BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF NEW MEXICO FOR REVISION OF ITS RETAIL ELECTRIC RATES PURSUANT TO ADVICE NOTICE NO. 507	)	**Case No. 14-00332-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant	)	

DIRECT TESTIMONY AND EXHIBITS

OF

CHRIS M. OLSON

DECEMBER 11, 2014

NMPRC CASE NO. 14-00332-UT
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WITNESS FOR
PUBLIC SERVICE COMPANY OF NEW MEXICO

DIRECT TESTIMONY OF
CHRIS M. OLSON
NMPRC CASE NO. 14-00332-UT

I. INTRODUCTION AND PURPOSE

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

A. My name is Chris M. Olson. I am Vice President, Generation, for Public Service Company of New Mexico ("PNM"). My business address is 2401 Aztec Road, NE, Albuquerque, New Mexico 87107.

Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS VICE PRESIDENT, GENERATION.

A. As Vice President, Generation, I am responsible for the strategic direction and operation of PNM's generating resources to ensure that they continue to provide safe, reliable and efficient electricity generation to customers within PNM's service territory. The functions I oversee include generation operations, maintenance, engineering, construction, fuel and power procurement, wholesale power marketing and other services related to PNM's generation fleet for PNM's customers. I also have executive oversight responsibility for the operation of the San Juan Generating Station ("San Juan" or "SJGS") on behalf of its various owners, in conformity with the San Juan Project Participation Agreement.

Q. HAVE YOU PREPARED A STATEMENT OF YOUR EXPERIENCE AND QUALIFICATIONS?

A. Yes. My educational background and professional experience are outlined in PNM Exhibit CMO-1.

Q. HAVE YOU PREVIOUSLY TESTIFIED IN ADMINISTRATIVE PROCEEDINGS ?

A. I testified as a witness for PNM at the September 5, 2013, proceeding before the New Mexico Environmental Improvement Board ("NMEIB") where the revision to the New Mexico Regional Haze State Implementation Plan ("Revised SIP') was adopted for purposes of New Mexico's compliance with the U.S. Environmental Protection Agency's ("EPA") Regional Haze Rule. The Revised SIP includes a new determination of Best Available Retrofit Technology ("BART") for San Juan which requires the retirement of Units 2 and 3 and the retrofit of selective non-catalytic reduction ("SNCR") on San Juan Units 1 and 4. I also submitted a series of pre-filed testimony in NMPRC Case. No. 13-00390-UT relating to PNM's proposed retirement of San Juan Units 2 and 3 and the cost of necessary emissions controls equipment for San Juan to comply with the EPA's Regional Haze Rule and other air quality requirements.

DIRECT TESTIMONY OF
CHRIS M. OLSON
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Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. I detail and support certain generation-related cost elements of PNM's revenue requirements in this case. First, I discuss PNM's capital investments in generation facilities for the period from the end of the Base Period (July 1, 2014) through the end of the Test Period (December 31, 2016). [1] Second, I address the necessary non-fuel operations and maintenance ("O&M") expenditures relating to PNM's generation fleet utilized in developing the Base Period expenses. Third, I address the necessary costs related to fuel transportation for PNM's natural gas generation facilities. Specifically, in the sections of my testimony that follow, I discuss:

- PNM's generation resources and their role in PNM's generation portfolio;
- PNM's capital budgeting processes, including how priorities are established and how capital budgets are monitored and controlled;
- Major capital investments required for the safe, reliable and efficient operation of PNM's electric generating facilities while complying with all federal and state regulations;
- How Generation O&M expenditures are budgeted and monitored;
- Generation O&M expenditures included in the Base Period;
- Appropriate Base Period adjustments for Generation O&M expenditures; and
- Costs associated with gas transportation for PNM's gas generation facilities.

[1] The period between the end of the Base Period (July 1, 2014) and the end of the Test Period (December 31, 2016) is referred to as the "Capital Investment Period."

II. SUMMARY OF KEY CONCLUSIONS

Q. WHAT ARE THE KEY CONCLUSIONS OF YOUR TESTIMONY?

A. I have reached a number of conclusions, including:

- PNM uses a thorough capital budgeting process to prioritize generation capital projects and carefully monitors and controls capital expenditures. The generation capital investments during the Capital Investment Period are the result of this process and are reasonable and necessary for PNM to continue meeting its customers' energy needs in a safe, reliable and cost-effective manner.
- PNM's generation O&M costs are the product of prudent planning and reasonable cost controls. The Base Period O&M expenses represent costs actually and necessarily incurred by PNM to safely and reliably operate PNM's generation facilities.
- PNM's scheduled plant maintenance is necessary for cost-effective operation. No single year's O&M expenses accurately represent the level of scheduled maintenance costs that will be incurred during the period that PNM's proposed new rates will be in effect. Therefore, it is necessary to use a normalized approach to determine the appropriate amount of scheduled maintenance cost to include in the Test Period.
- It is appropriate to make certain adjustments in forecasting future O&M expenses as a result of planned additions and retirements in PNM's generation resource portfolio.

- PNM will incur additional fuel-related expenses associated with the transportation of natural gas needed to fuel PNM's gas generation facilities in the Test Period.

III. OVERVIEW OF PNM'S GENERATION RESOURCES

Q. PLEASE DESCRIBE PNM'S PORTFOLIO OF GENERATION RESOURCES CURRENTLY IN SERVICE AND ANTICIPATED TO BE IN SERVICE THROUGH THE END OF THE TEST YEAR.

A. PNM's diverse mix of generation resources includes coal, nuclear, natural gas and renewable resources. While PNM owns most of its generation capacity, either outright or in participation with other owners, some of PNM's generation resources are leased or are available through power purchase agreements ("PPAs") where PNM has a contractual entitlement to the full output of the facility. PNM's New Mexico jurisdictional generation resources that are anticipated to be in service by January 31, 2016 are listed on Table CMO-1.

Table CMO-1
PNM's Generation Resources

Generating Plant	Fuel Type	PNM Share	PNM Share of Capacity (MW's)	In-Service Date	Operating Agent
San Juan	Coal	47 %	783	1973-1982	PNM
Palo Verde 1 & 2	Nuclear	10.2 %	268	1985-1986	APS
Afton	Natural Gas	100 %	230	2007	PNM

Four Corners 4 & 5	Coal	13 %	200	1969-1970	APS
New Mexico Wind Energy Center (PPA)	Wind	N/A	200	2003	FPL
Luna Energy Facility	Natural Gas	33.3 %	185	2006	PNM
Reeves	Natural Gas	100 %	154	1958-1962	PNM
Valencia (PPA)	Natural Gas	N/A	145	2008	SWG Valencia Power LLC
Rio Bravo (formerly Delta)	Natural Gas	100%	138	2001	PNM in 2014
Lordsburg	Natural Gas	100 %	80	2002	PNM
44 MW Utility Scale Solar Project	Solar	100%	44	2011-2013	PNM
Dale Burgett Geothermal (PPA)	Geothermal	N/A	8	2014	Cyrq Energy
Red Mesa Wind Energy Center (PPA)	Wind	N/A	102	2015	NextEra Energy
23 MW Utility Scale Solar Project	Solar	100%	23	2015	PNM
40 MW Utility Scale Solar Project	Solar	100%	40	2016	PNM
La Luz Energy Center	Natural Gas	100%	40	2016	PNM
TOTAL			**2640**		

Q. WHICH OF THE RESOURCES LISTED IN TABLE CMO-1 ARE PRESENTLY SERVING PNM CUSTOMERS?

A. All of the facilities listed in Table CMO-1 currently serve PNM's customers with the exception of the La Luz Energy Center ("La Luz"), the Red Mesa Wind Energy Center ("Red Mesa"), the 23 MW Utility Scale Solar Project ("23 MW Solar Project") and the 40 MW Utility Scale Solar Project ("40 MW Solar Project").

Q. EXCLUDING FOR THE MOMENT THE FACILITIES THAT HAVE NOT YET BEEN PLACED IN SERVICE, ARE ALL OF THE GENERATION RESOURCES LISTED ON TABLE CMO-1 NECESSARY TO PROVIDE RELIABLE SERVICE TO PNM'S CUSTOMERS?

A. Yes. Of course, the utilization rates of these facilities vary through the year depending on the type of resource. Most of the energy supplied to PNM's customers is generated at the base load facilities. San Juan, the Four Corners Power Plant ("Four Corners") and the Palo Verde Nuclear Generating Station ("Palo Verde") are base load facilities and typically operate at close to full capacity all year. San Juan is used for load following and is also used to supplement renewable generation resources when gas resources are not operating or adequate. Although Palo Verde Unit 3 is currently a non-New Mexico jurisdictional resource, PNM's customers have still benefited from its low cost operation because it is used for "hazard sharing" to assure adequate supplies to New Mexico retail customers when either Palo Verde Units 1 or 2 is off-line for maintenance.

The New Mexico Wind Energy Center ("NMWEC") and the existing 44 MW of utility scale solar generation are intermittent generation resources. The electricity from these facilities must be used as it is generated.

The gas-fired resources, consisting of the Afton Generating Station ("Afton"), the Luna Energy Facility ("Luna"), the Reeves Generating Station ("Reeves"), the Lordsburg Generating Station ("Lordsburg"), the Rio Bravo Generating Station[2] ("Rio Bravo") and the Valencia Energy Facility ("Valencia"), are operated on an as-needed basis when load and market conditions dictate, or when transmission constraints require load-side generation. These resources may be used for load following and to balance generation to load when load and intermittent resource generation fluctuate. The combined cycle gas plants (Afton and Luna) are also the primary resources used to regulate intermittent generation from the NMWEC.

