$ 50.00	\$ -	\$ 50.00	\$ 175,500
Total Distributed Generation	85,339				\$ 9,363,580
Solar Energy					
Algodones/Aztec 3:1	120	\$ -	\$ (14.88)	\$ (14.88)	\$ (1,786)
Solar Demo with Batteries	1,078	\$ 474.37	\$ -	\$ 474.37	\$ 511,371
PNM Owned 22 MW PV	50,965	\$ 174.31	\$ -	\$ 174.31	\$ 8,883,709
Total Solar	52,163				\$ 9,393,294
Other - Biogas (RECs)	-	\$ 10.00	\$ 0.88	\$ 10.88	\$ -
Total Existing Resources	492,502				\$ 19,981,624
Proposed Resources & Costs					
Santa Fe Hydro	600	\$ 20.00	\$ -	\$ 20.00	\$ 12,000
SIP DG @ \$0.02	4,680	\$ 20.00	\$ -	\$ 20.00	\$ 93,600
Total Proposed	5,280				\$ 105,600
Total All Resources	497,782				\$ 20,087,224

Wind & Solar Energy Purchase at Levelized Cost PNM Ex. REIA 1-8.

DG Revisions for billing system upgrades included in Costs. (CDB Test, P 15, L 22)

Levelized RCT Cost Calculation Existing Resources	2013 RECs MWh	Procurement Cost \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Procurement Cost Savings \$/MWh - REC	Total Cost - 2013 \$
Wind Energy Purchases	355,000	\$ 27.25	\$ (23.80)	\$ 3.45	1,224,750
Total Distributed Generation	85,339				\$ 9,363,580
Solar Energy					
Algodones/Aztec 3:1	120	\$ -	\$ (14.88)	\$ (14.88)	\$ (1,786)
Solar Demo with Batteries	1,078	\$ 474.37	\$ -	\$ 474.37	\$ 511,371
PNM Owned 22 MW PV	50,965	\$ 174.31	\$ -	\$ 174.31	\$ 8,883,709
Total Solar	52,163				\$ 9,393,294
Other - Biogas (RECs)	-	\$ 10.00	\$ 0.88	\$ 10.88	\$ -
Total Existing Resources	492,502				\$ 19,981,624
Proposed Resources & Costs					
Santa Fe Hydro	600	\$ 20.00	\$ 1.74	\$ 21.74	\$ 13,044
SIP DG @ \$0.02	4,680	\$ 20.00	\$ 1.74	\$ 21.74	\$ 101,743
Billing System Upgrade					
Total Proposed	5,280				\$ 114,787
Total All Resources	497,782				\$ 20,096,411

**DIRECT TESTIMONY OF R. DWIGHT LAMBERSON
CASE NO. 11-00265-UT**

Exhibit RDL - 6

SPS
10.00015. UT

Case No. 10-_____-UT
Direct Testimony
Of
Ruth M. Sakya

- 1 Q. Will the SunE PPAs cause SPS to exceed its RCT?
2 A. No. When all of the renewable energy portfolio costs, including the SunE PPAs,
3 are tallied and compared to the RCT, the costs are less than the RCT (see line 16
4 of Table 1 below). Table 1 presents the summary results of SPS's analysis.

5 Table 1

<u>Line No.</u>	<u>Description</u>	<u>Impact</u>
1	<u>RCT (in dollars)</u>	
2	NM Retail Revenues	\$ 286,441,832
3	Less Large Customer Reduction	64,039,334
4	Net NM Retail Revenues	\$ 222,402,498
5	Multiplied by 2012 RCT %	2.00%
6	RCT (in dollars)	\$ 4,448,050
7		
8	<u>Resource Costs</u>	
9	DG (Includes Program & Admin)	\$ 1,430,800
10	WREGIS	9,214
11	Wind RECs	1,250,000
12	Other Renewable Technologies	-
13	SunE PPAs (incl. carbon offsets)	(3,762,456)
14	Total Resource Costs	\$ (1,072,442)
15		
16	(Over)/Under RCT	\$ 5,520,492

6
7 Accordingly, the results demonstrate that the SunE PPAs will be acquired within
8 the statutory cost cap provisions.

