

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. 533)

Case No. 16-00276-UT

PUBLIC SERVICE COMPANY OF NEW)
MEXICO,)

Applicant)

DIRECT TESTIMONY

OF

CHRIS M. OLSON

December 7, 2016

NMPRC CASE NO. 16-00276-UT
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WITNESS FOR
PUBLIC SERVICE COMPANY OF NEW MEXICO

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AFFIDAVIT

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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. I am responsible for the strategic direction and operation of PNM's generating resources to ensure that they continue to provide safe, reliable and cost-effective 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. 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. Likewise, I have executive oversight responsibility with respect to PNM's ownership interests in generation resources where PNM is not the operator, specifically, the Four Corners Power Plant ("Four Corners") and the Palo Verde Nuclear Generating Station ("Palo Verde").

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

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

5
6 **Q. HAVE YOU PREVIOUSLY TESTIFIED IN ADMINISTRATIVE**
7 **PROCEEDINGS?**

8 **A. Yes, I testified as a witness for PNM at the 2013 proceeding before the New**
9 **Mexico Environmental Improvement Board (“NMEIB”) where the revision to the**
10 **New Mexico Regional Haze State Implementation Plan (“Revised SIP”) was**
11 **adopted for purposes of New Mexico’s compliance with the U.S. Environmental**
12 **Protection Agency’s (“EPA”) Regional Haze Rule. I testified in New Mexico**
13 **Public Regulation Commission (“NMPRC” or “Commission”) Case No. 13-**
14 **00390-UT and Case No. 15-00261-UT. I submitted pre-filed testimony in**
15 **NMPRC Case No. 14-00332-UT, Case No. 15-00205-UT and Case No. 16-00105-UT.**

16
17 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

18 **A. I detail and support the generation-related cost elements of PNM’s revenue**
19 **requirements in this case. First, I discuss PNM’s capital investments in**
20 **generation facilities for the period from the end of the Base Period (June 30,**
21 **2016) through the end of the Test Period (December 31, 2018). This 30-month**

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1 period I refer to as the Capital Investment Period.¹ Second, I address the
2 necessary non-fuel operations and maintenance (“O&M”) expenditures relating to
3 PNM’s generation fleet utilized in developing the Base Period expenses.
4 Specifically, in the sections of my testimony that follow, I discuss:

- 5 • PNM’s generation resources and their role in PNM’s generation portfolio
6 as needed to serve customers;
- 7 • PNM’s generation capital budgeting processes, including how priorities
8 are established and how capital budgets are monitored and controlled;
- 9 • Major capital investments required for the safe, reliable and efficient
10 operation of PNM’s electric generating facilities while complying with all
11 federal and state regulations;
- 12 • The Selective Catalytic Reduction (“SCR”) capital project (“SCR
13 Project”) at Four Corners;
- 14 • The retirement of San Juan Units 2 and 3 and the impact of those
15 retirements on PNM’s O&M expenses;
- 16 • The implementation of the certificate of public convenience and necessity
17 (“CCN”) for 132 MW of San Juan Unit 4;
- 18 • The implementation of the CCN for 134 MW of Palo Verde Unit 3;
- 19 • The budgeting and oversight of generation O&M expenditures;
- 20 • The generation O&M expenditures included in the Base Period;

¹ The “Capital Investment Period” includes linkage data from July 1, 2016, through December 31, 2017, and continues through the Test Period ending December 31, 2018.

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- The appropriate Base Period adjustments for generation O&M expenditures; and
- Costs associated with power plant major planned maintenance outages.

II. SUMMARY OF KEY CONCLUSIONS

Q. WHAT ARE THE KEY CONCLUSIONS OF YOUR TESTIMONY?

A. I have 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 reasoned planning and vigilant cost controls. The Base Period O&M expenses represent necessary actual costs incurred by PNM to continue to safely and reliably operate PNM's generation facilities.
- PNM's scheduled plant maintenance is necessary for reliable, cost-effective operation. Because plant maintenance expenses vary considerably from year-to-year, historical O&M expenses incurred in a single year do not accurately represent the level of scheduled maintenance costs that will be incurred during the Test Period. Therefore, it is

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1 necessary to use a normalized approach to determine the appropriate
2 amount of scheduled maintenance cost to include in the Test Period.

3 • Adjustments are necessary to determine future O&M expenses as a result
4 of planned additions and retirements in PNM's generation resource
5 portfolio.

6 • It is reasonable and necessary to install SCR on Four Corners Units 4 and
7 5 so that this resource can continue to serve customers.

8
9 **III. OVERVIEW OF PNM'S GENERATION RESOURCES**

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

13 **A.** PNM's diverse mix of generation resources includes coal, nuclear, natural gas and
14 renewable resources. While PNM owns most of its generation capacity, either
15 outright or in participation with other owners, some of PNM's generation
16 resources are leased or are available through power purchase agreements
17 ("PPAs") where PNM has a contractual entitlement to the full output of the
18 facility. PNM's New Mexico jurisdictional generation resources that are
19 anticipated to be in-service on December 31, 2018, are listed in Table CMO-1.

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1

**Table CMO-1
PNM's Retail Generation Resources**

Ref.#	Generating Plant	Fuel Type	PNM Share (%)	PNM Share of Capacity (MW)	In-Service Date	Operating Agent
1	San Juan Units 1 & 4*	Coal	58.7 %	497	1976-1982	PNM
2	Four Corners Units 4 & 5	Coal	13.0%	200	1969-1970	APS
3	Palo Verde 1 & 2	Nuclear	10.2 % (Owned or Leased)	268	1985-1986	APS
4	Palo Verde 3	Nuclear	10.2% Owned	134	1988	APS
5	Afton	Natural Gas	100 %	230	2007	PNM
6	La Luz Energy Center	Natural Gas	100%	40	2015	PNM
7	Lordsburg	Natural Gas	100%	80	2002	PNM
8	Luna Energy Facility	Natural Gas	33.3%	185	2006	PNM
9	Reeves	Natural Gas	100%	154	1958-1962	PNM
10	Rio Bravo	Natural Gas	100%	138	2001	PNM in 2014
11	Valencia (PPA)	Natural Gas	N/A	145	2008	SWG Valencia Power LLC
12	Dale Burgett Geothermal (PPA)	Geothermal	N/A	8	2014	Cyrq Energy
13	New Mexico Wind Energy Center (PPA)	Wind	N/A	200	2003	FPL
14	Red Mesa Wind Energy Center (PPA)	Wind	N/A	102	2015	NextEra Energy

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15	44 MW Utility Scale Solar	Solar	100%	44	2011-2013	PNM
16	23 MW Utility Scale Solar	Solar	100%	23	2014	PNM
17	40 MW Utility Scale Solar	Solar	100%	40	2015	PNM
	TOTAL MW			2488		

*The 65 MW of non-retail San Juan Unit 4 is excluded from this table.

1

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

4 **A.** All of the facilities listed in Table CMO-1 currently serve PNM's customers with
5 the exception of Palo Verde Unit 3 and 132 MW of San Juan Unit 4. Both Palo
6 Verde Unit 3 and the 132 MW of San Juan Unit 4 will begin serving jurisdictional
7 customers on January 1, 2018, in accordance with the CCNs for these facilities
8 approved in NMPRC Case No. 13-00390-UT.

9

10 **Q. ARE ALL OF THE IN-SERVICE GENERATION RESOURCES LISTED**
11 **IN TABLE CMO-1 NECESSARY TO PROVIDE RELIABLE SERVICE TO**
12 **PNM'S CUSTOMERS?**

13 **A.** Yes. Though the utilization rates of these facilities vary through the year
14 depending on the type of resource, each of these resources is necessary and used
15 to provide service to customers.

16

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Q. DO THE IN-SERVICE GENERATION RESOURCES LISTED IN TABLE CMO-1 HAVE DIFFERENT ROLES IN PNM'S GENERATION FLEET?

A. Yes. Generating plants provide both energy and capacity. Energy and capacity are essential to meet customer demand and ensure the reliability of the electric grid. Most of the energy supplied to PNM customers is generated at the base load facilities. San Juan, Four Corners and Palo Verde are base load facilities and typically operate at close to full capacity all year. In addition, the Dale Burgett Geothermal resource compares favorably with the base load facilities due to its high capacity factor and stable output. Also, San Juan frequently provides essential reliability services such as load following, when gas-fired resources are not operating or cannot provided sufficient capacity. When Palo Verde Unit 3 becomes a retail resource, PNM customers will benefit from its low cost of operation as a base load resource.

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 ("Rio Bravo"), the La Luz Energy Center ("La Luz") and the Valencia Energy Facility ("Valencia"), are operated less frequently than base load plants when load and market conditions dictate, but also provide essential reliability services such as load-side generation when transmission constraints exist.

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1 The New Mexico Wind Energy Center (“NMWEC”), the Red Mesa Wind Energy
2 Center (“Red Mesa”), and the 44 MW, 40 MW and 23 MW of utility scale solar
3 generation are intermittent generation resources. The electricity from these
4 facilities must be used as it is generated.

5
6 **Q. PLEASE DESCRIBE THE DIFFERENCES AMONG THE FOUR BROAD**
7 **CLASSIFICATIONS OF POWER PLANTS.**

8 **A. Base Load Plants.**

9 I will start with base load plants which are the backbone of most electric grids.
10 Base load plants are typically large, have lower fuels costs and are inexpensive to
11 operate and maintain relative to the large amounts of electricity they produce.
12 Base load power plants operate throughout the year and at all times of the day.
13 They generally have no or limited ability to vary their output rapidly and their
14 primary characteristic and benefit is that they provide electricity at a very stable
15 rate. Base load plants are generally dispatched first because they are usually the
16 most cost-effective and are also generally always operating. Nuclear and coal
17 power plants are generally considered base load resources.

18
19 **Intermediate Plants.**

20 Intermediate plants – such as Afton and Luna - can be somewhat similar to base
21 load plants, but have some ability to vary their output which enables them to
22 follow load in response to demand. These plants facilitate the deployment of
23 intermittent renewable resources because of their ability to fill in when energy

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1 production from renewable resources is interrupted or curtailed. The operating
2 costs for intermediate plants generally slot in between base load plants on the low
3 end, and peaking plants on the high end. Intermediate plants are generally second
4 in line after base load for dispatch. These plants scale their output to match
5 demand to the extent practical.

6
7 **Peaking Plants.**

8 Peaking plants have the ability to vary the production of electricity very quickly
9 and on very short notice. These plants are very important for handling
10 unexpected surges in demand or expected peaks that are often experienced in
11 summer months. Peaking plants are generally more costly to operate compared to
12 base load and intermediate plants. For these reasons, they do not operate all the
13 time. Quick-start gas turbines are typically used as peaking plants. Peaking
14 plants are generally dispatched last and are needed to quickly react to changing
15 system conditions.

16
17 **Intermittent Resources.**

18 Intermittent resources generally include renewable resources such as wind and
19 solar. Intermittent renewable resources have the advantage of no fuel costs, but a
20 significant drawback is that these resources are not dispatchable and are subject to
21 constant variability. Generation from intermittent renewable resources is “must
22 take” and is utilized when available, subject to any system restrictions or
23 requirements.

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1 While I have described the four generally recognized types of generation plants,
2 an individual plant's operating characteristics can straddle some of these
3 classifications. For example, San Juan, although it is a base load plant, also has
4 some load following capabilities and is used to both follow demand and to
5 support the deployment of renewable resources.

6
7 **Q. DO THE VARIOUS TYPES OF RESOURCES IN PNM'S GENERATION**
8 **PORTFOLIO SERVE DIFFERENT FUNCTIONS TO SERVE**
9 **CUSTOMER NEEDS AND ENSURE SYSTEM RELIABILITY?**

10 **A.** Yes. Customer demands vary continuously, so utility generation portfolios need
11 to be designed to cost-effectively meet these demands while ensuring grid
12 reliability. Different types of power plants employ different technologies that
13 have inherently different characteristics. These different types of plants, when
14 combined in a portfolio are best suited to economically meet customers' demands
15 while ensuring the reliability of the electric grid.

16
17 **Q. HOW DO THE DIFFERENT CHARACTERISTICS OF THESE**
18 **GENERATION RESOURCE TYPES ENSURE ELECTRIC GRID**
19 **RELIABILITY?**

20 **A.** Stability of the electrical system grid is essential. The electricity supplied must
21 match the level of demand at all times and within strict operating limits measured
22 in frequency and voltage. Large deviations between supply and demand can
23 result in system reliability issues. In addition, maintaining the stability of the

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1 system grid is not simply a matter of maintaining sufficient capacity in excess of
2 peak demand. Rather, a portfolio that can quickly vary the amount of supply to
3 match constantly fluctuating levels of demand at all times is required. PNM's
4 generation portfolio is structured to meet these changing demands.

5
6 **Q. HOW IS ENERGY DELIVERED TO PNM'S CUSTOMERS FROM**
7 **GENERATING FACILITIES?**

8 **A.** Energy is delivered from PNM's generation resources to customers via PNM's
9 transmission and distribution systems as described by PNM Witness Mechenbier.

10
11 **Q. WILL THERE BE ANY CHANGES TO PNM'S GENERATION**
12 **RESOURCES THAT SUPPLY PNM'S JURISDICTIONAL CUSTOMERS**
13 **BY THE END OF THE TEST PERIOD?**

14 **A.** Yes. In NMPRC Case No. 13-00390-UT, PNM received CCN's for an additional
15 132 MW of San Juan Unit 4 as well as 134 MW of Palo Verde Unit 3 which
16 represents PNM's 10.2% interest in that unit. In the same case, PNM also
17 received approval for the retirement of San Juan Units 2 and 3 at the end of 2017.

18
19 **Q. PLEASE PROVIDE ADDITIONAL INFORMATION ON THE PALO**
20 **VERDE UNIT 3 RESOURCE.**

21 **A.** The 134 MW interest in Palo Verde Unit 3 is an existing PNM-owned resource
22 that will become a jurisdictional generation resource in 2018. Palo Verde Unit 3
23 will provide necessary base load capacity for PNM's customers to help offset the

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1 loss of base load capacity due to the retirement of San Juan Units 2 and 3. Palo
2 Verde Unit 3 has proven to be a very reliable, cost-effective generation resource
3 with a five year average Equivalent Availability Factor ("EAF") of 90.8%. As
4 described in PNM Witness Monroy's testimony, the 134 MW of Palo Verde Unit
5 3 is included in the cost of service at a net book value of \$1,101/kW as of
6 December 31, 2017. The value for Palo Verde Unit 3 for ratemaking purposes
7 was approved by the Commission in NMPRC Case No. 13-00390-UT.

8
9 **Q. PLEASE PROVIDE ADDITIONAL INFORMATION ON THE SAN JUAN**
10 **UNIT 4 RESOURCE.**

11 **A.** San Juan Unit 4 is the newest San Juan unit and has the highest net capacity of all
12 of the San Juan units. It has provided reliable and cost-effective energy to PNM
13 customers for almost three decades. Unit 4 has been a solid performing unit with
14 an average EAF of 80.29% for the past five years. San Juan provides necessary
15 base load generation to help ensure a reliable supply of energy. The addition of
16 the 132 MW from Unit 4 was approved by the NMPRC as part of the needed
17 replacement for the retired capacity from San Juan Units 2 and 3 and will help
18 assure continued necessary base load and load following supply for PNM's
19 customers. As described in PNM Witness Monroy's testimony, the 132 MW of
20 San Juan Unit 4 is included in the cost of service at a net book value of \$12.5
21 million as of December 31, 2017.

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1 The San Juan Unit 4 net book value includes only capital improvements
2 beginning January 1, 2015. The Final Order in NMPRC Case No. 13-00390-UT
3 authorized PNM to add to the initial zero net book value of this resource the cost
4 of reasonable and necessary investments in Unit 4, including costs for the
5 Selective Non-Catalytic Reduction (“SNCR”) project which is required under the
6 Revised SIP. These costs do not include the capital costs for the balanced draft
7 conversion of Unit 4.

8
9 **Q. HAVE THE SAN JUAN OWNERS CHANGED THEIR PARTICIPATION**
10 **SHARES TO REFLECT THE NEW OWNERSHIP STRUCTURE**
11 **BEGINNING IN JANUARY 2018?**

12 **A.** Yes. The San Juan owners have agreed to a restructured ownership to facilitate
13 the retirement of San Juan Units 2 and 3 and PNM’s additional 132 MW interest
14 in San Juan Unit 4. PNM Witness Monroy shows the adjustments that were made
15 in his cost of service model to reflect the changes in PNM’s percentage of New
16 Mexico jurisdictional ownership of San Juan.