Q. HOW IS ENERGY DELIVERED TO PNM'S CUSTOMERS FROM THESE FACILITIES?

All of PNM's generation resources utilize the bulk transmission system for delivery to PNM's load centers as described by PNM Witness Aubrey Johnson.

[2] Rio Bravo was formerly known as the Delta-Person Station. The Delta-Person Station previously provided energy to PNM's customers pursuant to a PPA. PNM has acquired the Delta-Person Station and it has been renamed.

Q. ARE THERE ANY PROPOSED CHANGES TO PNM'S EXISTING GENERATION FLEET IN THE NEAR FUTURE?

A. Yes. As noted earlier in my testimony, PNM is seeking to retire San Juan Units 2 and 3 effective December 31, 2017, in order to comply with the Revised SIP. This retirement represents a significant amount of base load generation for PNM and replacement resources will be required. To that end, PNM is seeking certificates of public convenience and necessity ("CCNs") from the New Mexico Public Regulation Commission ("NMPRC" or Commission") for an additional 132 MW in San Juan Unit 4 as well 134 MW in Palo Verde Unit 3 which represents PNM's 10.2% interest in that unit. PNM's application for approval of the retirement of San Juan Units 2 and 3 and the referenced CCNs is currently pending before the Commission in NMPRC Case No. 13-00390-UT. If approved, these changes will not take effect until after the end of the Test Period and, therefore, do not impact the capital investments included in PNM's cost of service in this case.

Q. PNM IS PURCHASING CERTAIN LEASES REPRESENTING 64 MW OF PALO VERDE UNIT 2. IS THIS CAPACITY NEEDED TO SERVE PNM'S CUSTOMERS?

A. Yes. As I discussed earlier, Palo Verde serves as an important source of base load generation for PNM's customers that is needed now and in the foreseeable future. In the face of the expiration of these leases in the near future, it was prudent for PNM to

purchase these leases to assure that important base load generation was not lost or interrupted. As discussed by PNM Witness Elisabeth Eden, the purchase of these leases were approved in Case No. 1995 and Case No. 2019, Phase I.

Q. PLEASE DESCRIBE THE ADDITIONAL GENERATION RESOURCES THAT PNM PLANS TO PLACE IN SERVICE DURING THE CAPITAL INVESTMENT PERIOD.

A. The following generation resources will be placed in service during the Capital Investment Period:

Rio Bravo. While not a new generation resource, PNM has acquired the Delta-Person Generating Station ("Delta") which is now called Rio Bravo. Delta previously supplied energy to PNM's customers under a PPA. That PPA is no longer operative due to PNM's acquisition of Rio Bravo.

Red Mesa. PNM will begin procuring energy from the Red Mesa under a long-term PPA beginning January 1, 2015.

23 MW Solar Project. PNM's 23 MW Solar Project was approved by the Commission in 2013 and is expected to be fully in service by the end of 2014.

La Luz. La Luz is a 40 MW gas peaking plant that was approved in NMPRC Case No. 13-00175-UT. This facility is needed for voltage regulation and to meet summer peak demand in 2016 and is forecasted to be in service by December 2015.

40 MW Solar Project. PNM received Commission approval for a 40 MW Solar Project in its Renewable Energy Portfolio Procurement Plan filing in NMPRC Case No. 14-00158-UT. The 40 MW Solar Project is expected to be fully in service by the first quarter of 2016.

Q. ARE ALL OF THESE ADDITIONAL GENERATION RESOURCES NECESSARY TO SERVE PNM'S NEW MEXICO CUSTOMERS?

A. They are. This is addressed in the PNM 2014 Integrated Resource Plan ("IRP"). There is a current and future need for all of PNM's existing and proposed generation resources. The blend of resource types – coal and nuclear baseload, gas intermediate and peaking, renewable generation and energy efficiency programs – are required to reliably and cost-effectively provide electricity to PNM's customers. Most of the energy supplied to PNM's customers is generated by the low cost, base load resources. PNM must continue to invest capital and incur O&M expenses for its existing and planned generation resources to maintain reliability and cost-effectiveness.

IV. PNM'S GENERATION CAPITAL INVESTMENTS

Q. WHAT TOPICS DO YOU ADDRESS IN THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section of my testimony, I address the capital costs associated with the additional generation resources that I just described. I also discuss PNM's capital investment plan for existing generation facilities during the Capital Investment Period and summarize the benefits of, and justification for, making these investments. In addition, I show how the investments were projected and that the amounts are reasonable forecasts of the level of investment needed through the end of the Test Period.

Q. WHAT ARE THE CAPITAL COSTS THAT PNM EXPECTS TO INCUR WITH RESPECT TO THE GENERATION RESOURCES YOU DESCRIBED AS BEING PLACED INTO SERVICE DURING THE CAPITAL INVESTMENT PERIOD?

A. I prepared Table CMO-2 which shows the estimated capital costs associated with each of these new generation resources that PNM will incur during the Capital Investment Period.

Table CMO-2
Capital Costs for Generation Resources
Added During Capital Investment Period

Generating Plant	Estimated Capital Costs[3]
40 MW Utility Scale Solar Project	$79.3 Million
La Luz Energy Center	$56.6 Million[4]
23 MW Utility Scale Solar Project	$45.8 Million[5]
Rio Bravo (formerly Delta)	$38.0 Million
Total	**$219.7 Million**

Q. WHY DOES THE RED MESA FACILITY NOT APPEAR ON THE LIST?

A. As noted above, Red Mesa will provide generation pursuant to a PPA. Therefore, PNM will not incur any capital or O&M costs associated with Red Mesa.

Q. WHAT IS THE TOTAL PNM GENERATION CAPITAL INVESTMENT DURING THE CAPITAL INVESTMENT PERIOD?

A. PNM's estimated capital investments during the Capital Investment Period for new generation plant are $219.7 million. The additional capital investment in PNM's existing generation plant that is anticipated to be completed by December 31, 2016, is

[3] Represents estimated gross plant investment before adjustment for depreciation and other adjustments.
[4] This is in the 530 schedule and includes an adjustment moving land to the correct utility account which is plant held for future use.
[5] Total project clearing is for $46.9 million including the new transmission and development associated with the project.

estimated to be $397.5 million. These figures are gross plant investments before adjustments for depreciation and allocation to non-New Mexico jurisdictional customers.

Q. HOW DOES PNM SELECT CAPITAL PROJECTS RELATING TO EXISTING GENERATION FACILITIES?

A. There are two processes for capital budgeting for these generation projects. First, there is the process PNM uses for the generation facilities that PNM owns or for which PNM is the operating agent. Second, PNM participates in a similar process at Four Corners and Palo Verde, which are plants in which PNM has a partial ownership interest, but which PNM does not operate.

Q. PLEASE DESCRIBE THE BUDGET PROCESS USED FOR GENERATION FACILITIES THAT PNM OWNS OR OPERATES AS AGENT.

A. The budget process for generation facilities that PNM owns or operates as agent begins by identifying potential projects that are considered essential to meet applicable compliance requirements and for safe and reliable operations. The plant directors and relevant staff for each of PNM's generation facilities provide input on capital and O&M needs. PNM then develops cost estimates for the respective projects. The estimating process involves internal and external technical experts - engineers, manufacturers and other outside experts - who define the project scope and develop the cost estimates using

best available information for each project. Senior management reviews the projects for PNM and sets the final capital budget. In the case of the budgets for San Juan and Luna, where PNM acts as operating agent, PNM presents the proposed capital budgets to the respective owners at these two facilities for final approval. Throughout this process, PNM strives to balance the cost of each project with the benefit to customers that will be derived from the project.

Q. PLEASE DESCRIBE THE CAPITAL BUDGET PROCESS USED FOR FOUR CORNERS AND PALO VERDE.

A. Arizona Public Service Company ("APS") is the operating agent for both Four Corners and Palo Verde. Very much like PNM, APS follows a rigorous process to determine project prioritization, cost estimates and funding levels. APS presents the capital plan for Palo Verde and Four Corners to the respective ownership groups for each plant. The ownership groups are composed of a voting member from each participant in that plant. The owners scrutinize APS's plans, seek information and provide input on the proposed budgets. The final annual capital budgets are then put to a vote of each facility's owners and must be approved by the requisite voting majority.

Q. ONCE CAPITAL PROJECTS ARE APPROVED, HOW DOES PNM MINIMIZE COSTS TO CUSTOMERS?

A. PNM actively manages its capital projects to ensure that the projects are completed at the lowest reasonable cost and within budget. As I have described previously, each project is subject to a thorough scoping and design review process. PNM utilizes its Supply Chain team to competitively price materials and labor to achieve the lowest reasonable cost for customers. I hold my department managers accountable for completing projects on budget.

Q. WHAT PROCESS DOES PNM GENERATION USE TO MONITOR EXPENDITURES UNDER ITS CAPITAL BUDGET?

A. PNM Generation reviews the status of the capital budget during monthly meetings between the plant directors and the department managers at each facility. Additionally, management reviews are held between me and the plant directors, and the director of capital projects on a monthly basis. Luna and San Juan have additional budget reviews held among the members of each facility's respective ownership groups on a monthly basis. The goals of these reviews are to monitor the investments at each plant and make sure that expenditures are prudent and within the budgeted amount. Even with the best planning and oversight, equipment delivery delays and unforeseen scope changes may cause minor cost and schedule variances. In addition, non-budgeted capital projects may emerge during the course of a year to address required repairs or

replacements that were not foreseen. To complete these important unanticipated projects, and still meet the funding targets, some proposed projects may be postponed. As variances occur, they are investigated and offsets in the rest of the budget are identified and implemented. If, after accounting for offsets, adjustments are necessary, they are made either to the individual plant's budget or to the entire PNM Generation budget. Budget adjustments can also be made between PNM's Generation and PNM's Transmission and Distribution operations. The current capital budget represents the best available information at this time.