EPE
11.00263.UT

EL PASO ELECTRIC COMPANY
Calculated Incremental Cost and Factors for
Renewable Resource Procurement for the 2012 and 2013 Procurement Years

Line No.	Description	Reference	2012	2013
<u>REC Purchases without Energy</u>				
1	PNM Wind REC Purchase	Exhibit RA-4	\$ -	\$ -
2	SPS REC Purchase	Exhibit RA-4	720,000	760,000
3	Total REC Purchases without Energy (Net of No Avoided Costs)	Sum (1 + 2)	<u>\$ 720,000</u>	<u>\$ 760,000</u>
<u>CRLEF Project Biomass REC Purchase</u>				
4	CRLEF Project REC Purchase	Exhibit RA-4	\$ 174,645	\$ 173,678
5	2011 Levelized Fixed Cost per MWh of Combined Cycle (1)	Workpaper	\$ -	\$ -
6	MWh Purchased from CRLEF	Exhibit RA-4	11,643	11,579
7	Total Avoided Fixed Cost of Combined Cycle	Line 5 * Line 6	<u>\$ -</u>	<u>\$ -</u>
8	Net Incremental CRLEF Costs above Avoided Costs	Line 4 - Line 7	<u>\$ 174,645</u>	<u>\$ 173,678</u>
<u>Solar Energy Purchases</u>				
9	SWEC Solar Energy Purchases	Exhibit RA-4	\$ 1,474	\$ 1,517
10	Hatch Solar Energy Purchases	Exhibit RA-4	1,632,799	1,632,783
11	NRG SunTower Solar Energy Purchases	Exhibit RA-4	6,770,781	6,720,056
12	SunEdison Solar Energy Purchases	Exhibit RA-4	4,371,331	5,869,119
13	Small & Medium System REC Purchase Programs - Solar	Workpaper	483,075	508,212
14	Total Solar Energy Purchases	Sum (9 thru 13)	<u>\$ 13,259,460</u>	<u>\$ 14,731,687</u>
15	2011 Levelized Avoided Cost per MWh of Combustion Turbine (2)	Workpaper	\$ 165,224	\$ 165,224
16	MWH Solar Energy Purchases	Exhibit RA-4	111,354	125,838
17	Total Avoided Cost of Combustion Turbine	Line 15 * Line 16	<u>\$ 18,398,403</u>	<u>\$ 20,791,408</u>
18	Net Incremental Solar Energy Costs above Avoided Costs	Line 14 - Line 17	<u>\$ (5,138,943)</u>	<u>\$ (6,059,721)</u>
<u>Wind Energy Purchases</u>				
19	Small & Medium System REC Purchase Programs - Wind	Workpaper	\$ 1,325	\$ 1,325
20	Applicable Avoided Costs		-	-
21	Net Incremental Wind Energy Costs above Avoided Costs	Line 19 - Line 20	<u>\$ 1,325</u>	<u>\$ 1,325</u>
22	Total Annual Incremental Cost of Renewable Procurement Plan	Sum(3, 8, 18 & 21)	<u>\$ (4,242,974)</u>	<u>\$ (5,124,719)</u>

NOTE:

(1) Levelized Fixed Cost per MWh assumed to be \$0 per MWh because this is a purchase from a QF cogeneration facility.

(2) Levelized Cost per MWh of GE LMS100 Combustion Turbine based on EPRI TAG calculation and fuel cost projection from March 2011 EIA Annual Energy Outlook forecast of natural gas prices for delivery to electric generation.

10 EPE
10-00200-WT

EL PASO ELECTRIC COMPANY
Calculated Incremental Cost and Factors for
Renewable Resource Procurement for the 2011 and 2012 Procurement Years

Line No.	Description	Reference	2011	2012
<u>REC Purchases without Energy</u>				
1	PNM Wind REC Purchase	Exhibit RA-1	\$ 1,002,251	\$ -
2	SPS REC Purchase	Exhibit RA-1	900,000	700,000
3	Total REC Purchases without Energy (Net of No Avoided Costs)	Sum (1 + 2)	\$ 1,902,251	\$ 700,000
<u>CRLEF Project Biomass REC Purchase</u>				
4	CRLEF Project REC Purchase	Exhibit RA-1	\$ 159,000	\$ 182,850
5	2010 Levelized Fixed Cost per MWh of Combined Cycle (1)	Workpaper	\$ 24,628	\$ 24,628
6	MWh Purchased from CRLEF	Exhibit RA-1	10,600	12,190
7	Total Avoided Fixed Cost of Combined Cycle	Line 5 * Line 6	\$ 261,058	\$ 300,217
8	Net Incremental CRLEF Costs above Avoided Costs	Line 4 - Line 7	\$ (102,058)	\$ (117,367)
<u>Solar Energy Purchases</u>				
9	SWEC Solar Energy Purchases	Exhibit RA-1	\$ 1,493	\$ 1,508
10	Hatch Solar Energy Purchases	Exhibit RA-1	1,279,162	1,632,783
11	NRG SunTower Solar Energy Purchases	Exhibit RA-1	-	5,582,310
12	SunEdison Solar Energy Purchases	Exhibit RA-1	-	5,869,119
13	Small & Medium System REC Purchase Programs - Solar	Workpaper	133,470	175,417
14	Total Solar Energy Purchases	Sum (9 thru 13)	\$ 1,414,125	\$ 13,262,137
15	2010 Levelized Avoided Cost per MWh of Combustion Turbine (2)	Workpaper	\$ 159,932	\$ 159,932
16	MWh Solar Energy Purchases	Exhibit RA-1	11,840	115,261
17	Total Avoided Cost of Combustion Turbine	Line 15 * Line 16	\$ 1,893,643	\$ 18,433,921
18	Net Incremental Solar Energy Costs above Avoided Costs	Line 14 - Line 17	\$ (479,518)	\$ (5,171,784)
<u>Wind Energy Purchases</u>				
19	Small & Medium System REC Purchase Programs - Wind	Workpaper	\$ 210	\$ 210
20	Applicable Avoided Costs		-	-
21	Net Incremental Wind Energy Costs above Avoided Costs	Line 19 - Line 20	\$ 210	\$ 210
22	Total Annual Incremental Cost of Renewable Procurement Plan	Sum(3, 8, 18 & 21)	\$ 1,320,885	\$ (4,588,941)