17
18 **Q. IS PNM INCLUDING COSTS FOR THE 65 MW OF SAN JUAN UNIT 4**
19 **MERCHANT CAPACITY IN THIS RATE REQUEST?**

20 **A.** No. Under the Modified Stipulation approved under the Final Order in NMPRC
21 Case No. 13-00390-UT, PNM will acquire the 65 MW as merchant plant and this
22 capacity is excluded from PNM retail rates.

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IV. PNM'S GENERATION CAPITAL INVESTMENT PROCESS

**Q. HOW DOES PNM SELECT CAPITAL PROJECTS FOR ITS
GENERATION FACILITIES?**

A. There are two processes for capital budgeting for generation facilities. First, there is the process PNM uses for the generation facilities that PNM wholly owns or for which PNM has partial ownership and serves as the operating agent. Second, PNM participates in a similar capital budgeting 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 CAPITAL BUDGET PROCESS USED FOR
GENERATION FACILITIES THAT PNM OWNS OR PARTIALLY OWNS
AND OPERATES.**

A. The budget process for generation facilities that PNM owns, or partially owns and operates, begins by plant staff identifying potential projects that are considered essential to meet applicable regulatory compliance requirements and for safe and reliable operations. As explained by PNM Witness Monroy, PNM Generation is provided annual capital allowances for a five-year period as a guide for budgeting. PNM develops cost estimates for each respective needed capital project. The estimating process involves internal and external technical experts - engineers, manufacturers and other outside experts - who define the project scope

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1 and develop the cost estimates using the best available information for each
2 potential project.

3
4 Next, the costs of all of the potential capital projects are totaled and compared to
5 the annual generation capital allowance. There are typically more capital needs
6 than there are available capital funds so PNM must prioritize its capital spending.
7 Generation leadership prioritizes the capital projects in the portfolio around
8 aspects essential to meet applicable regulatory compliance requirements and for
9 safe and reliable operations. Only the highest priority capital projects are selected
10 to be pursued. The total costs for the final generation portfolio are balanced to
11 match or be slightly below the annual capital allowance. Finally, senior
12 management reviews and approves the proposed generation budget and portfolio
13 of capital projects.

14
15 As the capital projects are executed through the year, management tracks the
16 spending on the projects to the original capital plan at both the plant level and
17 overall generation portfolio budget. Project managers are held accountable to
18 meet their project cost and delivery goals. Cost overages in any one project must
19 be offset by cost underages in different projects. Accuracy in both forecasting
20 and execution are required to allow each plant to meet its respective budget along
21 with the overall generation portfolio budget.

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1 In the case of the budgets for San Juan and Luna, where PNM acts as operating
2 agent, PNM presents the proposed capital budgets to the respective owners at
3 these two facilities for review and final approval. Throughout this process, PNM
4 strives to balance the cost of each project with the benefit to customers that will
5 be derived from the project.

6
7 **Q. CAN YOU DESCRIBE HOW THE CAPITAL PROJECT COST**
8 **ESTIMATING PROCESS WORKS?**

9 **A.** Depending on the complexity of the project, PNM obtains data from a variety of
10 sources to develop cost estimates for generation projects. Initially, PNM's Project
11 Engineering staff develops preliminary cost estimates based on information from
12 recent similar projects, equipment suppliers, construction contractors and industry
13 information.

14
15 As the project is further refined, PNM often relies on a competitive bid process to
16 finalize cost estimates for capital projects. The Project Engineering staff assesses
17 the bids and selects the most qualified vendor or contractor to perform the work.
18 PNM reviews the bid in totality (cost, quality, schedule) when selecting the
19 winning bid and placing the contract.

20
21 Depending on the size and complexity of the project, estimating may also be
22 performed by an outside firm engaged to engineer the project. For large or
23 complex projects, estimating may be performed by an outside firm engaged in the

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1 role of "Owner's Engineer." This is an industry standard practice. The firm
2 engaged as the Owner's Engineer is a firm with proven experience in designing
3 and executing projects of the scope and technology being considered.

4
5 For large or complex projects, one of the critical decisions is the contracting
6 strategy. The contracting strategy influences the estimating strategy for the
7 continuing development of the project. For example, if the contracting strategy is
8 to use an Engineer, Procure, Construct ("EPC") contract, the next refinement of
9 the project cost estimate will likely be based on proposals from the EPC bidders.
10 Depending on the structure of the request for proposals, either a single proposal
11 may be selected for an EPC contract or separate parties may be selected for
12 engineering, equipment, supply and construction.

13
14 Assuming the project is authorized based on cost estimates produced in the
15 preceding steps, a periodic restatement of the cost estimate is made as the project
16 develops. Estimated values for equipment and construction services are replaced
17 with amounts quoted by firms competing for each specific contract. For large
18 projects that require multiple years to execute, the periodic restatement of the cost
19 estimate is necessary to establish accurate annual forecasts.

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1 **Q. WHAT ARE THE COMMON TYPES OF COSTS THAT GO INTO**
2 **PROJECT COST ESTIMATES?**

3 **A.** The FERC cost types used in PNM budgeting are identified in the testimony of
4 PNM Witness Monroy, specifically PNM Exhibit HEM-8. Some of the common
5 cost types used for budgeting generation capital projects include:

6
7 110 and 120 Internal labor: This includes all labor performed by PNM employees
8 from permitting through to project commissioning. As mentioned above, an
9 assumption is made during the estimating process as to who will perform the
10 work (internal or external). As the project gets closer in time, this assumption is
11 reviewed based on current staff availability.

12
13 350 and 359 Materials and Equipment: This cost type includes all minor
14 materials and equipment which are typically purchased as a stock item from a
15 vendor or material provider. It includes items that PNM or its materials provider
16 routinely stock or can acquire quickly. Examples include pipe, fittings, electrical
17 cable, fasteners, valves, bearings, etc.

18
19 370 Outside Services: This cost type includes all outside professional services as
20 well as construction services. Professional services may include environmental
21 compliance and testing, engineering support, etc. This cost type also includes the
22 purchase of specialty engineered equipment or site specific items such as motors,
23 pumps, control systems, fans, compressors, conveyor belts and instrumentation.

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

3 **A.** PNM actively manages its capital projects to ensure that the projects are
4 completed at the lowest reasonable cost and within budget. As I described
5 previously, each project is subject to a thorough scoping and design review
6 process. PNM utilizes its Procurement Team to review market information while
7 competitively sourcing material and/or services to achieve the lowest reasonable
8 cost and best value for customers. PNM utilizes a proactive process of reviews,
9 cost controls, and communication to drive project and site level accountability.

10

11 **Q. DESCRIBE THE PROCESS THAT PNM GENERATION USES TO**
12 **MONITOR EXPENDITURES UNDER ITS CAPITAL BUDGET.**

13 **A.** PNM's Generation group reviews the status of the capital budget during monthly
14 meetings between the plant directors and the department managers at each
15 facility. Additionally, management reviews are held among the Vice President of
16 Generation, the Plant Directors, and the Director of Generation Construction
17 Project Management on a monthly basis. Luna and San Juan have additional
18 budget reviews on a monthly basis among the members of each facility's
19 respective ownership groups. The goals of these reviews are to monitor the
20 investments at each plant and make sure that expenditures are reasonable,
21 necessary and within the budgeted amount.

22

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1 **Q. IS FLEXIBILITY SOMETIMES REQUIRED WITH RESPECT TO THE**
2 **IMPLEMENTATION OF PROJECTS?**

3 **A.** Flexibility in the specific projects to be completed is necessary to ensure the
4 management of unforeseen events and necessary unbudgeted expenses that can
5 arise during the year. For instance, equipment may fail, diverting the resources of
6 the engineering and project management staff from on-going projects as well as
7 requiring unbudgeted expenditures to ensure the supply of power to customers is
8 not jeopardized. Projects and associated expenditures therefore cannot always be
9 completed in the timeframe originally forecasted. A process is in place for
10 managing mid-year changes, or “trade-offs” to ensure the funding of necessary,
11 but unbudgeted, capital expenditures while not exceeding the approved capital
12 allowance. The process requires documentation of the need for the new
13 expenditure, the identification of a budgeted project expenditure that will be
14 reduced to accommodate the new expenditure, and proper approvals. As a result
15 of this process, some projects may be delayed while others are accelerated, but the
16 total amount of capital invested during the budget period will not typically change
17 by a significant amount.

18
19 **Q. PLEASE DESCRIBE THE CAPITAL BUDGET PROCESS USED FOR**
20 **FOUR CORNERS AND PALO VERDE WHERE PNM IS NOT THE**
21 **PLANT OPERATOR.**

22 **A.** Arizona Public Service Company (“APS”) is the operating agent for both Four
23 Corners and Palo Verde. Very much like PNM, APS follows a rigorous process

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1 to determine project prioritization, cost estimates and funding levels. APS
2 presents the capital plans for Palo Verde and Four Corners to the respective
3 ownership groups for each plant. The ownership groups are comprised of a
4 voting member from each owner in that plant. The owners scrutinize APS's
5 plans, seek information and provide input on the proposed budgets. The final
6 annual capital budgets are then put to a vote of each facility's owners.

7
8 **Q. WHAT IS THE PROCESS FOR MONITORING CAPITAL**
9 **EXPENDITURES AT FOUR CORNERS AND PALO VERDE?**

10 **A.** As explained in the O&M section of my testimony, budget reviews are held on a
11 regular basis. The goals of these reviews are to monitor the expenditures of each
12 plant and make sure that expenditures are reasonable, necessary and within the
13 expected amounts. Unforeseen circumstances can result in scope changes that can
14 cause cost variances and lead to changes to work schedules. Appropriate efforts
15 are made to help ensure that the project costs remain on target and within the
16 overall budget.

17
18 **Q. HOW IS BUDGETING HANDLED WITH RESPECT TO FACILITIES**
19 **THAT PROVIDE POWER TO PNM PURSUANT TO A PPA?**

20 **A.** Because PNM does not own or operate any of the facilities covered by PPAs and
21 only purchases power from these facilities, PNM is not involved in their
22 budgeting process.

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V. PNM'S GENERATION CAPITAL INVESTMENTS

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

A. I discuss PNM's capital investment plan for generation facilities during the Capital Investment Period and summarize the benefits of, and justification for, 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 Capital Investment Period.

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

A. PNM's total Generation capital investments during the Capital Investment Period are \$300.7 million. Table CMO-2 represents the total of PNM's Generation capital expenditures for the Capital Investment Period from July 1, 2016, through December 31, 2018. This capital total includes total project costs for San Juan Unit 4 including the costs allocated to the 65 MW of merchant capacity; however, the 65 MW capital costs are excluded from the cost of service request. The jurisdictional allocations of capital expenditures are discussed by PNM Witness Monroy.

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**Table CMO-2
Capital Costs for Generation Resources per Site
For the Capital Clearing Period by Tier²**

Site	Tier 1	Tier 2	Tier 3	Total
San Juan	\$ 28,934,201	\$ 15,379,329	\$ 2,025,632	\$ 46,339,162
Four Corners	\$ 148,132,877	\$ 577,609	\$ -	\$ 148,710,487
Palo Verde	\$ 83,499,616	\$ -	\$ -	\$ 83,499,616
Afton	\$ 7,597,022	\$ 1,116,280	\$ -	\$ 8,713,302
Luna	\$ 7,866,903	\$ 434,570	\$ 51,891	\$ 8,353,364
Rio Bravo	\$ -	\$ 1,530,725	\$ 92,559	\$ 1,623,284
Reeves	\$ -	\$ 626,440	\$ 513,797	\$ 1,140,237
La Luz	\$ -	\$ 856,311	\$ 141,672	\$ 997,983
Lordsburg	\$ -	\$ 613,011	\$ -	\$ 613,011
Generation HQ - Aztec	\$ -	\$ 709,383	\$ (6,414)	\$ 702,969
Renewables	\$ -	\$ -	\$ 7,383	\$ 7,383
Totals By Tier	\$ 276,030,619	\$ 21,843,658	\$ 2,826,521	\$ 300,700,797
Percentage By Tier	92%	7%	1%	100%

Q. CAN YOU DESCRIBE THE CAPITAL PROJECTS CONTAINED IN THIS RATE CASE REQUEST?

A. Yes, please see PNM Exhibit CMO-2 for a summary listing and the detailed information of each of the Generation Tier 1 capital projects organized by each Generation site. PNM Exhibit CMO-3 is a summary listing and the detailed information of all the Generation Tier 2 capital projects organized by Generation site. PNM Exhibit CMO-4 is a summary listing and the detailed information of all the Generation Tier 3 capital projects organized by each Generation site. These exhibits list each capital project with an identification number, the associated Linkage and Test Period cost, the total project cost for each project tier and the fully supported details of each project. These exhibits are filed in

² Tiers represent capital projects categorized by dollar value for the Capital Investment Period. Tier 1 generation projects include those capital projects whose Capital Investment Period value is equal to or greater than \$750,000. Tier 2 generation projects include those capital projects for which the Capital Investment Period value is between \$100,000 and \$750,000. Tier 3 generation projects include those capital projects for which the Capital Investment Period value is less than or equal to \$100,000. Each generation site has its capital projects and costs segregated into these three Tiers.

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1 hardcopy within this testimony and electronically. Detailed project information
2 including project justifications, estimated completion dates, alternatives reviewed
3 and budget figures by cost type are hyperlinked from the project identification
4 numbers in the electronic versions of PNM Exhibit CMO-2 through PNM Exhibit
5 CMO-4.

6
7 As discussed by Mr. Monroy, PNM has utilized a three-tier system to categorize
8 the amount of detail required to describe each capital project. For Generation,
9 there are a total of 179 projects of which thirty-one are Tier 1 projects
10 representing 92% of the capital clearings costs during the Capital Investment
11 Period. There are seventy-eight Tier 2 projects representing 7% of the capital
12 clearings costs. Finally, there are seventy Tier 3 projects representing less than
13 1% of the capital clearings costs.

14
15 **Q. CAN YOU ADDRESS SOME OF THE MORE SIGNIFICANT CAPITAL**
16 **PROJECTS THAT ARE INCLUDED IN PNM'S REVENUE**
17 **REQUIREMENTS IN THIS CASE?**

18 **A.** Yes. I would like to highlight the more significant, i.e., Tier 1 capital projects, to
19 be undertaken during the Capital Investment Period. The described Tier 1
20 projects relate to five of PNM's generation facilities, specifically San Juan, Palo
21 Verde, Four Corners, Afton, and Luna. Each of these facilities is addressed
22 separately below.

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1 **A.** *San Juan Generating Station*

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

4 **A.** San Juan is a low-cost, coal-fired power plant that PNM depends on as a base load
5 resource and for load following. It presently consists of four units and is located
6 near Waterflow, New Mexico. San Juan currently produces approximately forty-
7 three percent of the energy used annually to supply PNM's customers' electricity
8 needs. Even with the planned retirement of San Juan Units 2 and 3 at the end of
9 2017, San Juan will continue to be an important base load generation resource for
10 PNM's customers by providing an estimated thirty percent of their energy needs.
11 The plant has been in operation for over forty years and is subject to the normal
12 wear and tear that is associated with a base load plant that is also used for system
13 regulation necessary to utilize renewable generation resources and to meet NERC
14 requirements. To maintain needed reliability for the remaining period of use for
15 Units 2 and 3 and the longer term use of Units 1 and 4, PNM must replace worn
16 or failed system components. PNM minimizes the cost impact for upkeep of San
17 Juan by scheduling maintenance using a planned maintenance cycle.

18
19 **Q.** **WHAT IS THE PURPOSE OF THE CAPITAL PROJECTS THAT WILL**
20 **BE IMPLEMENTED AT SAN JUAN DURING THE CAPITAL**
21 **INVESTMENT PERIOD?**

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1 **A.** There are sixteen Tier 1, fifty-seven Tier 2, and forty-nine Tier 3 capital projects
2 at San Juan. These projects are listed and detailed descriptions are presented in
3 PNM Exhibit CMO-2 through PNM Exhibit CMO-4. In general, these projects
4 target reliability, safety and regulatory compliance, opportunities to improve plant
5 productivity, or reconfiguring the station's common (shared) systems to support a
6 two-unit operation in 2018 after the shutdown of Unit 2 and Unit 3. The Tier 1
7 projects are discussed in greater detail below.