Q. HOW IS BUDGETING HANDLED WITH RESPECT TO FACILITIES THAT PROVIDE POWER TO PNM PURSUANT TO A PPA?

A. Because PNM does not own or operate any of the facilities covered by PPAs and only purchases power from these facilities, PNM is not involved in their budgeting process. Neither are their respective capital investments or O&M costs included in PNM's revenue requirements.

Q. CAN YOU ADDRESS SOME OF THE MORE SIGNIFICANT CAPITAL PROJECTS THAT ARE INCLUDED IN PNM'S REVENUE REQUIREMENTS IN THIS CASE?

A. Yes. I would like to highlight the more significant, i.e. greater than $5 million, capital projects to be undertaken during the Capital Investment Period. These

projects are for capital investments in PNM's existing generation facilities and do not include the capital costs for the acquisition of the new generation resources discussed previously. The described projects relate to four of PNM's generation resources including San Juan, Palo Verde, Four Corners and Afton. I address each of these facilities separately below.

A. San Juan Generating Station

Q. PLEASE PROVIDE ADDITIONAL BACKGROUND ON SAN JUAN AND ITS ROLE IN PNM'S RESOURCE PORTFOLIO?

A. San Juan Generating Station is a low-cost coal-fired power plant that PNM depends on as a baseload resource and for load following. It presently consists of four units and is located near Waterflow, New Mexico. San Juan currently produces approximately 50% of the energy used annually to supply our customers' electricity needs. Even with the proposed retirement of San Juan Units 2 and 3, San Juan will continue to be an important base load generation resource for PNM's customers. The plant has been in operation for over 40 years and is subject to the normal wear and tear that is associated with a base load plant that is also used for system regulation necessary to utilize renewable generation resources. To maintain needed reliability for the remaining years of use for Units 2 and 3 and the longer term use of Units 1 and 4, PNM must replace system components. PNM minimizes the cost impact of repairing San Juan by scheduling maintenance using a planned maintenance cycle.

Q. ARE THERE ANY SPECIFIC CAPITAL PROJECTS THAT WILL BE UNDERTAKEN WITH RESPECT TO SAN JUAN?

A. Yes. In addition to normal capital investments for ongoing operation, the owners of San Juan Units 1 and 4 are implementing the SNCR Project. The SNCR Project includes the installation of SNCR emission control technology on Units 1 and 4 in order to comply with the Revised SIP. In conjunction with the installation of SNCR, San Juan is being converted to a balanced draft configuration which is also included in the SNCR Project. The conversion to balanced draft is intended to assure that PNM continues to meet the National Ambient Air Quality Standards ("NAAQS") for particulate matter and to mitigate workplace exposure to ammonia emissions due to the installation of SNCR, among other reasons.

Q. HOW MUCH OF THE COST FOR THE SNCR PROJECT WILL BE INCURRED DURING THE CAPITAL INVESTMENT PERIOD?

A. PNM's share of the anticipated costs for the SNCR Project during the Capital Investment Period is $32.3 million for San Juan Unit 1 and $48.4 million for San Juan Unit 4. However, not all of these costs have been included in the Test Period cost of service. As explained by Mr. Monroy, PNM's revenue requirements for San Juan Unit 4 were adjusted to remove costs associated with the additional 132 MW of capacity that PNM is seeking approval to acquire in a separate proceeding.

Q. ARE THE COSTS FOR THE SNCR PROJECT NECESSARY?

A. Yes. They are required to comply with the EPA's Regional Haze Rule, Visibility Transport Rule and the NAAQS. The costs are also reasonable as confirmed by Mr. J. Edward Cichanowicz in NMPRC Case No. 13-00390-UT.

Q. WHAT ARE PNM'S PLANS FOR CAPITAL INVESTMENT IN SAN JUAN UNITS 2 AND 3?

A. Because of their proposed retirement, PNM will not make capital investments in Units 2 and 3 beyond what is reasonably necessary to keep them in operation through 2017.

Q. ARE THERE ANY OTHER SIGNIFICANT CAPITAL PROJECTS THAT WILL BE IMPLEMENTED AT SAN JUAN DURING THE CAPITAL INVESTMENT PERIOD?

A. There is one other San Juan capital project that I want to highlight. The owners of San Juan Unit 4 plan to replace its existing bottom ash removal system on SJGS Unit 4. The current bottom ash removal system is high maintenance and is the source of a disproportionate amount of lost availability. The San Juan Unit 4 owners intend to replace the existing system with a submerged flite chain conveyer which is the newest technology for bottom ash removal. PNM's estimated cost for this project is $5.1 million.

B. Palo Verde Nuclear Generating Station

Q. PLEASE PROVIDE ADDITIONAL INFORMATION ABOUT PALO VERDE AND ITS ROLE IN PNM'S GENERATION RESOURCE PORTFOLIO.

A. Palo Verde is located west of Phoenix, Arizona, and is the nation's largest nuclear generating station. The three units at Palo Verde came on line between 1986 and 1988 and have operating licenses that extend to 2046 or 2047. PNM owns 10.2% of each of the units at Palo Verde, but only Unit 1 and Unit 2 currently have CCNs to serve PNM's New Mexico jurisdictional customers. Palo Verde Unit 3 is a resource that was previously excluded from PNM's jurisdictional generating resources, but PNM is requesting a CCN for its 134 MW interest in Palo Verde Unit 3 in NMPRC Case No. 13-00390-UT. Palo Verde is an existing, reliable source of capacity and energy.

Q. WHAT ARE SOME OF THE SIGNIFICANT CAPITAL PROJECTS THAT THE PALO VERDE OWNERS PLAN TO MAKE DURING THE CAPITAL INVESTMENT PERIOD?

A. The owners of Palo Verde have identified a number of capital projects that will need to be implemented during the Capital Investment Period. On a collective basis, these projects represent a significant portion of PNM's capital spending related to generation resources. There are approximately 200 capital improvement initiatives that will be implemented at Palo Verde across all of the units. The capital costs discussed below are

for all three Palo Verde units. As detailed by Mr. Monroy, adjustment have been made to PNM's revenue requirements associated with Palo Verde because Unit 3 is not included in PNM's Test Period cost of service, and to account for sales to wholesale customers.

Nuclear generating units, including Palo Verde, must operate in compliance with Nuclear Regulatory Commission ("NRC") regulations and oversight. Plant operations are continuously reviewed by the NRC and failure to implement capital projects that are necessary for the safe and reliable operation of a nuclear plant can lead to regulatory action, including curtailment of operations in extreme situations.

Q. WHAT ROLE DOES CAPITAL INVESTMENT PLAY IN THE AVAILABILITY OF PALO VERDE?

A. Appropriate capital improvements are essential to insure that Palo Verde's availability factor remains at or above industry benchmarks. Palo Verde provides very cost-effective base load generation for PNM's customers. Therefore, the more that Palo Verde is available to meet the needs of PNM customers, the lower the cost of energy to customers.

Q. PLEASE DESCRIBE THE NATURE OF THE NECESSARY CAPITAL INVESTMENTS AT PALO VERDE DURING THE CAPITAL INVESTMENT PERIOD?

A. As I indicated before, there are several capital projects to be implemented across all of the Palo Verde units. The listed capital projects involve work to maintain the nuclear reactors, steam generation systems, turbine generators and related nuclear safety components. These capital projects total approximately $82.8 million during the Capital Investment Period. I have prepared CMO-Table 3 which includes a summary description of the projects and the costs for each project:

Table CMO Table 3
Palo Verde Capital Projects

Funding Project No.	Summary Description	Budget
72123410	This project represents 32 capital improvement initiatives on Unit 1. Major initiatives include expenditures to replace the generator excitation system; Reactor Coolant pump motor replacement; nuclear reactor control element assembly replacement and concrete replacement for the ultimate heat sink, spray pond.	$11.9 Million
72223410	This project represents 39 capital improvement initiatives on Unit 2. Major initiatives include expenditures to replace the generator excitation system; main transformer replacement; life extension work on the cooling towers; Fukushima modifications and the replacement of a nuclear reactor coolant pump motor.	$7.8 Million
72323410	This project represents 31 capital improvement initiatives on Unit 3. Major initiatives include expenditures to replace the generator excitation system; life extension work on the cooling towers; Fukushima modifications and HP turbine diaphragm replacement.	$9.3 Million

72423001	This is a multi-year security project that began in 2003. It involves the replacement of the electronic security system throughout all three units.	$8.3 Million
72423008	This is a multi-year project that began prior to 2013. This project involves capital improvement initiatives common across the generating facility. Major initiatives include Fukushima emergency response equipment; emergency equipment storage building; NATM replacement; extension of the Protected Area zone; security access system upgrades and cyber security regulation initiatives.	$5.3 Million
72423410	This project is similar to Project 72423008 and involves capital improvement initiatives common across the generating facility. Major initiatives include Fukushima emergency response equipment; emergency equipment storage building; NATM replacement; extension of the Protected Area zone; security access system upgrades and cyber security regulation initiatives.	$30.9 Million
72523410	This project involves capital improvement initiatives common across the generating facility. Major initiatives include Fukushima emergency response equipment; emergency equipment storage building; NATM replacement; extension of the Protected Area zone; security access system upgrades and cyber security regulation initiatives.	$9.3 Million
	Total	**$82.8 Million**

C. Four Corners Power Plant

Q. PLEASE PROVIDE SOME FURTHER BACKGROUND ON FOUR CORNERS AND ITS ROLE IN PNM'S GENERATION PORTFOLIO?

A. Four Corners is located near Fruitland, New Mexico and formerly consisted of five coal-fired generation units. Four Corners Units 1, 2 and 3 have been retired for purposes of compliance with the EPA's Regional Haze Rule. PNM does not own any interest in the retired units. PNM owns a 13% share of Four Corners Units 4 and 5, which it acquired in 1969 and 1970, respectively. PNM owns a total of 200 MW of base load capacity in Four Corners.