NOTE:

(1) Levelized Fixed Cost per MWh of 2X1 7EA Combined Cycle based on EPRI TAG calculation.

(2) Levelized Cost per MWh of GE LMS100 Combustion Turbine based on EPRI TAG calculation and fuel cost projection from March 2010 EIA Annual Energy Outlook forecast of natural gas prices for delivery to electric generation (Released 12-2009).

EPE
09-00259-UT

EL PASO ELECTRIC COMPANY
Calculated Incremental Cost and Factors for
Renewable Resource Procurement for the 2010 and 2011 Procurement Years

Line No.	Description	2010	2011
1	PNM Wind REC Purchase	\$ 763,305	\$ 1,002,251
2	SPS REC Purchase	32,490	-
3	CRLEF Project REC Purchase	138,000	159,000
4	Small System REC Purchase Program	71,193	132,567
5	Total Annual Incremental Cost of REC Purchases	<u>\$ 1,004,988</u>	<u>\$ 1,293,818</u>
6	SWEC Solar Energy Purchase	\$ 1,493	\$ 1,493
7	ESOLAR Solar Energy Purchase	-	10,271,450
8	Total Annual Cost of Solar Energy Purchases	<u>\$ 1,493</u>	<u>\$ 10,272,943</u>
9	Total Annual Energy Purchased (MWh)	11.48	80,603.48
10	Total Annual Cost per MWh of Solar Energy Purchases	\$ 130.04	\$ 127.45
11	2010 Levelized Cost per MWh of Combustion Turbine Alternative (1)	\$ 224.12	\$ 224.12
12	Incremental Cost per MWh of Solar Energy Purchases	\$ (94.08)	\$ (96.67)
13	Total Annual Incremental Cost of Solar Energy Purchases	<u>\$ (1,080)</u>	<u>\$ (7,791,667)</u>
14	Total Annual Incremental Cost of Renewable Resource Procurement	\$ 1,003,908	\$ (6,497,849)

NOTE:

(1) Levelized Cost per MWh of Combustion Turbine based on EPRI TAG calculation and fuel cost projection from March 2009 EIA Annual Energy Outlook forecast of natural gas prices for delivery to electric generation.

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION


IN THE MATTER OF THE PUBLIC SERVICE COMPANY)
OF NEW MEXICO'S REVISED RENEWABLE ENERGY)
PORTFOLIO PROCUREMENT PLAN FOR 2012,)
Case No. 11-00265-UT)
PUBLIC SERVICE COMPANY OF NEW MEXICO,)
Petitioner.)
_____)

AFFIDAVIT OF R. DWIGHT LAMBERSON

STATE OF NEW MEXICO)
)ss.
COUNTY OF SANTA FE)

I, R. Dwight Lamberson, do hereby swear, depose and state as follows:

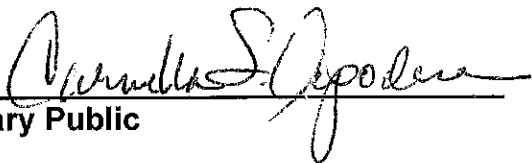
I hereby attest that I have read the foregoing **Direct Testimony of R. Dwight Lamberson**, and the statements contained therein are true and accurate to the best of my knowledge and information.



R. Dwight Lamberson
10.3.2011
Date

SUBSCRIBED AND SWORN to before me this 3rd day of October, 2011.

My Commission
Expires: 9/15/2013



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DATED this 3rd day of October, 2011.

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