8
9 **Q. DOES TABLE CMO-2 CONTAIN ANY CAPITAL EXPENDITURES**
10 **RELATED TO BALANCED DRAFT TECHNOLOGY?**

11 **A.** Yes. There are three Tier 2 capital projects related to balanced draft technology
12 included in Table CMO-2. These projects are:

- 13 1. SJGS SNCR costs PNM Share Co 3 (ID#77021913)
- 14 2. Unit 1 SNCR Co 3 (ID# 76121912)
- 15 3. SJ U4 SNCR Co 3 (ID# 76421912)

16
17 However, these capital costs have been excluded from the cost of service pursuant
18 to the Final Order in NMPRC Case No. 15-00261-UT and PNM is not seeking
19 recovery of these costs in this case. Please see the testimony of PNM Witness
20 Monroy for additional detail on excluded costs.

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1 **Q. WHAT ARE THE SIGNIFICANT CAPITAL PROJECTS THAT WILL BE**
2 **IMPLEMENTED ON SAN JUAN UNIT 1 DURING THE CAPITAL**
3 **INVESTMENT PERIOD?**

4 **A.** There are two Tier 1 capital projects for Unit 1 during the capital investment
5 period.

6 The first Tier 1 capital project targets the reliability of Unit 1 and is:

7 1. Unit 1 Boiler Outage 2018 (ID# 76116419)

8

9 The project “Unit 1 Boiler Outage 2018 (ID# 76116419)” addresses causes for
10 boiler forced outages and replacement of normal wear components. The scope of
11 the project includes tube replacement and alignment, expansion joint replacement,
12 coal piping and burner component replacement, and installation of observation
13 doors. The estimated cost for this work is \$0.8 million. Completion of this
14 capital project will maintain or improve Unit 1 reliability.

15

16 A second Tier 1 capital project targets Unit 1 emissions controls for
17 environmental compliance and is:

18 2. Unit 1 Absorber Double Head Spray Nozzle & Tray Upgrade (ID#
19 76116130)

20

21 The Unit 1 scrubbers have been processing coal with increased levels of sulfur
22 content pushing the system to its performance limits for SO₂ emissions. This
23 project will improve the performance of the scrubbers by installing additional

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1 double spray nozzles to replace the current single nozzle design. This will allow
2 for a greater slurry-to-gas reaction yielding an increased removal efficiency of
3 SO₂. The estimated cost for this work is \$0.8 million. Completion of this capital
4 project will help maintain Unit 1's SO₂ compliance.

5
6 **Q. WHAT ARE PNM'S PLANS FOR CAPITAL INVESTMENT IN SAN**
7 **JUAN UNITS 2 AND 3 DURING THE CAPITAL INVESTMENT PERIOD?**

8 **A.** Because of their eventual retirement at the end of 2017, the San Juan owners will
9 not make capital investments in Units 2 and 3 beyond what is reasonably
10 necessary to keep them in operation through 2017. There are no capital projects
11 planned for San Juan Unit 2 or San Juan Unit 3 during the Capital Investment
12 Period, however, there were some emergent capital projects in the Capital
13 Investment period for necessary replacement and/or repairs.

14
15 **Q. WHAT ARE THE SIGNIFICANT CAPITAL PROJECTS THAT WILL BE**
16 **IMPLEMENTED ON UNIT 4 DURING THE CAPITAL INVESTMENT**
17 **PERIOD?**

18 **A.** There are a total of four Tier 1 capital projects for Unit 4 during the Capital
19 Investment Period. Two of the Tier 1 capital projects for Unit 4 target
20 maintaining required emissions compliance, one targets reliability, and the forth
21 targets both safety and reliability. These projects are:

- 22 1. Unit 4 Absorber Double Head Spray Nozzle & Tray Upgrade (ID#
23 76416817)

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1 2. Unit 4 Baghouse Bag Replacement (ID# 76416116)

2 3. Unit 4 Boiler Outage 2018 (ID# 76416218)

3 4. Unit 4 Dewatering Bin (ID# 76416216)

4
5 Similar to the Unit 1 scrubbers discussed above, Unit 4 scrubbers have been
6 processing coal with an increased level of sulfur content, pushing the system to its
7 performance limits for SO₂ emissions. The scope of work for the “Unit 4
8 Absorber Double Head Spray Nozzle & Tray Upgrade (ID# 76416817)” is similar
9 to the Unit 1 capital project (ID# 76116130) described above. However, Unit 4 is
10 larger requiring more spray nozzles and contact surfaces. This translates into a
11 higher capital cost for the project. The estimated cost for this work is \$1.1
12 million. Completion of this capital project will help maintain SO₂ compliance for
13 Unit 4.

14
15 For the capital project “Baghouse Bag Replacement (ID# 76416116)”, the baghouse
16 bags are used to remove particulates created via the combustion process and are required
17 for compliance with San Juan’s air permits and applicable air quality requirements.
18 Over time, the bags in the baghouses experience wear and tear due to use. The standard
19 life is four to six years based on operation and ash loading; those on Unit 4 are near the
20 end of their useful life as they were installed in 2010. This project will replace the bags
21 used in the baghouse of Unit 4. The estimated cost for this work is \$1.6 million.

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1 The scope of capital project “Unit 4 Boiler Outage 2018” (ID# 76416218) is similar
2 to the work as being performed on Unit 1. The project addresses causes for boiler
3 forced outages and replacement of normal wear components. The scope includes
4 replacement of “normal” wear components, replacement of components to improve
5 boiler serviceability, reduce erosion, promote inspection capability, and boiler tube
6 replacements to maintain pressure vessel code requirements. Components to be
7 replaced include but are not limited to: expansion joints, burner assemblies, boiler tubes,
8 and fuel transport components. The estimated cost for this project is \$1.3 million.
9 Completion of this capital project will maintain or improve Unit 4 reliability.

10
11 For the capital project “Unit 4 Dewatering Bin (ID# 76416216)”, these bins are
12 used to remove the water from the wet bottom ash from the boilers. Metal in
13 various sections of the Unit 4 ash bins have worn thin or worn through. This
14 project will rebuild the two ash handling bins and replace worn structural areas at
15 an estimated cost of \$1.4 million. Completion of this capital project will help
16 maintain a safe work environment at San Juan and ensure continued reliable operation
17 of Unit 4.

18
19 **Q. WHAT ARE THE SIGNIFICANT CAPITAL PROJECTS THAT WILL BE**
20 **IMPLEMENTED ON THE SAN JUAN COMMON EQUIPMENT AND**
21 **FACILITIES DURING THE CAPITAL INVESTMENT PERIOD?**

22 **A.**There are a total of ten Tier 1 capital projects for the common equipment and
23 facilities during the Capital Investment Period. Of the ten Tier 1 capital projects,

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1 four target reliability, three target regulatory compliance, and three are required to
2 reconfigure the station for a two-unit operation in 2018.

3
4 The four Tier 1 capital projects targeting reliability are:

- 5 1. San Juan Common Lake Station Switchgear (ID# 76616416)
- 6 2. San Juan Common Lake Station Switchgear (ID# 76617109)
- 7 3. San Juan Common C&D Coal Reclaim System (ID# 76617317)
- 8 4. San Juan Emergent Capitalization Projects (ID# 70016108)

9
10 The Tier 1 capital projects “San Juan Common Lake Station Switchgear (ID#
11 76616416)” and San Juan Common Lake Station Switchgear (ID# 76617109),
12 will replace obsolete electrical equipment used to pump water from the plant
13 reservoir to the plant. The existing equipment is over fifty years old and while
14 there is redundancy in both the pumps and the electrical gear, the system is
15 designed in a manner that does not permit maintenance on the electrical
16 equipment without a complete system shutdown. Due to this and limited
17 opportunities to take the system out of service, maintenance on the electrical
18 equipment has been minimal. These projects will redesign the electrical system
19 such that it will comply with current codes and can be segregated for maintenance
20 without reducing the reliability of the water supply system, at an estimated cost of
21 \$2.2 million. Completion of these capital projects will help the plant maintain its
22 reliability levels.
23

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1 The Tier 1 capital project “San Juan Common C&D Coal Reclaim System (ID#
2 76617317”), will improve the reliability of the coal reclaim system. The coal
3 reclaim is a system of equipment that is used to move coal from the coal yard to
4 the main plant coal conveyor. This system is made up of underground tunnels
5 equipped with conveyors that move the coal from under the coal pile and feed it
6 onto the main plant conveyor system where other processing of the coal takes
7 place. To prevent reliability and other issues related to dust control, this project
8 will make repairs to the coal system at an estimated cost of \$2.2 million.
9 Completion of this capital project will help maintain overall plant performance.

10
11 For the Tier 1 capital project “San Juan Emergent Projects (ID# 70016108)”, the
12 emergent work project will be used to maintain the plant’s reliability, safety and
13 compliance by handling unforeseen capital maintenance issues. This capital
14 project supports all of the units and the common equipment and facilities at an
15 estimated cost of \$1.9 million. Completion of the work will maintain or improve
16 overall plant performance.

17
18 Next, there are three Tier 1 capital projects that target the overall plant’s legal,
19 environmental and security compliance. These projects are:

- 20 1. San Juan Common Shumway Arroyo Slurry Wall and Water Containment
21 (ID# 76617332)
- 22 2. San Juan Common North Side Evaporation Pond Remediation (ID#
23 76616516)

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1 3. Generation Building Improvements (ID# 35730615)

2
3 The Tier 1 capital project “San Juan Common Shumway Arroyo Slurry Wall and
4 Water Containment (ID# 76617332)” is a required project stemming from the
5 Sierra Club Consent Decree (U.S.D.C. Case No. 10-cv-00332-MCA-LAM). The
6 estimated capital cost for this work is \$4.2 million.

7
8 The Tier 1 capital project “San Juan Common North Side Evaporation Pond
9 Remediation (ID# 76616516)” is the closure of the two remaining North side
10 evaporation ponds (ponds N2 and N3). The two ponds are full and have been taken out
11 of service. The project involves drying the ponds, capping the ponds with clay, and
12 covering the capped ponds with top soil and other erosion protection mechanisms (e.g.,
13 vegetation) per the regulatory closure requirements. The estimated capital cost for this
14 work is \$1.2 million.

15
16 The Tier 1 capital project “Generation Building Improvements (ID# 35730615)” is to
17 maintain and improve security at San Juan. This project will be used to install a
18 mechanized gate that requires badge access. Installation will require modification to the
19 entrance of the plant to include bollards, card readers, call boxes, and trenching for
20 power and network connectivity. Additional barriers are needed inside the plant to
21 restrict access to the road leading to our substations. Finally, there are currently several
22 areas of fence line needing repair and/or replacement and additional fencing is needed to
23 address gaps in the security perimeter. The estimated capital cost for the security

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1 improvements is \$0.8 million. Completion of this capital project will help maintain the
2 physical security of the plant.

3
4 Finally, there are three Tier 1 projects targeting the reconfiguration of the
5 common plant for two-unit operation in 2018. These three projects are:

- 6 1. San Juan Common System Support - Retirements (ID# 76616418)
- 7 2. San Juan Common Reconfiguration Engineering (ID# 76617016)
- 8 3. San Juan Common Auxiliary Boiler (ID# 76616917)

9
10 The capital project “San Juan Common System Support - Retirements (ID#
11 76616418)”, will complete the retirement process for Units 2 and 3. The scope of
12 this project is focused on minimal activities to ensure all environmental risks are
13 minimized, electrical equipment is safely isolated, and fuel handling systems are
14 isolated to Units 2 and 3. The estimated capital cost for this project is \$1.7
15 million.

16
17 The capital project “San Juan Common Reconfiguration Engineering
18 (ID#76617016)” will address several reconfiguration projects needed to operate
19 Units 1 and 4 after the closure of Units 2 and 3. Key work will be the installation
20 of critical steam, electrical, and water cross ties. Additionally, an evaluation will
21 be done of possibly consolidating key processes including soot blowing air and
22 demineralized water. This project is estimated to cost \$1.1 million and will help
23 assure the operation of Units 1 and 4 after 2017.

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1 With Units 2 and 3 retiring, the risk of freezing of critical equipment for Units 1
2 and 4 will be significant. The capital project “San Juan Common Auxiliary Boiler
3 (ID# 76616917)” will install the facilities required to accept a rental auxiliary
4 boiler to manage building heating and process steam for both Units 1 and 4 after
5 2017. The facilities include foundation, exhaust stack, water and steam
6 connections, electrical connections and other interfaces required for the rental
7 boiler. This project is estimated to cost \$6.8 million and is necessary for the
8 continued operation of Units 1 and 4 after 2017.

9
10 The estimated capital cost for all of the San Juan Capital projects during the Capital
11 Investment Period is \$46.3 million. A more detailed description of the San Juan Tier 1
12 capital projects along with additional Tier 2 and Tier 3 projects can be found in PNM
13 Exhibit CMO-2, PNM Exhibit CMO-3 and PNM Exhibit CMO-4.

14
15 ***B. Palo Verde Nuclear Generating Station***

16 **Q. PLEASE PROVIDE ADDITIONAL INFORMATION ABOUT PALO**
17 **VERDE AND ITS ROLE IN PNM’S GENERATION RESOURCE**
18 **PORTFOLIO.**

19 **A.** APS operates Palo Verde which is located west of Phoenix, Arizona, and is the
20 nation’s largest nuclear generating station. The three units at Palo Verde came on
21 line between 1986 and 1988 and have operating licenses that extend to 2046 and
22 2047. PNM owns or leases 10.2% of each of the units at Palo Verde. Previously,

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1 only Unit 1 and Unit 2 had CCNs to serve PNM's New Mexico jurisdictional
2 customers. Palo Verde Unit 3 is a resource that was previously excluded from
3 PNM's jurisdictional generating resources, but PNM received a CCN for its 134
4 MW interest in Palo Verde Unit 3 in NMPRC Case No. 13-00390-UT. The CCN
5 effective date is January 1, 2018. The total net book value of the 134 MW interest
6 in Palo Verde Unit 3 will be \$1,101/kW as of December 31, 2017. Palo Verde is
7 an existing, reliable source of base load capacity and energy and needed to
8 reliably serve customers.

9
10 **Q. WHAT ARE SOME OF THE SIGNIFICANT CAPITAL PROJECTS THAT**
11 **THE PALO VERDE OWNERS PLAN TO MAKE DURING THE CAPITAL**
12 **INVESTMENT PERIOD?**

13 **A.** The owners of Palo Verde have identified a number of capital projects that will
14 need to be implemented during the Capital Investment Period. On a collective
15 basis, these projects represent a significant portion of PNM's capital spending
16 related to generation resources. There are seven Tier 1 capital improvement
17 initiatives that will be implemented at Palo Verde across all of the units. The
18 capital costs discussed below are for all three Palo Verde units.

19
20 Nuclear generating units, including Palo Verde, must operate in compliance with
21 Nuclear Regulatory Commission ("NRC") regulations and oversight. Plant
22 operations are continuously reviewed by the NRC and failure to implement
23 capital projects that are necessary for the safe and reliable operation of a nuclear

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1 plant can lead to regulatory action, including curtailment of operations in extreme
2 situations.

3
4 **Q. WHAT ROLE DOES CAPITAL INVESTMENT PLAY IN THE**
5 **AVAILABILITY OF PALO VERDE?**

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

11
12 **Q. ARE THERE ANY SPECIFIC CAPITAL INVESTMENTS AT PALO**
13 **VERDE THAT PNM WISHES TO DETAIL?**

14 **A.** The ongoing capital investment at Palo Verde is captured in the seven Tier 1
15 projects entitled:

- 16 1. PV1 Capital structures all years (ID# 72123410)
- 17 2. PV2 Capital structures all years (ID# 72223410)
- 18 3. PV3 Capital structures all years (ID# 72323410)
- 19 4. PV Common capital structures all years (ID# 72423410)
- 20 5. PV Common water rec facility capital structures all years (ID# 72523410)
- 21 6. PV Common (ID# 72423008)
- 22 7. PC Common CBI's (ID# 72423009)

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1 APS operates Palo Verde and prefers to aggregate multiple capital projects under
2 single blanket projects. All of the above seven Tier 1 projects are structured in
3 this manner. Within these capital blanket projects are multiple projects targeting
4 work to maintain the nuclear reactors, steam generation systems, turbine
5 generators and related nuclear safety components. In general, these capital
6 projects are required to maintain reliability levels and to conform to regulatory
7 requirements.