Q. ARE THERE ANY SPECIFIC CAPITAL INVESTMENTS AT FOUR CORNERS THAT PNM WISHES TO DETAIL?

A. Yes. PNM's share of the estimated total capital budget for Four Corners facility improvements during the Capital Investment Period is $11.2 million. The capital projects that will be implemented at Four Corners include, among other projects, the following:

- Replacement of Unit 4 HP Steam Turbine Main Stop Valve and Control Valve bodies. Estimated Cost: $1.2 million. The purpose of this project is to proactively avoid well joint failure, reduce potential safety risk and maintain long-term reliability.

- Phase I Water Piping Replacement. Estimated Cost: $ 1.0 million. This project involves the replacement of all potable, service and firewater piping, below grade mains and above ground headers. The purpose of this project is to ensure reliability of safety critical systems through replacement of degraded water piping and to maintain compliance with OSHA standards.
- Common Facility Building Replacement. Estimated Cost: $1.0 million. This project involves the construction of a new building to replace the existing Common Facility Building. The purpose of this project is to ensure that employees have a safe and accommodating work environment. The existing Common Facility Building has experienced settlement since it was constructed in 1978.
- Common Main Air Compressors Replacement. Estimated Cost: $1.4 million. This project involves the replacement of the two Allis Chambers air compressors with three centrifugal compressors, two high pressure centrifugal compressors including one 30,000 gallon low pressure, and one 60,000 gallon high pressure receiver, as well as an automation system, mist eliminators, pipe additions, and modification of two building replacements and one building extension. The purpose of this project is to reduce the risk of forced outages and loss of production.
- LP Field Rewind & Generator Rewedge. Estimated Cost: $2 million. This project involves the rewind of the Unit 5 Low Pressure generator field and re-

wedge stator by replacing the stator bars and end-winding support system. The purpose of this project is to reduce the risk of generator failure.

D. Afton Generating Station

Q. PLEASE PROVIDE SOME BACKGROUND INFORMATION ON AFTON?

A. Afton is a natural gas-fired generating plant located near La Mesa in the southern part of New Mexico. It consists of one General Electric ("GE") Frame 7 gas turbine, a heat recovery steam generator and a system turbine. Afton can be operated in a simple cycle mode or as a combined cycle generating facility. Power generated at Afton can be delivered to customers in southern New Mexico or to northern New Mexico via contracted transmission rights.

Q. PLEASE DESCRIBE THE CAPITAL INVESTMENTS THAT PNM WILL MAKE AT AFTON DURING THE CAPITAL INVESTMENT PERIOD.

A. The majority of the ongoing capital investment at Afton is performed under a Contractual Service Agreement ("CSA") between PNM and GE. Under the terms of the CSA, GE performs all required, periodic gas turbine major maintenance, which includes combustor inspections, hot gas path inspections and major inspections, on a prescribed schedule based on gas turbine operating hours and fired starts. The capital cost for the CSA during the Capital Investment Period is

$5.2 million associated with a gas turbine combustor inspection recently performed in November 2014.

Q. PLEASE PROVIDE MORE DETAIL ABOUT WHAT WORK WILL BE PERFORMED BY GE UNDER THE CSA

A. Gas turbine combustor inspections are performed every 450 starts or 12,000 operating hours, whichever occurs first, require approximately 10 day outages where all of the combustor parts (fuel nozzles, combustion sleeves, transition pieces, etc.) are replaced. Gas turbine hot gas path inspections, which are performed every 900 starts or 24,000 operating hours, whichever occurs first, require approximately 21 day outages where all of the combustor parts (fuel nozzles, combustion sleeves, transition pieces, etc.) and turbine parts (nozzles, blades, wear pads, etc.) are replaced. Gas turbine major inspections, which are performed every 2,700 starts or 72,000 operating hours, whichever occurs first, require approximately 45 day outages and include all of the work associated with a hot gas path inspection, plus the compressor and the generator are opened, inspected and tested, and the entire turbine rotor is removed from the case for de-blading and testing. In recent years, Afton has accumulated, on average, approximately 120 gas turbine starts per year. At this pace, combustor inspections are required about every 3 to 4 years and hot gas path inspections are required about every 7 to 8 years. As expected utilization of Afton increases in the coming

years, gas turbine starts and fired hours will also increase, shortening these maintenance intervals. Though it is difficult to precisely predict, it is estimated at this time that the first major inspection will be performed in about 2020.

Q. WHY DID PNM CHOOSE TO ENTER INTO THE CSA WITH GE INSTEAD OF USING SEPARATE CONTRACTS ON A CASE-BY-CASE BASIS FOR THE DESCRIBED WORK AT AFTON?

A. PNM chose to enter into the CSA with GE, as the gas turbine original equipment manufacturer, for a number of reasons which benefit PNM's customers. First, the payment terms of the CSA are structured to somewhat levelize the year-to-year cash flow associated with routine major maintenance on the gas turbine. Second, PNM has a small fleet of Frame 7 gas turbines and it would not be cost-effective to hire permanent engineers and millwrights with the expertise to manage and execute routine major maintenance on the combustion turbine. Staffing such expertise only becomes cost-effective when there is a larger fleet of turbines to manage. Finally, the CSA provides a mechanism to share risks related to any unexpected replacement costs. Under the terms of the CSA, GE absorbs any unexpected replacement costs for covered parts that do not perform as designed or whose operating life is shorter than expected. The unexpected costs that are avoided by the CSA would otherwise be passed on to PNM's customers.

Q. ARE SERVICE CONTRACTS, SUCH AS THE CSA, COMMON IN THE UTILITY INDUSTRY?

A. They are quite common, and for utilities such as PNM with a limited fleet of gas generation facilities, they represent the industry standard.

E. Other Generation Facilities

Q. ARE PNM'S CAPITAL INVESTMENTS DURING THE CAPITAL INVESTMENT PERIOD LIMITED TO THE FOUR FACILITIES THAT YOU JUST DISCUSSED?

A. No. There will be some level of capital investment at all of PNM's generation facilities during the Capital Investment Period. Attached as PNM Exhibit CMO-2 is a list of all of the capital projects which are anticipated to be completed and in service in the Capital Investment Period.

Q. HOW MUCH OF THE TOTAL GENERATION CAPITAL BUDGET FOR THE CAPITAL INVESTMENT PERIOD ARE ENCOMPASSED IN THE RESOURCE ACQUISITIONS AND CAPITAL PROJECTS YOU JUST DETAILED?

A. The capital investments detailed above at San Juan, Palo Verde, Four Corners and Afton total $185.0 million which represents about 47% of the total Generation capital budget for existing plants of $397.5 million.

V. PNM'S GENERATION NON-FUEL O&M EXPENDITURES

Q. WHAT TOPICS DO YOU ADDRESS IN THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section of my direct testimony, I address the PNM Generation O&M expenditures that were incurred in the Base Period to safely and reliably operate PNM's generation facilities. In particular, I:

- Describe the process used to establish PNM's generation O&M budget and the oversight and management of these expenditures;
- Confirm the reasonableness of the Base Period Generation O&M expenses utilized by Mr. Monroy in his forecasts for these expenses in the Test Year;
- Confirm the appropriateness of including estimated additional O&M costs for new generation facilities that will be placed in service before the end of the Test Period;
- Describe why it is appropriate to normalize the O&M expenses for certain PNM generation resources; and
- Describe the anticipated O&M savings for San Juan as a result of the retirement of San Juan Units 2 and 3 at the end of 2017.

Q. WHAT O&M EXPENDITURES ARE INCLUDED IN THE PNM GENERATION O&M BUDGET?

A. PNM's generation O&M expenses are the result of the day-to-day cost of safely and reliably operating PNM's generation resources and expenditures that are required to successfully execute the O&M work completed during scheduled maintenance. O&M expenses in both cases are comprised of several categories. The most significant expenses are the labor and labor-related expenses of the employees and contract workers that directly support PNM's plant operations/engineering, resource planning and development, and fuels.

Q. WHAT IS THE PROCESS THAT PNM GENERATION USES TO ESTABLISH THE O&M BUDGET?

A. PNM's O&M budget development is a multi-step process. Each department within PNM Generation reviews historic data from the previous years and projects forward five years. Examples of expense categories that are reviewed are staffing levels, payroll (both straight time and overtime), outside services, employee expenses, chemicals and materials, etc. Each department adjusts the projection based on historical data for known variances, such as scheduled maintenance work, additional contract studies, etc., and inputs into PNM's budgeting system. Senior management approves the budget.

Q. HOW DOES PNM HANDLE O&M BUDGETS FOR GENERATION RESOURCES THAT ARE JOINTLY OWNED WITH OTHER PARTIES?

A. PNM uses basically the same process that I just described in developing the O&M budgets for jointly owned facilities that include San Juan and Luna. However, the O&M budgets are then presented to the respective owner representatives for these two facilities for review and approval.