8
9 **Q. HOW DO THE PALO VERDE OWNERS ASSURE THAT THE VARIOUS**
10 **CAPITAL EXPENDITURES ARE REASONABLE AND NECESSARY?**

11 **A.** Prior to the start of any Capital Budget Item (“CBI”) contained in the above Tier
12 1 capital projects, the scope of work, schedule, and costs are reviewed by all of
13 the Palo Verde owners. The owners then vote on the CBI and the associated
14 capital expenditures. All of the various projects under Palo Verde’s seven Tier 1
15 capital projects were reviewed and approved in this manner.

16
17 The capital cost for these seven Tier 1 projects during the Capital Investment
18 Period is approximately \$83.5 million. A more detailed description of the Palo
19 Verde Tier 1 capital projects can be found in PNM Exhibit CMO–2.

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Q. WHAT IS THE OTHER NON-O&M EXPENDITURE ASSOCIATED WITH PALO VERDE?

A. The other non-O&M expenditure deals with the cost of nuclear fuel which is used by Palo Verde to generate electricity. As part of the operations of the plant, APS purchases, processes and stocks nuclear fuel to be used in the reactors. Palo Verde reloads its reactors with nuclear fuel on a tightly controlled eighteen-month cycle. Once the fuel has been loaded into the reactor, the nuclear process converts the fuel to produce heat. This heat is used to boil water which creates the steam that drives Palo Verde's turbines which in turn drive electric generators. After the eighteen-month cycle, approximately forty percent of the fuel rods will require replacement due to the nuclear fission process. As this is a tightly controlled nuclear reaction, the physical amount of fuel required to run the station is known with great accuracy. This enables very accurate forecasts of the future nuclear fuel requirements.

APS provides PNM and the other owners with an accounting of the capital costs associated with nuclear fuel. The forecasted capital costs and refueling activity are presented in Rule 530, Schedule B-7 for the linkage data and test period. At June 30, 2016, the nuclear fuel capital account balances were \$82.6 million. After taking into account forecasted purchases, refueling and nuclear fuel amortization, the forecasted nuclear fuel capital account balances at the end of the Test Period, December 31, 2018, is \$86.9 million. The forecasted purchases and processing for nuclear fuel reloads are based on information provided by APS. PNM relies

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1 on the information from APS to project the nuclear fuel capital requirements.
2 However, PNM does monitor APS's forecasted annual requirements for any
3 significant cost changes. The most recent ten year forecast from APS from 2017
4 through 2026 shows the year-to-year annual nuclear fuel cost changes range from
5 +5.3% to -7.4%. The Test Period nuclear fuel cost increased by 5.2% from the
6 Base Period. This increase falls within the APS's 10 year forecast cost range of
7 +5.3% to -7.4%. PNM Witness Monroy addresses nuclear fuel amortization
8 related to nuclear fuel inventory balances.
9

10 ***C. Four Corners Power Plant***

11 **Q. PLEASE PROVIDE FURTHER BACKGROUND ON FOUR CORNERS**
12 **AND ITS ROLE IN PNM'S GENERATION PORTFOLIO.**

13 **A.** APS also operates Four Corners which is located near Fruitland, New Mexico and
14 formerly consisted of five coal-fired generation units. Four Corners Units 1, 2
15 and 3 have been retired for purposes of compliance with the EPA's Regional
16 Haze Rule. PNM does not own any interest in the retired units. PNM owns a
17 thirteen percent share of Four Corners Units 4 and 5, representing 200 MW,
18 which it acquired in 1969 and 1970, respectively. Four Corners provides needed
19 baseload energy and capacity to serve PNM customers on a round-the-clock basis.
20

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

3 **A.** Yes, a Tier 1 capital project entitled “Four Corners SCR U4 and U5 (ID#
4 71522912), is required to comply with the EPA’s Regional Haze Rule. The
5 owners of Four Corners are implementing a necessary environmental upgrade, the
6 SCR Project. The SCR Project involves the retrofit installation of SCR emission
7 control technology on the remaining operating Units 4 and 5.

8
9 **Q. CAN YOU PLEASE GENERALLY DESCRIBE SCR AND HOW IT**
10 **WORKS?**

11 **A.** SCR is a post-combustion control technology which reduces NOx emissions.
12 During the combustion process, the nitrogen that is naturally present in the coal,
13 and the nitrogen and oxygen present in the combustion air, combine to form
14 NOx. With an SCR, vaporized urea (ammonia) is injected into the flue gas stream
15 and acts as a reducing agent of NOx resulting in end products of nitrogen and
16 water

17
18 **Q. PLEASE PROVIDE SOME BACKGROUND REGARDING THE**
19 **REQUIREMENT TO INSTALL SCR AT ON UNITS 4 AND 5 AT FOUR**
20 **CORNERS?**

21 **A.** In 2005, EPA issued final amendments to its Regional Haze Rule that requires
22 power plants to use best available retrofit technology emission controls known as
23 BART.

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1 In 2010, the EPA issued its proposed BART determination for Four Corners. The
2 proposed rule would have required the installation of post-combustion controls on
3 each of the five units at Four Corners to reduce NOx emissions. The EPA also
4 indicated in the proposal that it was considering requiring the installation of
5 electrostatic precipitators or baghouses on Units 1, 2 and 3 to reduce particulate
6 matter emissions. The EPA proposed a 10% stack opacity limitation for all five
7 units. 75 FR 64221, Source Specific Federal Implementation Plan for
8 Implementing Best Available Retrofit Technology for Four Corners Power Plant:
9 Navajo Nation (10/19/2010).

10
11 **Q. HOW DID APS, AS PLANT OPERATOR, RESPOND TO THE EPA**
12 **PROPOSED BART DETERMINATION?**

13 **A.** On November 24, 2010, APS submitted a letter to the EPA with an alternative to
14 the EPA's proposed BART determination for Four Corners. APS proposed to
15 close Four Corners Units 1, 2 and 3 by 2014, and to install SCR for NOx on Units
16 4 and 5 by the end of 2018.

17
18 **Q. WHAT DID THE EPA ULTIMATELY APPROVE WITH RESPECT TO**
19 **THE BART DETERMINATION FOR FOUR CORNERS?**

20 **A.** On August 24, 2012, the EPA promulgated its final BART determination for the
21 Regional Haze Rule for Four Corners. The determination included two
22 compliance alternatives for NOx emissions. The first alternative required a plant-
23 wide BART emission limit of 0.11 lbs/MMBtu which would require post

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1 emission control technology on all five units. The second alternative required the
2 closure of Units 1, 2 and 3 by January 1, 2014, and compliance with a BART
3 NOx emission limit of 0.098lb/MMBtu on Units 4 and 5. 75 CFR 51620, Source
4 Specific Federal Implementation Plan for Implementing Best Available Retrofit
5 Technology for Four Corners Power Plant: Navajo Nation; Final Rule
6 (8/24/2012). After receiving an extension of the initial notice deadline, APS was
7 required by EPA to provide notice by December 31, 2013, which compliance
8 alternative was selected.

9
10 **Q. WHICH COMPLIANCE ALTERNATIVE WAS SELECTED?**

11 **A.** On December 30, 2013, APS notified EPA that the Four Corners owners selected
12 the second alternative that required the permanent closure of Units 1, 2 and 3 by
13 January 1, 2014, and installation of SCR post-combustion NOx controls on both
14 Units 4 and 5 by July 31, 2018. PNM owns a 13% interest in Units 4 and 5, but
15 had no ownership interest in Units 1, 2, and 3, which were shut down by APS on
16 December 30, 2013 in conformity with the approved EPA alternative.

17
18 **Q. WHAT IS THE TIMING OF THE INSTALLATION OF SCR ON FOUR**
19 **CORNERS UNITS 4 AND 5?**

20 **A.** SCR technology will be completed on Unit 5 by December 19, 2017, and on Unit
21 4 by April 24, 2018. This schedule meets the implementation due dates set by the
22 EPA of March 31, 2018, for Unit 5 and July 31, 2018, for Unit 4.

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Q. WAS THE INSTALLATION OF SCR ON FOUR CORNERS UNITS 4 AND 5 APPROVED BY THE OWNERS?

A. Yes. The installation of SCR was approved by the current Four Corners owners which are APS, PNM, Salt River Agricultural Improvement and Power District and Tucson Electric Power Company. Southern California Edison Company ("SCE") decided to exit the Four Corners project and APS acquired SCE's 48% interest in Units 4 and 5 on December 30, 2013. El Paso Electric Company ("EPE") also decided to exit the Four Corners Project. APS acquired EPE's 7% interest in Units 4 and 5 on July 6, 2016. Because both SCE and EPE were both exiting before the time when the SCR installation would occur, they did not have a vote on the SCR project.

Q. WHAT IS PNM'S SHARE OF THE COST OF THE SCR PROJECT?

A. As a 13% owner of Four Corners Units 4 and 5, PNM's share of the SCR Projects costs is approximately \$90.1 million including AFUDC.

Q. HOW DID APS ASSURE THAT THE COST FOR INSTALLING SCR WAS REASONABLE?

A. APS used a competitive bid process to develop the estimated costs, and entered into an EPC contract with a firm experienced in SCR projects utilizing an "open-book" process to examine cost estimates and their bases before completing the contract. The owners,

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1 including PNM, followed the review and approval processes for the Four Corners SCR
2 Project.

3
4 **Q. HOW WILL THE SCR PROJECT BE MANAGED?**

5 **A.** Due to the size and complexity of the SCR project APS engaged AECOM/URS as
6 the EPC contractor and Burns & McDonnell as the Owner's Engineer. The scope
7 of the project includes the design, procurement, construction, commissioning and
8 testing of SCR technology onto Four Corners Units 4 and 5.

9
10 **Q. IS PNM'S SHARE OF THE COSTS FOR THE FOUR CORNERS SCR**
11 **NECESSARY AND REASONABLE?**

12 **A.** Yes. PNM's share of Four Corners is an existing and certificated base load
13 resource and it is used to cost-effectively and reliably serve PNM's customers.
14 The SCR Project is required under EPA regulations which must be complied with
15 if Four Corners is to continue to serve the customers of the Four Corners owners,
16 including PNM. The process that was used by APS for the engineering,
17 procurement and construction of the SCR Project was reasonable and in
18 accordance with industry standards, and the resulting costs of the project are also
19 reasonable.

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1 **Q. ARE THERE TIER 1 CAPITAL PROJECTS AT FOUR CORNERS IN**
2 **ADDITION TO THE SCR PROJECT?**

3 **A. Yes, there are two Tier 1 capital projects at Four Corners entitled:**

- 4 1. Four Corners Facility Improvements (ID# 71519210)
5 2. Four Corners Facility Improvements (ID#71519017)

6
7 APS aggregates multiple capital projects under a single blanket project. The
8 “Four Corners Facility Improvement” projects are structured in this manner.
9 Included in these capital blanket projects are multiple projects targeting
10 reliability, safety, regulatory and environmental compliance.

11
12 The Tier 1 capital project “Facility Improvement Project (ID# 71519210)” is used to
13 support APS’s System Health Process. The System Health Process analyzes the
14 different process areas and systems at Four Corners. Subject matter experts (“SMEs”)
15 or process teams are assigned to review and analyze the system’s performance and
16 health based on equipment condition and performance parameters. The SME team
17 reviews and evaluates system issues including equipment reliability issues, forced
18 outage related information, corrective maintenance history, work order backlog, vendor
19 bulletins, etc. Based on this evaluation, the SME team assigns a health color (Green =
20 acceptable, White = monitor, Yellow = marginal or Red = unacceptable) to the system.
21 Systems or process areas with yellow or red colors require a system health plan designed
22 to move the system back to white or green. The plan may include capital projects to
23 address the system health. The Plant Health Committee conducts full evaluations

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1 annually while system colors and plans are evaluated at least quarterly. This Tier 1
2 capital project addresses the capital projects identified as part of the System Health
3 Process. The estimated capital cost for the “Four Corners Facility Improvements (ID#
4 71519210)” project during the Capital Investment Period is \$41.0 million.

5
6 For the Facility Improvement Project (ID#71519017), APS bundled multiple projects
7 focusing on safety requirements, maintaining NERC and environmental compliance,
8 improving reliability of the units, and reducing overall maintenance costs. Key work in
9 this Tier 1 capital project includes generator rewinds, boiler component replacements,
10 ash handling equipment replacement, and baghouse component replacements. The
11 estimated capital cost for the “Four Corners Facility Improvements (ID# 71519017)” is
12 \$17.0 million.

13
14 **Q. HOW DO THE FOUR CORNERS OWNERS ASSURE THAT THE**
15 **VARIOUS CAPITAL EXPENDITURES ARE REASONABLE AND**
16 **NECESSARY?**

17 **A.** Prior to the start of any CBI contained in the above Facility Improvement
18 Projects, the scope of work, schedule, and costs are reviewed by all of the Four
19 Corners owners. The owners then vote on the CBI and the associated capital
20 expenditures. All of the various projects under Facility Improvement Projects
21 (ID# 71519210) and (ID#71519017) were reviewed and approved in this manner.
22 A more detailed description of the Tier 1 Four Corners Facility Improvement project,

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1 along with an additional Tier 2 projects, can be found in PNM Exhibit CMO-2 and
2 PNM Exhibit CMO-3.

3
4 ***D. Afton Generating Station***

5 **Q. PLEASE PROVIDE BACKGROUND INFORMATION ON AFTON.**

6 **A.** Afton is a natural gas-fired generating plant that is wholly-owned and operated by
7 PNM, and is located near La Mesa in the southern part of New Mexico. It
8 consists of one General Electric (“GE”) Frame 7FA gas turbine, a heat recovery
9 steam generator, and a GE A10 steam turbine. Afton can be operated in a simple
10 cycle mode or as a combined cycle generating facility. Power generated at Afton
11 can be delivered to customers in southern New Mexico or to northern New
12 Mexico via contracted transmission rights.

13
14 **Q. PLEASE DESCRIBE THE CAPITAL INVESTMENTS THAT PNM WILL**
15 **MAKE AT AFTON DURING THE CAPITAL INVESTMENT PERIOD.**

16 **A.** The majority of the ongoing capital investment at Afton is captured in the two
17 Tier 1 projects entitled:

18 1. Afton Gas Turbine Major Outage (ID# 70716210)

19 2. Afton Capital Improvements 2016 (ID# 70716115)

20 The Tier 1 capital project “Afton Gas Turbine Major Outages (ID# 70716210)” is
21 for the required, periodic gas turbine major maintenance. This capital work
22 includes the hot gas path and other major inspections, where all of the combustor

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1 parts (fuel nozzles, combustion sleeves, transition pieces, etc.) and turbine parts
2 (nozzles, blades, shrouds, etc.) are replaced. In addition, during major
3 inspections, the compressor and the generator will be opened, inspected and
4 tested, and the entire turbine rotor is removed from the case for de-blading and
5 testing. The capital cost for this project during the Capital Investment Period is
6 estimated to be \$6.5 million. The completion of this project will maintain or
7 improve Afton's overall reliability.

8
9 The Tier 1 project "Afton Capital Improvements 2016 (ID# 70716115)" is used to
10 support emergent capital projects during the Capital Investment Period. These
11 funds will be used to address emergent safety, regulatory and/or performance
12 issues in 2016. The estimated capital cost for this project during the Capital
13 Investment Period is \$1.1 million. A more detailed description of Afton's Tier 1
14 projects and all of the Tier 2 projects can be found in PNM Exhibits CMO-2 and
15 CMO-3.

16
17 ***E. Luna Energy Facility***

18 **Q. PLEASE PROVIDE BACKGROUND INFORMATION ON THE LUNA**
19 **ENERGY FACILITY.**

20 **A.** Luna is a 558 MW natural gas-fired combined cycle generating facility located
21 near Deming, New Mexico. The facility consists of two GE frame 7FA gas
22 turbines, two heat recovery steam generators, and one GE D11 steam turbine.

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1 PNM, Tucson Electric Power Company, and Samchully Power and Utilities 1,
2 LLC, jointly own equal shares in Luna, with PNM serving as operating agent
3 under the participation agreement among the three owners. The owners have
4 contracted with the NAES Corporation to provide on-site O&M. Power generated
5 at Luna can be delivered to customers in southern New Mexico or to northern
6 New Mexico via owned or contracted transmission rights.

7
8 **Q. PLEASE DESCRIBE THE CAPITAL INVESTMENTS THAT PNM WILL**
9 **MAKE AT LUNA DURING THE CAPITAL INVESTMENT PERIOD.**

10 **A.** The majority of the ongoing capital investment at Luna is captured in three Tier 1
11 expenditures entitled:

- 12 1. Luna Major Turbine Outages (ID# 74417010)
- 13 2. Luna Capital Improvements 2016 (ID# 74416115)
- 14 3. Luna Capital Improvements 2017 (ID# 74416215)

15
16 The capital cost for these three Tier 1 projects during the Capital Investment
17 period is approximately \$7.9 million. A more detailed description of the Luna
18 capital projects along with additional Tier 2 and Tier 3 projects can be found in
19 PNM Exhibit CMO-2, PNM Exhibit CMO-3 and PNM Exhibit CMO-4,
20 respectively.

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Q. PLEASE DESCRIBE THE THREE TIER 1 CAPITAL PROJECTS FOR LUNA.

A. The Luna Major Turbine Outages (ID# 74417010) project is for the periodic gas turbine major maintenance, which includes Hot Gas Path Inspections and Major Inspections, as well as steam turbine Major Inspections, on a prescribed schedule based on gas turbine operating hours and fired starts. The major maintenance activities to be performed are the Hot Gas Path Inspections on Unit 2 and Unit 1 gas turbines in the test period and a steam turbine Major Inspection also in the test period. Total cost of this capital project is approximately \$6.0 million. The completion of this project will maintain or improve Luna's overall reliability.

The Luna Capital Improvements 2016 (ID# 74416115) project is for materials and external labor to address smaller emergent capital improvement projects at Luna in 2016. The need for these projects is to perform improvements related to emergent safety, regulatory and/or performance issues. By performing these projects, PNM will ensure the ongoing safe, compliant, efficient, and reliable operation of the plant. The projects currently in scope focus on improvements to the cooling tower and its systems to ensure unit availability. These improvements include upgraded impellers for the circulating water pumps, replacement of deteriorating lamella fill, and replacement of structural members. Total cost of this capital project is approximately \$0.9 million.

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1 The Luna Capital Improvements 2017 (ID# 74416215) project is for various
2 emergent capital improvement projects at Luna in 2017. Such capital
3 improvement projects will address emergent safety, regulatory and performance
4 issues to assure ongoing compliant, efficient and reliable operation of the plant.
5 Projects to be completed under this fund in 2017 include cooling tower structural
6 upgrades, Mark VI control system interface upgrades, upgrades to the gas turbine
7 controls for primary frequency response, replacement of NOx analyzers,
8 replacement of programmable logic controllers, and upgrades to plant structures
9 to improve access to equipment and personnel safety. Total cost of this capital
10 project is approximately \$1.0 M.

11
12 ***F. Lordsburg Generating Station***

13 **Q. PLEASE DESCRIBE THE LORDSBURG GENERATING STATION.**

14 **A.** Lordsburg is an 80 MW simple cycle natural gas-fired generation facility located
15 in Hidalgo County, New Mexico. The plant consists of two GE LM6000 aero-
16 derivative gas turbines that provide peaking power to PNM's customer
17 base. Lordsburg is wholly-owned by PNM, and PNM contracted with the NAES
18 Corporation to provide on-site O&M on behalf of PNM. Power generated at
19 Lordsburg can be delivered to customers in southern New Mexico or to northern
20 New Mexico via owned transmission rights.

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1 **Q. PLEASE DESCRIBE THE CAPITAL INVESTMENTS THAT PNM WILL**
2 **MAKE AT LORDSBURG DURING THE CAPITAL INVESTMENT**
3 **PERIOD.**

4 **A.** Lordsburg has no Tier 1 capital projects. It does have several Tier 2 capital
5 projects targeting compliance, safety and reliability of the station. A more
6 detailed description of each of these projects can be found in PNM Exhibit
7 CMO-3.

8

9 **G. *Reeves Generating Station***

10 **Q. PLEASE PROVIDE BACKGROUND INFORMATION ON THE REEVES**
11 **GENERATING STATION.**

12 **A.** Reeves is a 154 MW natural gas-fired generating plant that is wholly-owned and
13 operated by PNM, and is located in northern Albuquerque. Reeves consists of
14 three gas-fired conventional boiler and steam turbine units. Units 1 and 2 produce
15 44 MW each, and Unit 3 produces 66 MW. Power generated at Reeves can be
16 delivered to customers in northern and southern New Mexico via owned or
17 contracted transmission rights.

18

19 **Q. PLEASE DESCRIBE THE CAPITAL INVESTMENTS THAT PNM WILL**
20 **MAKE AT REEVES DURING THE CAPITAL INVESTMENT PERIOD.**

21 **A.** Reeves has no Tier 1 capital projects. It does have several Tier 2 and Tier 3
22 capital projects targeting compliance, safety and reliability of the station. A more

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1 detailed description of each of these projects can be found in PNM Exhibit
2 CMO-3 and PNM Exhibit CMO-4, respectively.

3
4 ***H. Rio Bravo Generating Station***

5 **Q. PLEASE PROVIDE INFORMATION ON RIO BRAVO.**

6 **A.** Rio Bravo is a simple-cycle 138 MW dual fuel generating plant that is wholly-
7 owned and operated by PNM, and is located in Albuquerque. Rio Bravo can
8 operate on diesel fuel or natural gas and consists of one GE Frame 7FA gas
9 turbine. Power generated at Rio Bravo can be delivered to customers in northern
10 and southern New Mexico via owned or contracted transmission rights.

11
12 **Q. PLEASE DESCRIBE THE CAPITAL INVESTMENTS THAT PNM WILL**
13 **MAKE AT RIO BRAVO DURING THE CAPITAL INVESTMENT**
14 **PERIOD.**

15 **A.** Rio Bravo has no Tier 1 capital projects. It does have several Tier 2 and Tier 3
16 capital projects targeting compliance, safety and reliability of the station. A more
17 detailed description of each of these projects can be found in PNM Exhibit
18 CMO-3 and PNM Exhibit CMO-4, respectively.

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I. La Luz Energy Center

Q. PLEASE PROVIDE INFORMATION ON LA LUZ.

A. La Luz is a 40 MW natural gas-fired generating station that is wholly-owned and operated by PNM and is located near Belen in Valencia County. The La Luz plant's generator is a GE LM6000 aeroderivative which provides quick start capability needed for voltage regulation and peak demand response. La Luz is sited adjacent to an existing PNM switching station and transmission facilities.

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

A. La Luz has no Tier 1 capital projects. It does have several Tier 2 and Tier 3 capital projects targeting compliance, safety and reliability of the station. A more detailed description of each of these projects can be found in PNM Exhibit CMO-3 and PNM Exhibit CMO-4, respectively.

J. Other Generation Capital Investments

Q. PLEASE DESCRIBE THE CAPITAL INVESTMENTS THAT PNM WILL MAKE AT GENERATION HQ-AZTEC DURING THE CAPITAL INVESTMENT PERIOD.

A. Generation HQ-Aztec refers to the building located at 2401 Aztec Rd, NE in Albuquerque which houses certain Generation management and personnel who provide management oversight and other services for PNM's generation fleet.

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1 The Aztec Generation HQ building has two Tier 2 capital projects targeting
2 facility security and asset management. A more detailed description of each of
3 these projects can be found in PNM Exhibit CMO-3.

4
5 **VI. PNM'S GENERATION NON-FUEL O&M EXPENDITURES**

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

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

- 11 • Describe the process used to establish PNM's Generation O&M
12 budget and the oversight and management of these expenditures;
- 13 • Confirm the reasonableness of the Base Period Generation O&M
14 expenses utilized by PNM Witness Monroy in his forecasts for these
15 expenses in the Test Year; and
- 16 • Describe why it is appropriate to normalize the O&M expenses for
17 certain PNM generation resources.

18
19 **Q. WHAT O&M EXPENDITURES ARE ASSOCIATED WITH PNM'S**
20 **GENERATION FACILITIES?**

21 **A.**PNM's Generation O&M expenses are the result of the day-to-day cost of safely
22 and reliably operating PNM's generation resources and expenditures that are

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1 required to successfully execute the O&M work completed during scheduled
2 maintenance. O&M expenses in both cases are comprised of several categories.
3 The most significant expenses are the labor and labor-related expenses of the
4 employees and contract workers that operate and maintain PNM's generation
5 resources as well as those employees in generation support roles, such as resource
6 planning and development, and fuels.

7
8 **Q. WHAT IS THE PROCESS THAT PNM GENERATION USES TO**
9 **ESTABLISH THE O&M BUDGET?**

10 **A.** PNM's O&M budget development is a multi-step process. Staff from each plant
11 within PNM Generation reviews data from previous years and evaluates known
12 changes. Each plant's staff adjusts the projection based on historical data for
13 known variances, such as scheduled maintenance work, additional contract
14 studies, etc., and inputs this data into PNM's budgeting system and projects
15 forward five years using standard escalation rates for these components. Labor
16 costs were escalated as discussed by PNM Witness Monfiletto. Most non-labor costs
17 are escalated as discussed by PNM Witness Monroy. Examples of cost categories
18 that are reviewed are staffing levels, payroll (both straight time and overtime),
19 outside services, equipment and materials. Senior management approves the O&M
20 budget.

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

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

7

8 The preparation of the O&M budgets at both Four Corners and Palo Verde, which
9 are operated by APS, follow the same rigorous process as described earlier with
10 respect to the APS capital budget process. APS prepares the O&M budget and
11 priorities for both Four Corners and Palo Verde. APS then presents the proposed
12 O&M budgets to each plant's ownership committees for their review. The
13 ownership committees review the budget and provide input as necessary. The
14 final annual O&M budgets are then put to a vote of each facility's owners.

15

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

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

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1 **Q. HOW DOES PNM MINIMIZE O&M COSTS TO CUSTOMERS?**

2 **A.** PNM actively manages projects to ensure that costs are consistent with budgeted
3 amounts. Of course, some projects will come in above and others below budget.
4 When necessary, PNM finds offsets to ensure that we achieve our overall O&M
5 budget targets for Generation. PNM utilizes its Procurement Team to review
6 market information while competitively sourcing material and/or services to
7 achieve the lowest reasonable cost and best value for customers. PNM utilizes a
8 proactive process of reviews, cost controls, and communication to drive project
9 and site level accountability. This results in a process that meets operational and
10 customer needs.

11

12 **Q. WHAT PROCESS DOES GENERATION USE TO MANAGE O&M**
13 **COSTS AT THE PLANTS WHERE PNM IS THE OPERATOR?**

14 **A.** PNM manages its O&M expenditures by reviewing all aspects of its operations
15 for savings. Management reviews of the O&M budget are held among the Vice
16 President of Generation, the Plant Directors, the Director of Wholesale Power
17 Marketing, and the Director of Generation Services on a monthly and quarterly
18 basis. Appropriate efforts are made to help ensure that the budgets remain on
19 target.

20

21 Luna and San Juan also have additional budget reviews held among the members
22 of the respective ownership groups on a regular basis. The goal of these reviews
23 is to monitor the expenditures of each plant and make sure that expenditures are

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1 reasonable, necessary and within the expected amount. Unforeseen circumstances
2 can result in scope changes that can cause cost variances and lead to changes to
3 the maintenance schedules. As noted previously, PNM continually attempts to
4 optimize scheduled maintenance as the need for maintenance work emerges at
5 each unit and as work is completed during forced outages.

6
7 **Q. WHAT PROCESS DOES GENERATION USE TO MANAGE O&M**
8 **COSTS AT THE APS OPERATED PLANTS (FOUR CORNERS AND**
9 **PALO VERDE)?**

10 **A.** Budget reviews are held on a regular basis. The goals of these reviews are to monitor
11 the expenditures of each plant and make sure that expenditures are reasonable, necessary
12 and within the expected amounts. Unforeseen circumstances can result in scope
13 changes that can cause cost variances and lead to changes to work schedules. PNM
14 management reviews of the O&M budgets are held among the Vice President of
15 Generation, the Plant Directors or Project Manager, the Director of Wholesale Power
16 Marketing, and the Director of Generation Services on a monthly and quarterly basis.
17 Appropriate efforts are made to help ensure that the budgets remain on target.

18
19 **Q. ARE YOU FAMILIAR WITH THE GENERATION O&M EXPENSES**
20 **THAT PNM WITNESS MONROY USED FOR HIS BASE PERIOD**
21 **CALCULATION?**

22 **A.** Yes. PNM Witness Monroy used the actual Generation O&M expenditures for
23 the period between July 1, 2015, and June 30, 2016, in developing his Base Period

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1 O&M expenses. The expenditures were made in conformity with the O&M
2 budgeting process that I just described and represent a reliable and reasonable
3 foundation for PNM Witness Monroy's cost of service analysis.
4

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

8 **A.** As explained by PNM Witness Monroy, he started with the Base Period
9 Generation expenditures and applied appropriate annual escalation factors to
10 derive his Test Period numbers. He also made certain adjustments that he
11 describes in his direct testimony.
12

13 **Q. PNM WITNESS MONROY IS ALSO INCLUDING O&M COSTS FOR**
14 **SAN JUAN UNIT 4 AND PALO VERDE UNIT 3 DURING THE TEST**
15 **YEAR. ARE THESE APPROPRIATE ADJUSTMENTS TO MORE**
16 **ACCURATELY ESTIMATE PNM'S O&M EXPENSES?**

17 **A.** Yes. The 132 MW of San Juan Unit 4 and the 134 MW of Palo Verde 3 will be
18 PNM jurisdictional resources in 2018. There will be O&M costs associated with
19 each of these facilities that are appropriate to include in the Test Period.
20

21 **Q. ONE OF THE ADJUSTMENTS THAT PNM WITNESS MONROY**
22 **SHOWS TO ARRIVE AT HIS TEST YEAR O&M EXPENSES WAS TO**
23 **LEVELIZE GENERATION O&M COSTS RELATED TO BASELOAD**

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**POWER PLANT OUTAGES OVER A SIX-YEAR PERIOD. 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 are typically very cost-intensive. Planned major outages at San Juan typically occur every two to three years on each unit. Planned major outages at Four Corners typically occur every three years with a planned minor outage at the mid-point of the major outage for each unit. Planned outages at Palo Verde typically take place about every eighteen months on each unit. Because of the varying outage schedules for San Juan, Four Corners and Palo Verde, the Base Period is not representative of the average major outage costs. Therefore, a six-year period was determined to provide the most representative of the average major outage costs.

**Q. ARE THE OUTAGE SCHEDULES FOR THE GAS PLANTS DIFFERENT
THAN THE BASELOAD PLANTS?**

A. Yes. The PNM-owned gas plants are operated on an as-needed basis and their outage schedules are based on gas turbine operating hours and fired starts, not on a calendar cycle like San Juan, Four Corners and Palo Verde. Depending on the varying annual capacity factors the gas plants outage periods can range from three to five years. Therefore a six-year outage period is an appropriate length of time to capture and average the major outage costs for the gas plants.

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1 **Q. PLEASE DESCRIBE THE ANALYSIS THAT WAS PERFORMED TO**
2 **DETERMINE THE ADJUSTMENTS THAT PNM WITNESS MONROY**
3 **UTILIZED.**

4 **A.** For all power plants, with the exception of Four Corners, PNM Witness Monroy
5 utilized the historical outage expenses incurred during the six-year period from
6 July 1, 2010, through June 30, 2016, to calculate an average outage expense. This
7 time period would encompass two major outages for San Juan Units 1 and 4, four
8 major outages for each Palo Verde unit, and two major outages at each gas plant
9 (Reeves, Luna and Afton). This is a reasonable adjustment to make in order to
10 derive representative O&M costs to be used for the Test Period. This is the same
11 methodology as was used and accepted in NMPRC Case No. 15-00261-UT.

12
13 **Q. HOW ARE THE REQUESTED COSTS FOR THE FOUR CORNERS**
14 **OUTAGES DEVELOPED FOR THE TEST YEAR?**

15 **A.** In reviewing the six years of historical outage expense and the long range
16 planning forecast provided by APS for Four Corners, it was determined that the
17 historical costs would not be representative of Linkage and Test Period costs.
18 Therefore, the Company analyzed the historical outage expenses for Four Corners
19 incurred during the four-year period from 2012 through 2015 and included
20 forecasted outage expenses for Linkage and Test Periods.

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Q. WHY ARE THE OUTAGE COSTS HIGHER IN LINKAGE AND TEST PERIOD AT FOUR CORNERS?

A. APS, as the operator of Four Corners, maintains a planned outage maintenance cycle according to Electric Power Research Institute and original equipment manufactures' recommendations and to implement changes to meet safety and environmental regulations. The work being done in the Linkage and Test Periods at Four Corners is a combination of the planned outage maintenance schedule and the integration of the new SCR's into the respective units. APS is taking advantage of the longer SCR installation outage to perform additional longer duration outage maintenance projects. These longer duration maintenance projects are projected to increase the total outage costs on Units 4 and Unit 5. In 2017, Four Corners will have a planned major outage to address maintenance items and integrate the SCR into Unit 5. In 2018, Four Corners will have a planned major outage to address maintenance items and integrate the second SCR into Unit 4.