Q. HOW DOES PNM GENERATION DEVELOP SCHEDULED MAINTENANCE COST ESTIMATES?

A. For facilities that PNM operates, PNM Generation personnel develop scheduled maintenance costs by compiling a list of items that need to be addressed during each scheduled maintenance. Cost estimates are then developed using information related to cost of equipment/materials, any outside support services needed and various other incidental costs that may be incurred during the scheduled maintenance.

For facilities that PNM does not operate, the operating agent for those facilities prepares an O&M budget that PNM Generation personnel review. The owners of each generation facility must then vote to approve the O&M budgets.

Q. ONCE BUDGETS ARE ESTABLISHED, HOW DOES PNM MINIMIZE COSTS TO CUSTOMERS?

A. PNM actively manages projects to ensure that costs are consistent with budgeted amounts. Of course, some projects will come in above and others below budget. When necessary, PNM finds offsets to ensure that we achieve our overall O&M budget targets for Generation. As I have described previously, each project is subject to a thorough scoping and design review process. PNM utilizes its Supply Chain team to competitively price materials and labor to achieve the lowest cost for customers. I hold my plant directors accountable for completing projects on budget. This results in a process that meets operational and customer needs.

Q. WHAT PROCESS DOES PNM GENERATION USE TO MANAGE THE O&M BUDGET?

A. PNM Generation reviews the status of the O&M budget during monthly meetings between management and the plant directors of each facility. Additionally, reviews are also held between me and the department heads on a monthly basis. Luna and San Juan also have additional budget reviews held among the members of the respective ownership groups on a monthly basis. The goal of these reviews is to monitor the expenditures of each plant and make sure that expenditures are prudent and within the expected amount. Unforeseen circumstances can result in scope changes that can cause cost variances and lead to changes to the maintenance schedules. As noted

previously, PNM continually attempts to optimize scheduled maintenance as the need for maintenance work emerges at each unit and as work is completed during forced outages. As changes in scope and schedule result in variances to the budgeted costs, the variances are explained and offsets in the rest of the budget are identified. If after accounting for offsets, adjustments are necessary, adjustments are made either to the individual plant's budget or to the entire PNM Generation budget. In addition, inter-departmental budget adjustments can be made between PNM Generation and PNM Transmission and Distribution to achieve overall budgeting goals.

Q. ARE YOU FAMILIAR WITH THE GENERATION O&M EXPENSES THAT PNM WITNESS HENRY MONROY USED FOR HIS BASE PERIOD CALCULATION?

A. Yes. Mr. Monroy used the actual Generation O&M expenditures for the period between July 1, 2013 and June 30, 2014, in developing his Base Period O&M expenses. The expenditures were made in conformity with the O&M budgeting process that I just described and represent a reliable and reasonable foundation for Mr. Monroy's cost of service analysis.

Q. WHAT IS YOUR UNDERSTANDING OF HOW THE BASE PERIOD GENERATION O&M EXPENSES WERE USED TO DEVELOP THE TEST YEAR O&M EXPENSES?

A. As explained by Mr. Monroy, he started with the Base Period Generation expenditures and applied appropriate annual escalation factors to derive his Test Period numbers. He also made certain adjustments that he describes in his direct testimony.

Q. ONE OF THE ADJUSTMENTS THAT MR. MONROY MADE TO ARRIVE AT HIS TEST YEAR O&M EXPENSES WAS TO LEVELIZE GENERATION O&M COSTS RELATED TO POWER PLANT OUTAGES. DO YOU AGREE THAT SUCH AN ADJUSTMENT PROVIDES A MORE REPRESENTATIVE ESTIMATE OF ANNUALIZED GENERATION O&M COSTS?

A. Yes. Power plants are subject to periodic scheduled outages so that major maintenance can be performed. Outages, including procuring replacement generation, are typically very cost-intensive. Planned major outages at San Juan typically occur every two to three years on each unit. Planned outages at Palo Verde typically take place about every eighteen months on each unit. Depending on the year when outages are performed, they can skew any analysis of annual O&M expenses. Mr. Monroy analyzed the historical outage expenses incurred during the five year period from 2009 through 2013 to calculate an average outage expense. This is a reasonable adjustment to make in order to derive representative O&M costs to be used for the Test Period.

Q. ANOTHER ADJUSTMENT THAT MR. MONROY MAKES IN DEVELOPING HIS GENERATION O&M EXPENSES RELATES TO THE EXPECTED SAVINGS IN O&M DUE TO THE PROPOSED RETIREMENT OF SAN JUAN UNITS 2 AND 3. DO YOU AGREE THAT THIS IS AN APPROPRIATE ADJUSTMENT TO GENERATION O&M COSTS?

A. Yes. PNM anticipates some saving during the Test Period associated with the retirement of San Juan Units 2 and 3 in 2017. The long-term maintenance leading up to the final retirement of these two units will not be at the levels that would be expected if these units were to operate beyond 2017.

Q. HOW MUCH DOES PNM ANTICIPATE THAT IT WILL SAVE IN SAN JUAN O&M COSTS AS A RESULT OF THE PROPOSED RETIREMENT OF SAN JUAN UNITS 2 AND 3 IN 2017?

A. The estimated Test Period O&M costs for San Juan are approximately $2.6 million less that the Base Period O&M costs, exclusive of any adjustments for outages.

Q. MR. MONROY IS ALSO INCLUDING O&M COSTS FOR NEW FACILITIES THAT WILL BE IN SERVICE DURING THE TEST YEAR. IS THIS AN APPROPRIATE ADJUSTMENT TO MORE ACCURATELY ESTIMATE PNM'S O&M EXPENSES?

A. Yes. As I discussed above, it is anticipated that the 40 MW Solar Project will be approved and in service before the end of 2015. Likewise, La Luz is forecasted to be in service in December 2015. Rio Bravo is now a PNM-owned resource. The 23 MW Solar Project will be operational soon. There will be O&M costs associated with each of these facilities that are appropriate to include in the Test Period.

Q. ARE THE GENERATION O&M COSTS THAT PNM SEEKS TO RECOVERY IN THIS CASE REASONABLE?

A. Yes. The estimated O&M expenditures are reasonable because they are based on actual expenditures that were only incurred after undergoing a robust budgeting process and represent costs that are necessary to provide for the operation and maintenance of PNM's generation facilities to ensure that the lowest cost resources to PNM's customers are available as much as possible rather than having to make more expensive external market purchases of generation. Additionally, because these resources are necessary for the foreseeable future, PNM's customers will get the benefit of a cost-effectively maintained generation fleet.

VI. FUEL TRANSPORTATION COSTS FOR GAS PLANTS

Q. A FUEL-RELATED COST ELEMENT ADDRESSED IN MR. MONROY'S TESTIMONY DEALS WITH FUEL TRANSPORTATION COSTS FOR PNM'S GAS GENERATION FACILITIES. CAN YOU EXPLAIN THE BASIS FOR THESE COSTS?

A. PNM's gas generation facilities use natural gas for fuel. The natural gas is delivered to each facility via gas pipelines. The pipeline operators charge PNM for the transportation and delivery of natural gas to PNM's gas generation plants.

Q. WHAT ARE THE ARRANGEMENTS WHEREBY GAS IS TRANSPORTED TO PNM'S GAS FACILITIES?

A. PNM has transportation agreements with the pipeline operators. PNM is going to need to acquire additional gas transportation to ensure a reliable supply of fuel to its gas generation plants. For reliability considerations, PNM is shifting to more firm supplies instead of interruptible supplies. The cost for the gas transportation is $1.3 million.

VII. CONCLUSION

Q. DO YOU HAVE ANY CONCLUDING OBSERVATIONS?

A. Yes. Generating electricity is a very capital intensive enterprise. PNM has a portfolio of generation resources that has served its customers well and requires ongoing

investments to safely, reliably and efficiently operate in the future. The coal and nuclear base load plants have been the foundation of PNM's low cost generation , which is reflected in PNM's low rates. Investments in the baseload plants as well as the other units in PNM's generation fleet are necessary now and in the future to maintain the reliable level of service and low costs while complying with all federal and state regulations. The costs associated with investing in generation resources and operating and maintaining the generation resources that PNM is presenting in this rate case are reasonable and necessary to continue to provide cost-effective, reliable electricity to PNM's customers.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

GCG#519001

Résumé of Chris M. Olson

PNM Exhibit CMO-1

Is contained in the following page.

CHRIS M. OLSON

EDUCATIONAL AND PROFESSIONAL SUMMARY

Address: Public Service Company of New Mexico
Aztec Facility
2401 Aztec Road NE, Building A
Albuquerque, New Mexico 87107

Position: Vice President, PNM Generation, 2012 to Present

Previous Positions:

Corval Group, 2008 – 2012
Vice President, Power & Energy

DTE Energy, 2008
Director & Chief Engineer, Fossil Operations

Xcel Energy, 2000 – 2008
Plant Director, Sherburne County Generating Plant

Northern States Power, 1982 – 2008
General Manager, Regional Plants
Manager, NSP – Wisconsin Generation
Manager, Hydro Plants
Superintendent, A.S. King Plant
Engineer, Plant Engineering & Construction

Westinghouse Electric Corporation, 1980 – 1982
Field Service Engineer

Professional Affiliation:
Registered Engineer, State of Minnesota

Education:
University of Minnesota, Bachelor of Mechanical Engineering
University of Minnesota, Carlson School of Management, Minnesota Executive Program

PNM Capitol Projects

PNM Exhibit CMO-2

Is contained in the following 13 pages.