Q. IS THIS A REASONABLE ADJUSTMENT TO MAKE?

A. This is a reasonable adjustment to make in order to derive representative O&M costs to be used for the Test Period. APS has provided both the historical and the forecasted costs used to calculate the average outage expense. The additional outage costs due to the longer duration maintenance projects while integrating the SCR's into the respective units are required and necessary.

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Q. CAN YOU ADDRESS THE ADJUSTMENTS TO O&M EXPENSES FOR THE VARIOUS GENERATION FACILITIES?

A. Yes. As stated earlier, each generation facility's Base Period O&M expenditures had the appropriate annual escalation factors applied to derive the Test Period numbers as discussed by PNM Witness Monroy. San Juan, Four Corners, La Luz and the 40 MW Solar Project, had O&M adjustments which varied from the standard annual escalation factors. Table CMO-3 denotes which O&M expenses were adjusted for each of these sites.

**Table CMO-3
Application of Non-Standard O&M Adjustments per Generation Site**

Generation Site	Labor	Overtime	Non – Labor
San Juan	Yes	No	Yes
San Juan Avoided O&M	No	No	Yes
Four Corners	Yes	Yes	Yes
La Luz	No	No	Yes
40 MW Solar	No	No	Yes

Any O&M expense adjustments denoted as 'yes' in Table CMO-3 are discussed in detail separately below.

Q. DESCRIBE HOW SAN JUAN'S TEST PERIOD LABOR O&M EXPENSES WERE DEVELOPED ASSOCIATED WITH EXPECTED ATTRITION RELATED TO THE ABANDONMENT OF UNITS 2 AND 3.

A. To develop the Test Period labor O&M expenses, PNM needed to make adjustments to headcount due to anticipated attrition and the retirement of San Juan Units 2 and 3. The full time equivalent ("FTE") employees as of June 30,

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2016, was 257. Due to attrition, a reduction in FTE of nine employees is forecasted in 2017 and another twenty-one employees in 2018. This brings the forecasted FTE in the Test Period to 227. The additional labor expense associated with the 132 MW of San Juan Unit 4 is captured by the change of ownership share beginning January 1, 2018. The labor associated with the 65 MW of San Juan Unit 4 merchant capacity has been excluded. A more detailed description of the methodology used to calculate the San Juan Test Period Labor O&M expenses is provided and supported by PNM Exhibit HEM-4 WP LA-4.

Q. DESCRIBE HOW SAN JUAN'S TEST PERIOD NON-LABOR O&M EXPENSES WERE DEVELOPED.

A. To develop the Test Period Non-Labor O&M expenses PNM made reductions to the Adjusted Base Period to reflect the changes in non-labor O&M as a result of the abandonment of San Juan Units 2 and 3 on December 31, 2017. PNM eliminated all costs that were recorded specifically to San Juan Unit 2 and 3. The additional non-labor O&M expenses associated with the 132 MW of San Juan Unit 4 are captured by the change of ownership share beginning January 1, 2018. The non-labor O&M expenses associated with the 65 MW of San Juan Unit 4 merchant capacity have been excluded from PNM retail as shown by PNM Witness Monroy.

In addition to the unit specific reductions above, PNM made percentage reductions to non-labor O&M in common (all San Juan units) locations to capture

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1 certain common O&M costs that will be reduced due to the closure of San Juan
2 Units 2 and 3.

3
4 There is common equipment that serves all four units. There is also common
5 equipment that serves just Units 1 and 2 and common equipment that serves just
6 Units 3 and 4. The shutdown of units 2 and 3 reduces, but does not eliminate the
7 use of the existing common equipment supporting Units 1 and 4. Therefore, with
8 the closure of Units 2 and 3, there will be an approximate 20% reduction in day to
9 day maintenance of the common systems because of less usage.

10
11 With respect to common location used to allocate variable fuel related costs, the
12 use of limestone is also expected to be reduced over a normal twelve-month
13 period due to the closure of the two units. However, the cost of limestone in the
14 Adjusted Base Period was low due to increase outage time primarily from the
15 SNCR installation. In the Test Period, PNM anticipates increased costs for
16 limestone as well as higher usage due to higher sulfur content in the coal
17 consumed. Therefore, for the Test Period, PNM expects a 15% reduction of
18 limestone costs from the Base Period, which takes into account these factors.

19
20 Finally, PNM identified one-time costs associated with the feed water system for
21 boiler feed pump repairs and SNCR startup costs that were recorded in the Base
22 Period. PNM does not anticipate these costs will recur in the Test Period and has

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1 adjusted the SJGS Unit 1 Base Period expense by 20% to reflect the removal of
2 these costs.

3
4 **Q. IN THE FINAL ORDER FOR CASE NO. 15-00261-UT, THE**
5 **COMMISSION ALLOWED RECOVERY OF \$300,000 PER YEAR TO**
6 **RECOGNIZE THE O&M COST SAVINGS ACHIEVED BY THE**
7 **BALANCED DRAFT INSTALLATION. IS PNM SEEKING RECOVERY**
8 **OF THE \$300,000 PER YEAR IN THIS CASE?**

9 **A.** Yes. By installing Balanced Draft on San Juan Units 1 and 4 PNM has avoided
10 and will continue to avoid O&M costs that previously were expended on duct leak
11 and casing repairs. To demonstrate the avoided O&M costs, PNM looked at six
12 years of historical expansion joint O&M costs for San Juan Units 1 and 4.
13 Although not each year in the six year history included these costs, the total of the
14 six years was averaged to determine an annual estimated O&M cost of \$479,433.
15 This demonstrates that on average, PNM will achieve O&M expense reductions
16 greater than the \$300,000 allowed for inclusion in the Final Order of NMPRC
17 Case No. 15-00261-UT. Please see PNM Exhibit CMO-8 for additional details of
18 this estimate.

19
20 **Q. DESCRIBE HOW SAN JUAN'S TEST PERIOD NON-LABOR O&M**
21 **UREA EXPENSES WERE DEVELOPED.**

22 **A.** SNCR reduction emission control technology was installed on San Juan Units 1
23 and 4 as part of the Revised SIP under the EPA's Regional Haze Rule. The

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1 SNCRs use urea, an amine-based reagent which is injected into the boiler and
2 reacts with NO_x to reduce it to molecular nitrogen and water. SJGS Units 1 and 4
3 began full operation of the SNCRs and the consumption of urea on January 31,
4 2016. Urea consumption is directly tied to the production of energy. To
5 annualize this urea usage, PNM captured the five months urea expense and the
6 associated total net energy produced from Units 1 and 4 for the period beginning
7 February 1, 2016, through June 30, 2016. These data were used to calculate the
8 urea cost per MWH of energy produced. This cost per MWH was then applied to
9 PNM's portion of the net energy produced to determine total PNM Adjusted Base
10 Period urea expense. For the Test Period, PNM applied that same cost per MWH
11 escalated at 1.5% to PNM's share of the net generation forecasted for SJGS Units
12 1 and 4 during the Test Period. Please see PNM Exhibit CMO-5 for the details of
13 the urea cost calculations.

14
15 **Q. DO THE PALO VERDE LABOR O&M EXPENSES INCLUDE APS**
16 **INCENTIVE COMPENSATION AND THE EARNING PER SHARE**
17 **(“EPS”) COMPONENT OF THE INCENTIVE COMPENSATION?**

18 **A.** Yes.

19
20 **Q. HOW HAS THE COMMISSION TREATED RECOVERY OF THE PALO**
21 **VERDE INCENTIVE COMPENSATION?**

22 **A.** The Commission has historically allowed full recovery for the Palo Verde
23 incentive compensation in prior cost of service studies; however, in NMPRC Case

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1 No. 15-00261-UT, the Commission disallowed the portion of the Palo Verde
2 incentive compensation that is related to the APS earnings per share ("EPS")
3 component. PNM is seeking inclusion for the entire Palo Verde incentive
4 compensation, including the EPS component.

5
6 **Q. WHAT ARE THE BASE PERIOD AND TEST PERIOD COSTS FOR THE**
7 **PALO VERDE INCENTIVE COMPENSATION?**

8 **A.** Palo Verde has had outstanding performance and as a consequence, has
9 consistently paid its annual incentive compensation. For the 2014 calendar year,
10 the total incentive compensation cost to PNM was \$4.7 million. For the 2015
11 calendar year, the total incentive compensation cost to PNM was \$4.8 million.
12 The incentive compensation costs for the base period of July 1, 2015, through
13 June 30, 2016, are calculated to be \$4.7 million which includes an estimated
14 \$815,000 for the EPS component. For the Test Period, the Base Period incentive
15 compensation was escalated by the standard 1.5% to yield \$4.8 million which
16 includes approximately \$827 thousand for the EPS component.

17
18 **Q. IS THE PALO VERDE INCENTIVE COMPENSATION, INCLUDING**
19 **THE EPS COMPONENT A REASONABLE AND NECESSARY COST OF**
20 **OPERATING THE PLANT?**

21 **A.** Yes and PNM is requesting that the Commission reinstate its prior practice of
22 allowing PNM to recover these costs. APS is the operator of Palo Verde, and as
23 such, charges the owners for its services and for the reasonable costs of operating

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1 the plant under the Arizona Nuclear Power Plant Project Participation Agreement
2 (“ANPP Participation Agreement”). These costs are rigorously reviewed and
3 approved by all of the Palo Verde owners. Included in these costs are the dollars
4 associated with the incentive compensation program.

5
6 PNM is required under the ANPP Participation Agreement to reimburse APS for
7 their reasonable costs to operate the plant just like the San Juan owners reimburse
8 PNM for PNM’s incentive plan, including any EPS component. Incentive
9 compensation including those portions that are tied to EPS are appropriate costs
10 that an operating agent incurs and passes along to the other plant owners and
11 which the owners are obligated to pay.

12
13 **Q. HOW DOES APS VERIFY THAT ITS PALO VERDE LABOR COSTS**
14 **ARE REASONABLE?**

15 **A.** The APS compensation strategy for Palo Verde includes a review of the relevant
16 labor market as well as an assessment of internal compensation equity, pay for
17 performance and cost effectiveness. The labor market is assessed by means of
18 salary surveys conducted by established companies that specialize in gathering
19 relevant compensation data. Base pay and the target for total cash compensation
20 are established at the 50th percentile of the competitive labor market. It is the
21 intent of APS to differentiate pay based on performance. High performing
22 employees have a base pay and target for total cash compensation of between the
23 50th percentile and the 90th percentile of the competitive labor market. APS

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1 reviews the labor market annually to ensure that employee pay level and salary
2 structure are competitive with the external market.

3
4 **Q. IS THE PAYMENT OF INCENTIVE COMPENSATION FOR POWER**
5 **PLANT PERSONNEL CONSISTENT WITH INDUSTRY PRACTICE?**

6 **A.** The use of an incentive compensation program at Palo Verde is not unusual and is
7 common across the industry. The incentive compensation costs are necessary to
8 attract and retain the skilled personnel required to reliably operate a nuclear power
9 plant. As a result, the Palo Verde team has performed well as evidenced by the
10 outstanding reliability results. This translates into Palo Verde providing needed
11 and reliable generation capacity for the benefit of PNM's customers. PNM
12 confirms that overall compensation costs for Palo Verde are reasonable and
13 necessary.

14
15 **Q. HOW CAN ONE DETERMINE WHETHER PNM CUSTOMERS ARE**
16 **BENEFITING FROM THE WORK PERFORMED BY THE APS**
17 **EMPLOYEES AT PALO VERDE?**

18 **A.** Palo Verde necessarily requires operation by the APS employees. It is these
19 employees who keep Palo Verde operating. One objective measure of how well
20 the APS employees are performing at Palo Verde is the outstanding performance
21 that Palo Verde has achieved in recent years. For example, in 2014, Palo Verde
22 set a production record by producing 32.3 million MWh, and exceeded that record
23 in 2015 by generating 32.5 million megawatt-hours.

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1 [http://www.pinnaclewest.com/newsroom/news-releases/news-release-
4 details/2016/Palo-Verde-Nuclear-Generating-Station-Sets-US-Power-Production-
5 Record/default.aspx](http://www.pinnaclewest.com/newsroom/news-releases/news-release-
2 details/2016/Palo-Verde-Nuclear-Generating-Station-Sets-US-Power-Production-
3 Record/default.aspx)

6 **Q. IS THERE ANY VALID POLICY REASON FOR THE COMMISSION TO**
7 **DISALLOW PNM RECOVERY FOR THE PALO VERDE INCENTIVE**
8 **COMPENSATION THAT IS BASED ON THE EPS PERFORMANCE OF**
9 **APS?**

10 **A.** My understanding is that the Commission policy against allowing recovery of
11 incentive compensation tied to EPS is based on the notion that only utility
12 shareholders benefit from increased EPS. This policy is not applicable to the Palo
13 Verde incentive compensation because PNM's shareholders are not benefiting as
14 a result of APS meeting its earnings goals. As noted above, PNM's customers
15 significantly benefit from a qualified and motivated Palo Verde labor force.

16 **Q. DESCRIBE HOW THE FOUR CORNERS NON-LABOR O&M UREA**
17 **EXPENSES WERE DEVELOPED.**

18 **A.** APS provided urea costs in the long range forecast for Four Corners during the
19 Test Period. The costs that were developed by APS for the Test Period assume
20 capacity factors of 50.0% for Unit 4 (lower capacity factor due to SCR outage)
21 and 71.3% for Unit 5. They then calculated the annual tons per year of dry urea
22 per unit based on those capacity factors at an averaged delivered price of \$404.30
23 per ton for urea. The total project urea expense in the test period is \$5.1 million

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1 and PNM's share is approximately \$662,000. Additional details are in PNM
2 Exhibit CMO-6.

3
4 **Q. ARE THERE ADDITIONAL O&M EXPENSES AT FOUR CORNERS**
5 **RELATED TO SCR THAT ARE INCLUDED IN THE TEST PERIOD?**

6 **A.** Yes. There will be additional labor and maintenance expenses in the Test Period.
7 All of the additional costs described below are in support of the SCR
8 environmental control system.

9
10 SCR Labor

11 There will be ten additional operators and two additional maintenance employees
12 added at Four Corners to run and maintain the SCR equipment in the Test Period
13 and beyond. The estimated expense for this additional labor, including overtime,
14 is \$904,400 and PNM's 13% share of that expense is \$117,572.

15
16 SCR Maintenance

17 The SCR equipment will require maintenance that APS has estimated to be \$1.2
18 million total project of which PNM's 13% share is approximately \$156,670 in the
19 test period.

20
21 Additional details of these expenses are in PNM Exhibit CMO-7.

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Q. DESCRIBE HOW THE LA LUZ GENERATING STATION NON-LABOR O&M EXPENSES WERE DEVELOPED AS SHOWN BY PNM WITNESS MONROY.

A. As mentioned, La Luz came online in December 2015 and therefore only six months totaling \$282,685 of non-labor O&M expense were recorded in the Base Period. The six months expenses were annualized to reflect a full twelve-month of expenses in the Adjusted Base Period. During the Base Period maintenance work was performed on the SCR equipment. This work was covered under warranty by the vendor and no costs were incurred by PNM. However, the SCR maintenance work that is anticipated in the future will not be covered under warranty. The adjusted Base Period O&M was further adjusted by \$142,000 to reflect those additional costs for a total adjusted annualized Adjusted Base Period cost of \$707,371. The adjusted annualized Base Period costs were then escalated by the standard non-labor escalation rates. Please see PNM Witness Monroy's Exhibit HEM-4 WP OM-14 for the La Luz non-labor cost worksheet.

Q. DESCRIBE HOW THE 40 MW SOLAR NON-LABOR O&M EXPENSES WERE DEVELOPED AS SHOWN BY PNM WITNESS MONROY.

A. The 40 MW solar came online in December 2015 and therefore only six months totaling \$381,370 of non-labor O&M were recorded in the Base Period. The six months expenses were annualized to reflect a full twelve-month of expenses in the Adjusted Base Period. In addition, the forecast calls for an additional \$40,000 for vegetation management not incurred in the first six months that is expected in a

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1 full year of operations. The Adjusted Base Period costs totaled \$802,739. Base
2 Period costs were then escalated by the standard non-labor escalation rate. Please
3 see PNM Witness Monroy's Exhibit HEM-4 WP OM-9.