DIRECT TESTIMONY OF
CHRIS M. OLSON
NMPRC CASE NO. 14-00332-UT

PNM EXHIBIT CMO-2

Project No.	Project Description	Estimated Completion Date	Clearings Through End of Linkage	Clearings Through End of Test Period	Total
	Production Related				
70016108	Capitalization Policy changes co 3	12/31/19	379,120	94,585	473,705
70029905	Generation Reallocation Project 6	12/31/20	3,819,900		3,819,900
	Total Production Related		**4,199,020**	**94,585**	**4,293,605**
	Afton				
70716015	Afton Capital Improvements 2015	12/31/15	382,268	-	382,268
70716115	Afton Capital Improvements 2016	01/31/16	-	930,473	930,473
70716610	Afton minimum Load Limitation (OpFlex Turndown)	12/31/16	655,316	217,209	872,525
70717313	Afton Capital Improvements	12/31/15	291,505	-	291,505
70717913	STG - Mini Overhaul	12/31/13	36	-	36
70728913	Afton DCS	03/31/14	14	-	14
70730515	Afton Security Equipment	06/30/15	92,889	-	92,889
70716210	70716210 - Afton Contractual Svc Agreement	02/28/15	5,198,841	-	5,198,841
	Total Afton		**6,620,870**	**1,147,682**	**7,768,552**
	Lordsburg		-		
70316015	Lordsburg Capital Improvements 2015	12/31/15	54,610	-	54,610
70316114	Combustion Turbine Upgrades	07/14/14	1,148,892	-	1,148,892
70316115	Lordsburg Capital Improvements 2016	12/31/16	-	156,795	156,795
70317912	Lordsburg capital improvements	12/31/15	34,772	-	34,772
	Total Lordsburg		**1,238,274**	**156,795**	**1,395,069**

	Reeves				
71316014	Arc flash for Algones	07/01/14	7,584	-	7,584
71316314	NERC CIP	12/30/14	204,050	-	204,050
71316813	Reeves U1,U2 PSH Superheater Replacement	06/30/13	(1,118.47)	-	(1,118)
71316825	Reeves U3 Upper Economizer Replacement	06/31/16	-	550,635	550,635
71317114	U2 Transformer Sudden Pressure Relays (FM Global)	07/01/14	-	177	177
71317613	Cathodic Protection Line Filters	10/31/14	220,070	-	220,070
71317725	Reeves Units 2 & 3 Cooling Tower Upgrades	05/31/15	1,204,339	-	1,204,339
71328014	U1 Boiler Combustion Solution	08/31/14	156,803	-	156,803
71332913	Reeves Security Equipment	07/01/14	22	-	22
	Total Reeves		**1,791,749**	**550,812**	**2,342,562**
	Four Corners				
71519210	Four Corners Facility Improvement	N/A	4,763,887	6,409,196	11,173,082
	Total Four Corners		**4,763,887**	**6,409,196**	**11,173,082**
	Palo Verde 1&2				
72123410	PV capital structures all years all units	N/A	4,438,544	7,500,322	11,938,866
72223006	PV - 722 2006 (PV2 asset purchases) (5)	01/01/16	-	163,530,000	163,530,000
72223410	PV capital structures all years all units	N/A	6,535,997	1,268,494	7,804,491
	Total Palo Verde 1&2		**10,974,541**	**172,298,816**	**183,273,357**
	Palo Verde 3				
72323009	PV Unit 3 CBIs	N/A	145,706	-	145,706
72323410	PV capital structures all years all units	N/A	5,681,279	3,637,619	9,318,898
	Total Palo Verde 3		**5,826,985**	**3,637,619**	**9,464,604**

	Palo Verde Common				
72423001	PALO VERDE CBI	N/A	8,280,270	-	8,280,270
72423008	PV Common	N/A	-	5,322,259	5,322,259
72423009	PV Common CBIs	N/A	2,340,610	-	2,340,610
72423410	PV capital structures all years all units	N/A	19,895,707	10,979,114	30,874,821
72523009	PV Water Projects CBIs	N/A	1,370	-	1,370
72523410	PV capital structures all years all units	N/A	2,856,325	6,401,596	9,257,920
	Total Palo Verde Common		**33,374,283**	**22,702,969**	**56,077,251**
	Luna				
74416015	Luna Capital Improvements 2015	12/31/15	290,345	-	290,345
74416115	Luna Capital Improvements 2016	12/31/16	-	271,536	271,536
74416811	Luna Capital Improvements	12/31/15	178,962	-	178,962
74417010	Luna GE LTSA	12/31/15	4,156,007	-	4,156,007
	Total Luna		**4,625,314**	**271,536**	**4,896,851**
	San Juan				
76076416	Reverse SJ U4 Acquisition	N/A	(22,772,403.12)	(1,765,421.48)	(24,537,825)
76076616	Reverse SJ Common Acquisition	N/A	(2,346,808.46)	(1,631,003.41)	(3,977,812)
76076716	Reverse SJ U3&4 Acquisition	N/A	-	(31,350.56)	(31,351)
76116051	SJ U1 relay protection	03/30/15	5,218	-	5,218
76116112	Unit 1 Reheat Outlet Header	05/30/15	3,202,520	-	3,202,520
76116114	U1 Boiler Shutoff Platforms - 2014	12/31/14	269,216	-	269,216
76116214	Unit 1 Reheater	07/01/15	1,070,463	-	1,070,463
76116215	Unit 1 Absorber Sieve Trays	05/15/15	517,959	-	517,959
76116317	Unit 1 Bottom Ash Controls in DCS	05/30/15	129,785	-	129,785

76116320	Unit 1 Economizer and Flame Sprays	05/30/15	1,035,260	-	1,035,260
76116328	Unit 1 Roof replacement	09/30/16	-	76,948	76,948
76116329	Unit 1 Mercury Monitoring	12/31/13	(538.81)	-	(539)
76116330	Unit 1 Absorber Riser Tiling	04/30/15	571,376	-	571,376
76116331	Unit 1 Platforms 2013	12/31/13	(2,259.27)	-	(2,259)
76116332	Unit 1 Platforms - 2014	12/31/14	59,132	-	59,132
76116334	Unit 1 Platforms - 2015	09/30/15	51,355	-	51,355
76116335	Unit 1 Platforms - 2016	08/30/16	-	51,275	51,275
76116337	Unit 1 Main transformer replacement	04/15/15	3,861	-	3,861
76116414	SJ U1 Cooling Tower Manhole Rebuild	05/01/15	74,393	-	74,393
76116415	Unit 1 Economizer CO Controls	05/30/16	-	41,092	41,092
76116512	SJ U1 Acoustic Leak Detection System Installation	05/30/15	125,810	-	125,810
76116513	Unit 1 Main & Auxiliary Transformer Relays	05/30/15	70,777	-	70,777
76116515	Unit 1 CEM Replacement	05/30/16	-	230,938	230,938
76116622	Unit 1 Turbine Trip Block	05/30/15	334,971	-	334,971
76116714	Unit 1 Generator Fluz probe testing equipment	07/30/14	79,648	-	79,648
76116715	Unit 1 Primary Air Damper Replacement	05/30/15	233,103	-	233,103
76116814	Unit 1 Dewatering bin	10/30/15	646,333	-	646,333
76116914	Unit 1 Cooling tower fan deck & hot water basin	12/31/14	669,646	-	669,646
76116915	Unit 1 Absorber PH Probe Replacement	05/30/15	46,378	-	46,378
76117114	Unit 1 pond Decant Pit & Pipe Reroute	10/31/15	404,442	-	404,442
76117214	Unit 1 Absorber Exterior wall	11/30/14	369,928	-	369,928
76117432	Unit 1 Boiler Duct O2 Grid	05/29/15	354,877	-	354,877
76117514	Unit 1 DA & Tripper Deck Roof	12/01/14	261,903	-	261,903
76117532	Unit 1 Switchyard Controls to DCS	05/30/15	84,144	-	84,144
76117614	Unit 1 Motor Control Center 1A Replacement - 2015	05/30/15	124,306	-	124,306
76117618	Unit 1 cooling tower MCC's Replacement	06/30/15	1,366,244	-	1,366,244
76117619	Unit 1 Fire Protection Alarm Check Valve	12/31/14	41,951	-	41,951

76117632	Intelligent Sootblowing in DCS	03/18/14	1,840	-	1,840
76117714	Unit 1 Coal Piping Replacement - 2015	05/30/15	123,979	-	123,979
76117715	Condenser Retube	05/01/15	1,988,308	-	1,988,308
76117721	SJ U1 MCC Cubicle Buckets Replacements-2011-2015	09/15/14	118	-	118
76117724	Battery Charger Replacement	05/01/15	100,705	-	100,705
76117733	Unit 1 Arc Flash Mitigation	05/30/15	166,317	-	166,317
76117742	Pulverizer Housing Ceramic Installation	05/01/15	119,060	-	119,060
76117743	Bottom Ash Drag Chain Installation	01/31/15	23,005	-	23,005
76117744	Unit 1 Bottom Ash Casing Replacement	12/31/14	557,908	-	557,908
76117746	Unit 1 Demister Pad Replacement	04/15/15	124,263	-	124,263
76117747	Unit 1 Relay Protection-2015	12/30/15	84,256	-	84,256
76117749	Automatic Voltage Regulator Replacement	06/30/15	361,090	-	361,090
76117813	Unit 1 Cooling Tower Riser Coatings	04/30/13	38,869	-	38,869
76117821	SJ U1 feed pump supervisory instrumentation	05/01/15	253,952	-	253,952
76117825	Unit 1 Cooling Tower Slip Stream Filtration	08/31/16	-	46,107	46,107
76117914	Unit 1 Expansion Joint Replacement - 2015	05/30/15	517,163	-	517,163
76117915	Unit 1 Economizer Ash Removal	05/01/15	870,089	-	870,089
76117932	Unit 1 Absorber Nuclear Density Meters	11/30/14	96,219	-	96,219
76117934	Unit 1 Absorber Recirc Isolation Valce Install	05/01/15	296,001	-	296,001
76121912	SJ U1 SNCR	12/31/16	31,280,122	1,011,768	32,291,890
76128014	Unit 1 Foxboro I/A Version 8.8 Nerc	02/01/15	180,379	-	180,379
76128023	Unit 1 DCS Self-Documenting Software - 2015	12/02/15	245,000	-	245,000
76216017	Unit 2 Fire Protection Alarm Check Valve	09/15/14	43,246	-	43,246
76216121	SJ U2 MCC Cubicles Bucket Replacements	02/28/14	(646.86)	-	(647)
76216136	Unit 2 Replace Generator Hydrogen Monitor	05/30/14	5,090	-	5,090
76216323	Unit 2 Coal Piping Replacement	04/30/14	12	-	12
76216432	FLY ASH CONTROLS IN DCS	09/01/14	(5.92)	-	(6)
76216521	SJ U2 Replace Broken Undersized hangers	02/22/13	(6,951.74)	-	(6,952)

76217132	Replace Absorber Area Nuclear Density Meters	11/01/14	16,239	-	16,239
76217421	SJ U2 Pulverizer Classifier Blades	10/31/13	(5,853.26)	-	(5,853)
76228122	Unit 2 DCSSelf Document Software	09/30/14	130	-	130
76316314	Unit 3 Fire Protection Alarm Check Valve	12/31/14	43,847	-	43,847
76316532	Upgrade Sample Panel and Chemical Feed System	07/24/14	6,263	-	6,263
76317132	Absorber Mist Eliminator Wash Piping	07/31/13	42	-	42
76317221	SJ U3 New hanger - snubbers and support steel	03/30/14	(5,574.95)	-	(5,575)
76328014	Unit 3 Foxboro I/A Version 8.8 NERC	02/01/15	116,953	-	116,953
76328015	U3 DCS Self Documenting Software	02/28/15	256,247	-	256,247
76416012	Unit 4 Automatic Voltage Regulator Replacement	12/30/15	569,158	-	569,158
76416019	Unit 4 BT Supervisory Instrumentation Panel	12/30/15	126,951	-	126,951
76416021	Unit 4 FD/PA Fans Supervisory Instrumentation Equipment	12/31/15	93,507	-	93,507
76416025	Unit 4 Baghouse Airlock Isolation	12/30/15	166,362	-	166,362
76416028	Unit 4 Burner Front Fire Protection	12/31/14	-	165,749	165,749
76416029	Unit 4 Fire Protection Alarm Check Valve	12/31/14	36,729	-	36,729
76416034	Unit 4 MCC 4B Replacement - 2015	12/30/15	229,521	-	229,521
76416039	Unit 4 Bottom Ash Drag Chain	12/20/15	5,068,908	-	5,068,908
76416119	Unit 4 DCS Control Logic Modifications - 2015	12/15/15	207,089	-	207,089
76416127	Unit 4 Platforms - 2015	09/30/15	64,849	-	64,849
76416128	Unit 4 Platforms - 2016	09/30/16	-	64,605	64,605
76416132	DCS Control Logic Upgrades and Modifications	02/15/15	98,384	-	98,384
76416134	Unit 4 Relay Protection - 2015	12/30/15	77,600	-	77,600
76416212	Unit 4 Retube Condenser	12/30/15	2,669,176	-	2,669,176
76416215	Unit 4 Superheat Balancing TCs and Study	03/30/16	-	333,181	333,181
76416232	Field Instrumentation Upgrade	12/31/13	17,633	-	17,633
76416315	Unit 4 Condensate Polisher	08/31/16	-	1,664,933	1,664,933
76416334	Unit 4 Expansion Joint Replacement - 2015	12/30/15	666,398	-	666,398
76416414	Unit 4 Circ Water Pump Motor 4B	07/24/14	46,150	-	46,150

76416415	Unit 4 Hydrogen Dryer	12/30/15	526,912	-	526,912
76416424	Unit 4 Arc Flash Mitigation-2014	12/30/14	93,855	-	93,855
76416514	U4 Cooling Tower Raw Water Line Rep	07/30/14	165,880	-	165,880
76416515	Unit 4 Absorber PH Probe Replacement	12/30/15	59,903	-	59,903
76416532	Circ Water Motor Gypsum Fix	12/31/14	140,663	-	140,663
76416634	Unit 4 Coal Piping Replacement - 2015	12/30/15	153,498	-	153,498
76416715	Unit 4 Economizer CO Controls	10/30/16	-	59,565	59,565
76416732	Unit 4 Absorber Nuclear Density Meters	12/30/14	64,500	-	64,500
76416815	Unit 4 CEM Replacement	08/30/16	-	298,001	298,001
76416915	Unit 4 Cooling Tower Fan VFDs	07/30/14	-	497,247	497,247
76417015	Unit 4 Battery Bank A Replacement	12/30/15	43,319	-	43,319
76417115	Unit 4 Economizer Ash Removal System	12/30/15	1,807,111	-	1,807,111
76417221	SJ U4 AR Pump Gear Box Modifications	12/15/15	118,747	-	118,747
76417415	Unit 4 Absorber Polishing Sieve Tray	12/30/15	382,164	-	382,164
76417515	Unit 4 Attemperator Spray Valve Replacement	12/30/15	529,823	-	529,823
76421912	SJ U4 SNCR	03/31/16	47,069,574	1,304,817	48,374,390
76428015	Unit 4 Foxboro I/A Version 8.8 NERC	12/30/15	263,647	-	263,647
76428518	Unit 4 DCS Self-Documenting Software	12/30/15	343,906	-	343,906
76516013	SJ U1&2 Tripper Deck Fire Protection System	10/31/13	1,691	-	1,691
76516015	Unit 1&2 Sample Panel and Chemical Feedpump Controls	08/30/16	-	51,364	51,364
76516034	Units 1&2 Pulverizer Mill CO2 Inerting	09/30/15	70,977	-	70,977
76516036	Units 1&2 Maintenance Building Modification	09/30/16	-	100,472	100,472
76516072	SJ U1&2 Ash System Common Controls	11/30/14	206,919	-	206,919
76516114	Units 1&2 High Pressure Ash Water Pump Replacement	10/31/14	128,812	-	128,812
76516115	Units 1&2 Increase Sootblower Line Size	12/30/14	376,823	-	376,823
76516117	Units 1&2 Tripper Deck Lighting Relocation	07/31/16	-	110,095	110,095
76516215	Unit 1&2 Demineralizer Controls	06/30/16	-	41,020	41,020

76516510	Units 1&2 5B Tripper Belt Replacement	12/01/14	71,287	-	71,287
76516715	Units 1&2 Plant Air Compressor Replacement	08/30/16	-	385,570	385,570
76516717	Units 1&2 Roof Refurbishment - 2015	12/31/16	-	170,235	170,235
76517225	SJ U1&2 Spare Plant Air Compressor Motor	12/31/16	-	100,410	100,410
76517321	SJ Com U1&2 Ash Wtr Swgr (480V LC)	08/30/14	9,386	-	9,386
76517524	Units 1&2 Roof Refurbishment - 2014	11/30/14	161,261	-	161,261
76517723	Units 1&2 Sootblowing Air Compressor Replacement	07/01/13	44,671	-	44,671
76616019	Plant Common C&D Reclaim Coal Dust Suppression	12/01/14	439,510	-	439,510
76616023	Plant Common North Side Wastewater Electrical Auto Transfer	07/30/15	130,276	-	130,276
76616024	76616024 - Common Secondary Crusher Bldg Dus	01/30/15	-	-	-
76616025	Common Limestone Area Instrumentation Replacement	12/30/14	120,364	-	120,364
76616028	Plant Common Laboratory Roof	10/31/14	59,989	-	59,989
76616029	Plant Common Brine Concentrator 4 Pipe Replacements	12/31/14	110,795	-	110,795
76616030	Plant Common Brine Concentrator 4 Tube Bundle Bypass	08/31/16	-	250,105	250,105
76616031	Plant Common Brine Concentrator 5 Tube Bundle Bypass	09/30/15	251,948	-	251,948
76616035	Plant Common NSWW MCC-2 Cubicle Bucket Replacements - 2015	11/30/15	118,509	-	118,509
76616036	Plant Common Protection Relay Replacement - 2016	11/30/16	-	58,454	58,454
76616046	Plant Common Fiber Optic Cable Between PSPS NERC	12/01/15	165,399	-	165,399
76616051	Plant Common Coal Board Move to Limestone	05/31/16	-	187,163	187,163
76616054	Plant Common Roof Refurbishment - 2015	08/31/16	-	5,093	5,093
76616115	Common Cathodic Protection System	09/30/15	52,799	-	52,799
76616116	Common Coal and Ash Handling System 2016	12/30/16	-	3,615,690	3,615,690
76616120	Common Replace Coal Reclaim Chutes	04/30/16	1,189,284	857,674	2,046,958