4
5 **Q. PLEASE DISCUSS THE FINAL CONSTRUCTION COST FOR THE 40**
6 **MW SOLAR FACILITY?**

7 **A.** The Commission approved an estimated certificated cost of \$79.3 million for the
8 40 MW solar facility in NMPRC Case No. 14-00158-UT. The final cost for the
9 solar facility was \$80.7 million. The majority of the change from the original
10 estimated certificated cost were from two drivers. The first was higher AFUDC
11 rates than were originally estimated, which increased the capital project cost by
12 \$524,434. Second, due to access issues at the original site, PNM was forced to
13 change sites immediately before construction began. This change in siting led to
14 additional due diligence and increased land costs than estimated in the amount of
15 \$646,293.

16
17 **Q. ARE THE GENERATION O&M COSTS THAT PNM SEEKS TO**
18 **RECOVER IN THIS CASE REASONABLE AND NECESSARY?**

19 **A.** Yes. The estimated O&M expenditures are reasonable because they are based on
20 actual expenditures that were incurred after undergoing a robust budgeting
21 process. They represent costs that are necessary to provide for the operation and
22 maintenance of PNM's generation facilities to ensure that the lowest cost
23 resources to PNM's customers are available as much as possible rather than

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1 having to make more expensive external market purchases of generation.
2 Additionally, because these resources are necessary for the foreseeable future,
3 PNM's customers will get the benefit of a cost-effectively maintained generation
4 fleet.

VII. CONCLUSION

7 **Q. DO YOU HAVE ANY CONCLUDING OBSERVATIONS?**

8 **A.** Yes. Generating electricity is a very capital intensive enterprise. PNM has a
9 portfolio of generation resources that has served its customers well and requires
10 ongoing investments to safely, reliably and efficiently operate in the future. The
11 coal and nuclear base load plants have been the foundation of PNM's low cost
12 generation, which is reflected in PNM's reasonable rates. Investments in the
13 baseload plants as well as the other units in PNM's generation fleet are necessary
14 now and in the future to maintain the reliable level of service and low costs while
15 complying with all federal and state regulations. The costs associated with
16 investing in generation resources and operating and maintaining the generation
17 resources that PNM is presenting in this rate case are reasonable and necessary to
18 continue to provide cost-effective, reliable electricity to PNM's customers.

20 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

21 **A.** Yes.

GCG#522681

Résumé of Chris M. Olson

PNM Exhibit CMO-1

Is contained in the following 1 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, 1982-2000
General Manager, Regional Plants
Manager, NSPW 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

Generation Tier 1 Capital Projects

PNM Exhibit CM0-2

Is contained in the following 145 pages

Electronic Instructions:

To view detailed costs for each project, click project to highlight then Press “CTRL” and left click on mouse.

To return back to index from detailed costs, click “CTRL” and “Home”

Wednesday, November 16, 2016

7:48:26 PM

PNM EXHIBIT CMO-2-Generation Tier 1 Capital Projects

Link/Test

CWIP

Total

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Project No:70716115 Afton Capital Improvements 2016	\$1,060,449	\$0	\$1,060,449.....	5
Project No:70716210 Afton Gas Turbine Major Outage	\$6,536,573	\$0	\$6,536,573.....	9
Bulk Power Building Alloc.....	\$798,803	\$0	\$798,803.....	14
Project No:35730615 Generation Building Improvements	\$798,803	\$0	\$798,803.....	15
Four Corners	\$148,132,877 (.....	\$2,984,688) ..	\$148,132,877.....	19
Project No:71519017 Four Corners Facility Improvements	\$17,034,010 (.....	\$2,336,776)	\$17,034,010.....	20
Project No:71519210 Four Corners Facility Improvement	\$40,971,393 (.....	\$647,912)	\$40,971,393.....	24
Project No:71522912 FC SCR U4U5	\$90,127,475	\$0	\$90,127,475.....	29
Luna	\$7,866,903	\$49,837	\$7,866,903.....	33
Project No:74416115 Luna Capital Improvements 2016	\$855,428	\$49,837	\$855,428.....	34
Project No:74416215 Luna Capital Improvements 2017	\$988,183	\$0	\$988,183.....	38
Project No:74417010 Luna Gas Turbine Major Outages	\$6,023,292	\$0	\$6,023,292.....	42

Palo Verde	\$83,499,616 (.... \$18,335,127)	\$83,499,616.....	47	
Project No:72123410 PV1 capital structures all years	\$15,389,834 (..... \$4,144,073)	\$15,389,834.....	48	
Project No:72223410 PV2 capital structures all years	\$15,261,263 (..... \$2,868,934)	\$15,261,263.....	53	
Project No:72323410 PV3 capital structures all years	\$7,759,218 (..... \$3,558,563)	\$7,759,218.....	58	
Project No:72423008 PV Common	\$6,048,378	\$0	\$6,048,378.....	63
Project No:72423009 PV Common CBIs	\$2,147,983 (..... \$569,882)	\$2,147,983.....	68	
Project No:72423410 PV Common capital structures all years	\$28,247,048 (..... \$2,327,028)	\$28,247,048.....	73	
Project No:72523410 PV Common Water Rec Facility capital structures all years	\$8,645,892 (..... \$4,866,647)	\$8,645,892.....	78	
San Juan.....	\$26,247,670 (..... \$856,298)	\$26,247,670.....	83	
Project No:76116130 Unit 1 Absorber Double Head Spray Nozzles and Tray Upgrade - 2018	\$785,452	\$0	\$785,452.....	84
Project No:76116419 Unit 1 Boiler Outage - 2018	\$812,258	\$0	\$812,258.....	88
Project No:76416116 Unit 4 Baghouse Bag Replacement - 2018	\$1,592,730	\$0	\$1,592,730.....	92
Project No:76416216 Unit 4 Dewatering Bins - 2016	\$1,361,897	\$149,627	\$1,361,897.....	96
Project No:76416218 Unit 4 Boiler Outage - 2018	\$1,291,069	\$0	\$1,291,069....	100
Project No:76416817 Unit 4 Absorber Double Head Spray Nozzle and Tray Upgrade	\$1,058,064	\$0	\$1,058,064....	104
Project No:76616416 Common Lake Station Switchgear - 2016	\$1,113,243	\$0	\$1,113,243....	108
Project No:76616418 Common System Support - Retirements (58.671% PNM) - 2018	\$1,664,753	\$0	\$1,664,753....	112
Project No:76616516 Common North Side Evaporation Pond Remediation - Carryover - 2017	\$1,158,331	\$59,379	\$1,158,331....	116
Project No:76616917 Common Auxiliary Boiler - 2018	\$6,789,293	\$0	\$6,789,293....	120
Project No:76617016 Common Reconfiguration Engineering - Carryover	\$1,124,217 (..... \$1,065,304)	\$1,124,217....	124	

Project No:76617109 Common Lake Station Switchgear	\$1,114,987	\$0	\$1,114,987	128
Project No:76617317 Common C&D Coal Reclaim System - 2018	\$2,197,444	\$0	\$2,197,444	133
Project No:76617332 Shumway Arroyo Slurry Wall and Water Containment - Carryover - 2017	\$4,183,932	\$0	\$4,183,932	137
Specifics	\$1,887,728	\$0	\$1,887,728	141
Project No:70016108 San Juan Emergent Capitalization Projects	\$1,887,728	\$0	\$1,887,728	142
Totals for Report 31	\$276,030,619 (\$22,126,276)	\$276,030,619		145

Afton

Project No: 70716115 Afton Capital Improvements 2016

Company: 003-Bulk Power
Location: 707 Afton

Project Information

Construction Start Date 1/1/2016 Estimated Completion Date 12/31/2016

List Interim In-Service Dates

Individual Capital Improvement Projects funded under this Project Fund will be placed In Service as appropriate. All Capital Improvement Projects funded under this Project Fund will be completed and In Service prior to December 31, 2016.

Project Need Justification

This project encompass a number of smaller emergent capital improvement projects at Afton in 2016. These capital improvement projects will address emergent safety, regulatory, and/or performance issues to ensure the ongoing safe, compliant, efficient, and reliable operation of the plant. The largest of the identified capital improvement projects (approximately \$500K) is an upgrade of the gas turbine Mark VI turbine, LS2100 starting system and EX2100 excitation control systems to faster and more reliable Mark IVE, LS2100e and EX2100e control systems. Other smaller project needs identified at this time include addition of a water-based fire suppression system to the capital spares warehouse and structural improvements to the air-cooled condenser to address vibration issues.

Project Alternatives

Capital Improvement Projects funded under these funds will be completed only after approval to spend capital to address an emergent need. For each identified project, alternatives will be evaluated on a cost basis and based on each alternative's expected effectiveness at addressing the emergent need.

Technical Aspects

Each capital improvement project will be properly evaluated and engineered to effectively address the emergent need in a cost effective manner. The largest of the identified capital improvement projects is an upgrade of the gas turbine Mark VI, LS2100 and EX2100 control systems to faster and more reliable Mark IVE, LS2100e and EX2100e control systems.

Project Estimate Approach

The overall cost estimate for this project fund was based largely on vendor proposals for the projects scoped to date, i.e., the control system upgrades (\$500K) and warehouse fire suppression system (\$60K). The remainder of the overall cost estimate for this project fund is based on historical estimate of need for capital funds for emergent projects in a typical year. The estimated costs include vendor costs for labor and materials, which varies for each project. For smaller projects of this nature that do not involve significant PNM labor to manage, we typically do not include PNM labor in these cost estimates as this is typically minimal. The vendor selected for each project is the one that can best balance overall project costs with outage duration and mitigation of risk. Page 1

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	70716115	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	6,950			1,000	1,000	0	0	0	0	8,950		
120-Overtime-General	606			0	0	0	0	0	0	606		
350-Material Issues-Major	0			14,000	14,000	0	0	0	0	28,000		
370-Outside Services	520,159			17,000	37,000	155,000	135,000	0	0	864,159		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-1,131	-1,131	0	-2,261		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	578			67	67	0	0	0	0	713		
914-Pension and Benefits Load	1,877			318	318	0	0	0	0	2,512		
915-Injuries and Damages Load	275			32	32	0	0	0	0	339		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	3,506			997	997	0	0	0	0	5,500		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	47,507			2,662	4,326	12,896	11,232	0	0	78,624		
928-AFUDC Debt Reg	11,699			1,495	1,608	189	543	708	0	16,242		
929-AFUDC - Equity Regular	8,865			1,619	1,741	205	588	766	0	13,785		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	602,022			39,190	61,089	168,290	146,232	343	0	1,017,167		
825-Clearings	0			0	-745,584	0	0	-314,865	0	-1,060,449		
Clr Sum	0			0	-745,584	0	0	-314,865	0	-1,060,449		
Proj Net	602,022			39,190	-684,495	168,290	146,232	-314,522	0	-43,282		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	70716115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	8,950	0	0	0	0	0	0	0	0	0	0	0	0	8,950
	120-Overtime-General	606	0	0	0	0	0	0	0	0	0	0	0	0	606
	350-Material Issues-Major	28,000	0	0	0	0	0	0	0	0	0	0	0	0	28,000
	370-Outside Services	864,159	0	0	0	0	0	0	0	0	0	0	0	0	864,159
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,261	0	0	0	0	0	0	0	0	0	0	0	0	-2,261
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	713	0	0	0	0	0	0	0	0	0	0	0	0	713
	914-Pension and Benefits Load	2,512	0	0	0	0	0	0	0	0	0	0	0	0	2,512
	915-Injuries and Damages Load	339	0	0	0	0	0	0	0	0	0	0	0	0	339
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	5,500	0	0	0	0	0	0	0	0	0	0	0	0	5,500
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	78,624	0	0	0	0	0	0	0	0	0	0	0	0	78,624
	928-AFUDC Debt Reg	16,242	0	0	0	0	0	0	0	0	0	0	0	0	16,242
	929-AFUDC - Equity Regular	13,785	0	0	0	0	0	0	0	0	0	0	0	0	13,785
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,017,167	0	0	0	0	0	0	0	0	0	0	0	0	1,017,167
	825-Clearings	-1,060,449	0	0	0	0	0	0	0	0	0	0	0	0	-1,060,449
	Clr Sum	-1,060,449	0	0	0	0	0	0	0	0	0	0	0	0	-1,060,449
	Proj Net	-43,282	0	0	0	0	0	0	0	0	0	0	0	0	-43,282

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	70716115	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	8,950	0	0	0	0	0	0	0	0	0	0	0	0	8,950
	120-Overtime-General	606	0	0	0	0	0	0	0	0	0	0	0	0	606
	350-Material Issues-Major	28,000	0	0	0	0	0	0	0	0	0	0	0	0	28,000
	370-Outside Services	864,159	0	0	0	0	0	0	0	0	0	0	0	0	864,159
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,261	0	0	0	0	0	0	0	0	0	0	0	0	-2,261
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	713	0	0	0	0	0	0	0	0	0	0	0	0	713
	914-Pension and Benefits Load	2,512	0	0	0	0	0	0	0	0	0	0	0	0	2,512
	915-Injuries and Damages Load	339	0	0	0	0	0	0	0	0	0	0	0	0	339
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	5,500	0	0	0	0	0	0	0	0	0	0	0	0	5,500
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	78,624	0	0	0	0	0	0	0	0	0	0	0	0	78,624
	928-AFUDC Debt Reg	16,242	0	0	0	0	0	0	0	0	0	0	0	0	16,242
	929-AFUDC - Equity Regular	13,785	0	0	0	0	0	0	0	0	0	0	0	0	13,785
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,017,167	0	0	0	0	0	0	0	0	0	0	0	0	1,017,167
	825-Clearings	-1,060,449	0	0	0	0	0	0	0	0	0	0	0	0	-1,060,449
	Clr Sum	-1,060,449	0	0	0	0	0	0	0	0	0	0	0	0	-1,060,449
	Proj Net	-43,282	0	0	0	0	0	0	0	0	0	0	0	0	-43,282

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Company: 003-Bulk Power
Location: 707 Afton

<u>Construction Start Date</u>	12/1/2010	<u>Estimated Completion Date</u>
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TBD - In Service dates for each major maintenance activity are based on when these activities are performed. Major maintenance is performed on a prescribed schedule based on gas turbine starts and operating hours. Note that under current operating patterns, Afton is a starts based plant, and thus, the number of starts establishes major maintenance intervals. Currently as of July 2016, upcoming scheduled major maintenance activities to be performed on the Afton gas turbine are estimated to be a Major Inspection in Fall 2017, and Hot Gas Path Inspections in 2022 and 2025.

This project is for required, periodic gas turbine major maintenance at Afton, which includes Hot Gas Path Inspections and Major Inspections, on a prescribed schedule based on gas turbine operating hours and fired starts. The last scheduled major maintenance performed on the Afton gas turbine was in the Fall 2014. As of July 2016, upcoming major maintenance activities to be performed on the Afton gas turbine are estimated to be a Major Inspection in Fall 2017, and Hot Gas Path Inspections in 2022 and 2025.

There is no alternative. In order to ensure reliable and efficient operation for years to come, periodic gas turbine major maintenance, which includes Hot Gas Path Inspections and Major Inspections, must be performed on a prescribed schedule based on gas turbine operating hours and fired starts.

At Afton, Gas Turbine Hot gas path Inspections, which are performed every 900 starts or 24,000 operating hours, whichever occurs first, are 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, are approximately 45 day outages where in addition to the Hot Gas Path Inspection work scope, 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.