76616133	Protection Relay Replacement - 2013	12/30/14	45,328	-	45,328
76616135	Plant Common Replace Piping Containing Asbestos at NSWW – 2015	09/30/15	118,502	-	118,502
76616136	Plant Common Replace Piping Containing Asbestos at NSWW – 2016	09/30/16	-	117,755	117,755
76616215	Common Coal Chute Air Cannons	11/30/16	-	147,305	147,305
76616222	Plant Common IDS/PS Installation and Tuning	12/31/14	182,315	-	182,315
76616225	Common Physical Security Enhancements	10/30/14	24,338	-	24,338
76616231	Plant Common Bulk Storage Tank Coating - 2015	08/30/15	176,119	-	176,119
76616233	Replace Piping Containing Asbestos at NSWW-2013	09/30/13	10,280	-	10,280
76616234	Plant Common Replace Piping Containing Asbestos at NSWW - 2014	10/31/14	86,600	-	86,600
76616235	Plant Common Evaporation Pond Heightening	02/28/16	-	1,029,337	1,029,337
76616311	SJ Plant Common PI Installation	12/31/13	(2,603.67)	-	(2,604)
76616315	Common Spare 3C Reclaim Conveyor Belt	01/30/15	90,341	-	90,341
76616320	Common Warehouse MCS Replacement	07/30/15	607,962	-	607,962
76616334	Plant Common Lake Outlet Line Coatings	04/01/14	360,287	-	360,287
76616415	Common Tripper Deck Chute	10/30/15	378,929	-	378,929
76616436	Plant Common 4A Fluid Drive Replacement	02/28/16	-	70,186	70,186
76616520	SJ common protection relay	01/31/15	127,509	-	127,509
76616536	Plant Common Administration Building HVAC Controls	10/30/16	-	78,612	78,612
76616815	Common NERC Test Lab Equipment	10/30/16	-	72,263	72,263
76616915	Common Oxidation Blower Backup Power	10/30/15	90,591	-	90,591
76617015	Common Oxidation Blower Separate PLC Control	07/30/16	-	60,209	60,209
76617032	Tripper Deck Dust Suppression	07/31/14	(19,088.57)	-	(19,089)
76617115	Common NERC Split MESH Network	12/30/15	176,202	-	176,202
76617132	Arc Flash Mitigation	12/30/14	10,211	-	10,211
76617215	Common River Station Instrumentation Upgrade	09/30/16	-	146,915	146,915

76617232	PLC and Instrumentation Upgrade-Lake Station	12/31/14	141,823	-	141,823
76617315	Common A&B Coal Reclaim System Refurbishment	12/30/15	583,362	-	583,362
76617332	Plant Common Shumway Arroyo Slurry Wall and Water Containment	10/30/15	3,965,714	0	3,965,714
76617415	Common Coal Belt On-Line Quality Analyzer	09/30/15	589,639	-	589,639
76617432	Raw Water Reservoir Slurry Wall	10/30/14	221,196	-	221,196
76617515	Common PBX Replacement and Backup Power	07/30/16	-	451,514	451,514
76617615	Common Lake Station Switchgear	07/30/15	1,831,964	-	1,831,964
76617715	Common River Station Pump Control Valve	10/30/15	72,373	-	72,373
76617724	Plant Common North Side Wastewater Product Line Replacement	01/31/15	295,520	-	295,520
76617732	NERC-CIP Rockwell Automation Asset Centre Deployment	08/30/14	43,134	-	43,134
76617815	Common NERC Firewall Upgrade	05/30/16	-	97,141	97,141
76617832	NERC-CIP Foxboro I/A 8.6 Secure A/D Server Installation	08/31/14	7,077	-	7,077
76617915	Common Scaffolding	10/30/15	301,137	-	301,137
76617932	Plant Common NERC CIP Change Management System	06/30/15	218,357	-	218,357
76628036	Plant Common Foxboro I/O and CP Replacement - Coal Handling	11/30/16	-	71,761	71,761
76628039	Plant Common CAG Test Lab Equipment NERC	06/30/15	111,329	-	111,329
76628042	Plant Common AB/RS View Hardware/Licensing (Virtualization) NERC	07/30/15	52,005	-	52,005
76628044	Plant Common Multifactor Authentication NERC	08/30/15	84,011	-	84,011
76628045	Plant Common Physical Security NERC	12/31/14	71,710	-	71,710
76628047	Foxboro I/A Version 8.8 Limestone / Coal NERC	11/30/14	170,181	-	170,181
76628066	Plant Common Limestone - Coal Handling DCS Self-Documenting Software	11/30/15	290,791	-	290,791
76628215	Common NERC Malware Scanning KIOSK	07/31/16	-	36,100	36,100

76628315	Common NERC Tripwire	12/30/15	86,519	-	86,519
76628415	Common NERC Add Vulnerability Module to SIEM	10/30/16	-	181,133	181,133
76628515	Common Connect CEM NETDAHS to PI Historian	07/30/16	-	90,329	90,329
76628634	Plant Common Foxboro Series 100 I/O and CP Replacement - Limestone	11/30/16	-	121,931	121,931
76630514	Common Laboratory Roof	12/30/14	90	-	90
76632413	San Juan Telecom Wiring	04/15/14	704	-	704
76716015	Unit 3&4 Cooling Tower Chemical Feed Controls	08/30/16	-	99,276	99,276
76716212	SJ U3&4 Tripper Deck Fire Protection	08/30/14	2,084	-	2,084
76716220	Units 3&4 Roof Refurbishment - 2014	12/15/15	110,795	-	110,795
76716314	U3&4 Sootblowing Air Compressor Mot	03/01/14	3,495	-	3,495
76716510	SJ U3&4 HVAC Upgrade	03/01/14	(5,161.75)	-	(5,162)
76717514	Units 3&4 Demineralizer Controls Replacement	12/31/14	36,115	-	36,115
76717523	SJ 5C Tripper Belt Replacement	11/30/14	61,586	-	61,586
76717913	Units 3&4 Auxiliary Cooling Tower Plenum Structure	12/31/14	270,047	-	270,047
77916032	Disconnect Switch Replacement	12/31/13	5,625	-	5,625
77916110	SJ Four Corners Relay Upgrade	12/01/14	38,169	-	38,169
77916136	Relays And Meters	12/31/16	-	145,184	145,184
77916332	Yard Lighting Improvements	03/18/14	373	-	373
77917723	SJ Switchyard Relays/Meters/Instrs-2013	10/01/14	106,630	-	106,630
77917824	SJ Switchyard Relays/Meters/Intrs-2014	12/31/14	89,127	-	89,127
77917925	SJ Switchyard Relays/Meters/Instrs-2015	12/02/15	150,147	-	150,147
	Total San Juan		**103,064,763**	**11,368,747**	**114,433,509**
	La Luz				
75218816	MW natural gas peaker 2016 COD	12/31/15	55,759,948	-	55,759,949
	Total Peaking Generation Station		**55,759,948**	**-**	**55,759,949**

	Delta/Rio Bravo				
04616014	Vertical Ladder Upgrade	11/30/14	201,574	-	201,574
04616015	DCS Upgrade for remote units	06/30/15	151,033	-	151,033
04616114	Arc flash For Delta	11/30/14	50,857	-	50,857
04616115	Mark VI e upgrade	10/30/15	505,459	-	505,459
04616214	NERC CIP	12/31/14	100,923	-	100,923
04616215	Rio Bravo Demineralized Water Unit	11/30/15	252,021	-	252,021
04616314	CEMs Cisco	12/31/14	200,132	-	200,132
04616414	Co2 Fire system Upgrade	11/30/14	19,979	-	19,979
04616514	Replace Batteries	11/30/14	40,186	-	40,186
04616614	Aux Transformer Install or Diesel Gen	12/31/14	201,148	-	201,148
04616714	Remote HMI for Reeves to Operate Delta	10/31/14	200,449	-	200,449
04616914	HVAC Installation	10/31/14	15,142	-	15,142
04621014	Delta Plant Purchase (6)	07/31/14	38,000,000	-	38,000,000
	Total Delta/Rio Bravo		**39,938,904**	**-**	**39,938,904**
	Bulk Power Building Allocation				
35730513	Aztec ADA Door	07/01/14	5,761	-	5,761
35730515	Aztec Security Equipment Upgrades	08/30/15	109,285	-	109,285
35730615	Aztec & Data Center Building Improvements	12/31/19	1,281,309	111,025	1,392,334
35731014	Aztec Chiller Replacement	09/30/14	300,908	-	300,908
35732012	Aztec Building Renovations	10/29/13	(545,225.92)	-	(545,226)
35732014	Aztec Bike Cage	09/25/14	4,028	-	4,028
35732414	Aztec Office Bldg Videoconferencing	08/29/14	12,399	-	12,399
	Total Bulk Power Building Allocation		**1,168,464**	**111,025**	**1,279,489**
	Solar Additions and Facilities				
75318513	Renewable solar generation 20MW 2013	12/31/13	274	-	274
75418014	23MW Renewable Project	03/01/15	45,812,103	-	45,812,103

75518015	Utility Scale Solar 40 MW	12/31/15	79,299,999	-	79,299,999
	Total Solar		**125,112,376**	**-**	**125,112,376**
	Grand Total Generation		**398,459,378**	**218,749,782**	**617,209,160**

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF NEW MEXICO FOR REVISION OF ITS RETAIL ELECTRIC RATES PURSUANT TO ADVICE NOTICE NO. 507	)	**Case No. 14-00332-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO, Applicant.	)	

AFFIDAVIT

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

CHRIS M. OLSON, Vice President, Generation for Public Service Company of New Mexico, upon being duly sworn according to law, under oath, deposes and states: I have read the foregoing **Direct Testimony and Exhibits of Chris M. Olson** and it is true and accurate based on my own personal knowledge and belief.

SIGNED this 8 day of December, 2014.

CHRIS M. OLSON

SUBSCRIBED AND SWORN to before me this 8th day of December, 2014.

NOTARY PUBLIC IN AND FOR
THE STATE OF NEW MEXICO

My Commission Expires:

September 14, 2018