The estimated costs for required, periodic major maintenance on the Afton gas turbine is determined based on cost calculations using the number of fired hours and factored starts that the unit will accumulate between major maintenance events. Based on the scope of major maintenance work, the escalated costs are appropriately split 72% capital and 28% O&M.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	70716210	Year	2016	Jul	Aug	Sep	Oct	Nov	Dec	Total
Cost_Type	Bal 6/30/16									
110-Straight Time-General	7,918			0	0	0	0	0	0	7,918
120-Overtime-General	9,080			0	0	0	0	0	0	9,080
350-Material Issues-Major	0			0	0	0	0	0	0	0
370-Outside Services	12,297,311			0	0	0	0	0	0	12,297,311
374-Outside Svcs Legal	0			0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0
610-Expenses - General	0			0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0
807-Non Refundable Contribution	0			0	0	0	0	0	0	0
829-Construction Adjustment	0			0	0	0	0	0	0	0
426-Capitalized Interest	0			0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0
909-Luna AR - Other	0			0	0	0	0	0	0	0
913-Payroll Taxes Load	1,211			0	0	0	0	0	0	1,211
914-Pension and Benefits Load	2,965			0	0	0	0	0	0	2,965
915-Injuries and Damages Load	520			0	0	0	0	0	0	520
918-San Juan AR-Labor	0			0	0	0	0	0	0	0
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0
922-Minor Material Load	0			0	0	0	0	0	0	0
925-E and S Loads	0			0	0	0	0	0	0	0
926-A and G Loads	805,744			0	0	0	0	0	0	805,744
928-AFUDC Debt Reg	10,826			0	0	0	0	0	0	10,826
929-AFUDC - Equity Regular	11,322			0	0	0	0	0	0	11,322
937-San Juan AR - Other	0			0	0	0	0	0	0	0
961-Luna A&G PNMIR D&V	0			0	0	0	0	0	0	0
Cost Sum	13,146,897			0	0	0	0	0	0	13,146,897
825-Clearings	-13,148,251			0	0	0	0	0	0	-13,148,251
Clr Sum	-13,148,251			0	0	0	0	0	0	-13,148,251
Proj Net	-1,353			0	0	0	0	0	0	-1,353

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	70716210	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,918	0	0	0	0	0	0	0	0	0	0	0	0	7,918
	120-Overtime-General	9,080	0	0	0	0	0	0	0	0	0	0	0	0	9,080
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	12,297,311	0	0	0	0	0	0	0	0	0	6,070,000	0	0	18,367,311
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,211	0	0	0	0	0	0	0	0	0	0	0	0	1,211
	914-Pension and Benefits Load	2,965	0	0	0	0	0	0	0	0	0	0	0	0	2,965
	915-Injuries and Damages Load	520	0	0	0	0	0	0	0	0	0	0	0	0	520
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	805,744	0	0	0	0	0	0	0	0	0	407,904	0	0	1,213,648
	928-AFUDC Debt Reg	10,826	0	0	0	0	0	0	0	0	0	8,443	16,937	0	36,206
	929-AFUDC - Equity Regular	11,322	0	0	0	0	0	0	0	0	0	11,074	22,215	0	44,612
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	13,146,897	0	0	0	0	0	0	0	0	0	6,497,421	39,152	0	19,683,470
	825-Clearings	-13,148,251	0	0	0	0	0	0	0	0	0	0	-6,536,573	0	-19,684,823
	Clr Sum	-13,148,251	0	0	0	0	0	0	0	0	0	0	-6,536,573	0	-19,684,823
	Proj Net	-1,353	0	0	0	0	0	0	0	0	0	6,497,421	-6,497,421	0	-1,353

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	70716210	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,918	0	0	0	0	0	0	0	0	0	0	0	0	7,918
	120-Overtime-General	9,080	0	0	0	0	0	0	0	0	0	0	0	0	9,080
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	18,367,311	0	0	0	0	0	0	0	0	0	0	0	0	18,367,311
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,211	0	0	0	0	0	0	0	0	0	0	0	0	1,211
	914-Pension and Benefits Load	2,965	0	0	0	0	0	0	0	0	0	0	0	0	2,965
	915-Injuries and Damages Load	520	0	0	0	0	0	0	0	0	0	0	0	0	520
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	1,213,648	0	0	0	0	0	0	0	0	0	0	0	0	1,213,648
	928-AFUDC Debt Reg	36,206	0	0	0	0	0	0	0	0	0	0	0	0	36,206
	929-AFUDC - Equity Regular	44,612	0	0	0	0	0	0	0	0	0	0	0	0	44,612
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	19,683,470	0	0	0	0	0	0	0	0	0	0	0	0	19,683,470
	825-Clearings	-19,684,823	0	0	0	0	0	0	0	0	0	0	0	0	-19,684,823
	Clr Sum	-19,684,823	0	0	0	0	0	0	0	0	0	0	0	0	-19,684,823
Proj Net		-1,353	0	0	0	0	0	0	0	0	0	0	0	0	-1,353

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Bulk Power Building Alloc

Project No: 35730615 Generation Building Improvements

Company: 003-Bulk Power
Location: 357 Bulk Power Building Allocation

Project Information

Construction Start Date 7/1/2017 Estimated Completion Date 9/30/2019

List Interim In-Service Dates

0

Project Need Justification

This is an annual funding blanket for updating the generation buildings and various other system improvements. More specifically, this project will be used for security equipment upgrades at the San Juan Generating Station by installing new gates and fencing. Currently, any person or vehicle that passes through the south gate guard station when it is unmanned has free access to the entire plant property. Increasing security will require modification to the entrance of the plant to include bollards, card readers, call boxes, and trenching for power and network connectivity. Additional barriers are need inside the plant to restrict access to the road leading to the substation itself address gaps in security perimeter due to damage. The scope of the project may include other identified security issues such as: additional and/or replacement cameras, access control upgrades, upgrading or replacing the video management system, yard improvements to deter theft, and security alarm systems. The improvements and scope will be determined by the Corporate Security supervisor and team, the General Services manager, and qualified external vendors.

Project Alternatives

The alternative is to make equipment repairs as breakdowns occur. This expense would be paid from limited O&M budget funds instead of a capital project such as this one. It is possible that eventually the equipment or system would be unrepairable and would still require replacement in the future. Once the scope has been identified for a particular year, alternatives will be considered.

Technical Aspects

The technical aspects of the work will be identified when the scope of work has been determined.

Project Estimate Approach

Estimate is based on vendor supplied quotes and installation contractor estimates. These quotes/estimates were reviewed by PNM subject matter experts and compared to quotes for similar work that has been done or is currently ongoing at PNM. After this review, the vendor(s) that provide estimates that address the scope of this project and that are in line with past expenditures are selected. At the time each project is identified and approved for Capital funding, the Building Maintenance Supervisor will work with the General Services Manager and Sourcing Analyst to solicit bids from qualified vendors. The bids will be evaluated and awarded at that time.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	35730615	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	45,165	45,165	45,165	0	135,495		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-344	-344	-344	-1,033		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	3,758	3,758	3,758	0	11,273		
928-AFUDC Debt Reg	0			0	0	55	165	276	331	827		
929-AFUDC - Equity Regular	0			0	0	60	179	298	359	896		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	49,038	48,923	49,152	346	147,458		
825-Clearings	0			0	0	0	0	0	-147,458	-147,458		
Clr Sum	0			0	0	0	0	0	-147,458	-147,458		
Proj Net	0			0	0	49,038	48,923	49,152	-147,113	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	35730615	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	135,495	0	0	0	0	0	50,000	0	0	0	0	0	0	185,495
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-1,033	0	0	0	0	0	0	0	0	0	0	0	0	-1,033
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	11,273	0	0	0	0	0	3,360	0	0	0	0	0	0	14,633
	928-AFUDC Debt Reg	827	0	0	0	0	0	70	140	0	0	0	0	0	1,036
	929-AFUDC - Equity Regular	896	0	0	0	0	0	91	183	0	0	0	0	0	1,170
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	147,458	0	0	0	0	0	53,521	323	0	0	0	0	0	201,302
	825-Clearings	-147,458	0	0	0	0	0	0	-53,843	0	0	0	0	0	-201,302
	Clr Sum	-147,458	0	0	0	0	0	0	-53,843	0	0	0	0	0	-201,302
	Proj Net	0	0	0	0	0	0	53,521	-53,521	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	35730615	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	185,495	0	0	200,000	250,000	50,000	50,000	0	0	0	0	0	0	735,495
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-1,033	0	0	0	0	0	0	0	0	0	0	0	0	-1,033
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	14,633	0	0	13,440	16,800	3,360	3,360	0	0	0	0	0	0	51,593
	928-AFUDC Debt Reg	1,036	0	0	279	907	1,330	1,476	1,553	0	0	0	0	0	6,580
	929-AFUDC - Equity Regular	1,170	0	0	251	818	1,199	1,330	1,400	0	0	0	0	0	6,168
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	201,302	0	0	213,970	268,525	55,888	56,166	2,952	0	0	0	0	0	798,803
	825-Clearings	-201,302	0	0	0	0	0	0	-597,501	0	0	0	0	0	-798,803
	Clr Sum	-201,302	0	0	0	0	0	0	-597,501	0	0	0	0	0	-798,803
	Proj Net	0	0	0	213,970	268,525	55,888	56,166	-594,549	0	0	0	0	0	0

Four Corners

Project No: 71519017 Four Corners Facility Improvements

Company: 003-Bulk Power
Location: 715 Four Corners

Project Information

<u>Construction Start Date</u>	1/1/2017	<u>Estimated Completion Date</u>
<u>List Interim In-Service Dates</u>		

Interim in service dates will be based on each individual project's completion.

Project Need Justification

Four Corners Generating station has multiple projects for the budget cycle years focused on required safety installations, North American Energy Reliability Corporation (NERC) and environmental compliance, improving unit reliability, and reducing overall maintenance cost. Each project is reviewed, deliberated and approved by the respective committees prior to implementation to ensure the projects are viable to proceed. As many projects require a scheduled outage to execute, capital spend is higher in the years of 2017-2018. Key contractually obligated projects include generator rewinds, boiler component replacements, ash handling replacement and process changes, and baghouse component replacements.

Project Alternatives

Project alternatives are weighed on each individual project to ensure viability of the project to reduce safety hazards for the station, ensure compliance is maintained, or that the benefits of the project in terms of reliability or cost reductions justify the project.

Technical Aspects

Items included in this series of projects include: -coal silo wall replacement-coal handling controls replacement-coal dust elimination-electrical breaker replacement-SO2 (sulfur dioxide) absorber cell upgrades-ash impoundment construction and closure-NOx (nitrogen oxide) compliance planning-SO2 CEMS (continuous emissions monitoring system) and fabric filter bag replacements-high energy valve replacement-low pressure generator hydrogen cooler replacement-low pressure and high pressure generator station and field rewinds-low pressure turbine overhaul-boiler economizer replacement

Project Estimate Approach

All project estimates are provided by Arizona Public Service (APS). APS capital projects group utilizes a third party engineering firm to develop detailed costs estimates for each project. Projects are estimated based on the previous costs of similar projects, budgetary estimates from vendor and contractors, and from engineering and project manager review. Cost reflected here are for PNM's portion.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	71519017	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	71519017	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	197,600	238,940	293,020	177,320	448,110	342,290	191,360	675,870	1,406,600	1,274,260	1,961,830	1,631,760	8,838,960
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	1,620	1,959	2,403	1,454	3,675	2,807	1,569	5,542	11,534	10,449	16,087	13,380	72,479
	928-AFUDC Debt Reg	0	260	819	1,489	2,060	2,825	3,777	4,374	5,400	7,979	11,254	15,184	19,462	74,883
	929-AFUDC - Equity Regular	0	341	1,075	1,953	2,701	3,705	4,955	5,737	7,083	10,466	14,761	19,917	25,528	98,222
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	199,821	242,793	298,865	183,535	458,314	353,829	203,040	693,896	1,436,580	1,310,724	2,013,018	1,690,130	9,084,544
	825-Clearings	0	-5,995	-13,099	-21,672	-26,527	-39,481	-48,911	-53,535	-72,746	-113,661	-149,573	-205,476	-7,500,481	-8,251,157
	Clr Sum	0	-5,995	-13,099	-21,672	-26,527	-39,481	-48,911	-53,535	-72,746	-113,661	-149,573	-205,476	-7,500,481	-8,251,157
	Proj Net	0	193,826	229,694	277,193	157,007	418,833	304,917	149,505	621,149	1,322,919	1,161,151	1,807,541	-5,810,350	833,387

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	71519017	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	8,838,960	629,009	360,222	360,222	360,222	5,137,889	282,672	794,404	720,686	360,222	360,222	360,222	360,222	18,925,173
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	72,479	5,158	2,954	2,954	2,954	42,131	2,318	6,514	5,910	2,954	2,954	2,954	2,954	155,186
	928-AFUDC Debt Reg	74,883	3,004	4,168	4,950	5,705	12,723	1,350	2,601	4,243	5,166	5,573	5,942	6,275	136,584
	929-AFUDC - Equity Regular	98,222	2,708	3,757	4,462	5,143	11,469	1,217	2,345	3,825	4,657	5,024	5,356	5,657	153,842
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	9,084,544	639,880	371,100	372,589	374,024	5,204,213	287,556	805,864	734,664	372,998	373,773	374,474	375,108	19,370,786
	825-Clearings	-8,251,157	-58,931	-71,417	-83,464	-95,087	-7,111,979	-66,187	-140,155	-199,606	-216,945	-232,628	-246,812	-259,642	-17,034,010
	Clr Sum	-8,251,157	-58,931	-71,417	-83,464	-95,087	-7,111,979	-66,187	-140,155	-199,606	-216,945	-232,628	-246,812	-259,642	-17,034,010
	Proj Net	833,387	580,949	299,683	289,124	278,938	-1,907,766	221,369	665,709	535,058	156,053	141,145	127,661	115,466	2,336,776

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Project No: 71519210 Four Corners Facility Improvement

Company: 003-Bulk Power
Location: 715 Four Corners

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date

List Interim In-Service Dates

In-Service dates are individual project dependent and scheduled throughout the calendar year. Monthly updates are provided by APS to ensure we maintain in-service dates up to date.

Project Need Justification

As the operator of Four Corners, Arizona Public Service (APS) identifies capital projects that could fall into one of following categories: Safety, Environmental, Regulatory, Strategic, Reliability. At the time a project is identified, the project is assigned to a budget category. APS' Plant, Finance, and Projects departments work together to assign the category. Projects that fall under a specific safety regulation (i.e. OHSA), code or standard (i.e. Boiler Code, National Fire Protection Association [NFPA]), or that post an obvious risk to personnel or equipment, are classified as Safety (examples may include safety access platforms or electrical arc protection). Projects that fall under a specific environmental regulation (i.e. Clean Air Act [CAA], Mercury and Air Toxic Standards [MATS], and Coal Combustion Residuals [CCR]) or the project is related to an environmental system (i.e. Baghouse, Scrubber, Ponds) are classified as Environmental (examples may include baghouse bag replacements or improvements to the sulfur scrubber controls). Projects that fall under a specific regulation (i.e. Critical infrastructure Protection [CIP], State Laws) are classified as Regulatory. Projects that have O&M savings or Equivalent Availability Factor (EAF) impact are classified as Reliability (examples may include equipment such as pump, compressor or other equipment replacements). Projects related to Cultural, Community, Facilities, IT and Communications are classified as Strategic. The System Health process is conducted by APS by breaking down its plants into many different process areas and systems. These process areas are assigned to subject matter experts (SME) or process teams who act as the system health experts. The SME/team has the responsibility to evaluate system health for these process areas based on equipment condition and performance parameters. The SME/team reviews and evaluates system issues including equipment reliability issues, forced outage related information, corrective maintenance history, work order backlog, vendor bulletins, etc. and assigns a system health color (Green, White, Yellow or Red) to the system. Systems or process areas with yellow or red colors require a system health plan to move the system back to white or green. The plan may include a capital project to address the system health. Full evaluations occur once a year. System colors and plans are evaluates at least quarterly by the Plant Health Committee. This project is to address some of the capital project needs identified as part of the System Health Process.

Project Alternatives

Numerous alternatives are considered on a project by project basis which are recorded in individual project request documentation. The APS Capital Project process can be referenced for project alternatives evaluations. Often times, large scale projects will be preceded by an engineering study that typically outlines the number of alternatives and benefits/costs of the various alternatives.

Technical Aspects

Examples of projects from each category include: Safety 1) Coal Silo Wall Replacement 2) High Energy Valve Replacement Environmental Compliance 1) Baghouse Bags replacements 2) Scrubber Outlook Duct Liner replacement 3) Baghouse Fly Ash Removal Controls upgrades 4) Plant Perimeter Security Upgrade 5) Coal Burner Replacements.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

High dollar projects related to operational reliability (driven by the system review assessment process) 1) Generator Step-up Centerphase Replacement 2) Main Air Compressor Replacement 3) LP Field Rewind and Generator Rewedge 4) Boiler Tube Bundle Replacement 5) Air Heater Basket Replacement 6) UPS Power Supply upgrade 7) Fan Rotor Replacement 8) Feedwater Heater Replacement.

Project Estimate Approach

Projects are estimated by APS Capital projects group by utilizing an independent third party engineering firm. The APS Engineering Service Provider (ESP) has a team of engineers/resources who develops project scopes, cost estimates and milestone schedules for new projects or projects in the Long Range Forecast (LRF). The ESP works with the plant project sponsors, subject matter experts and APS Projects department to develop the cost estimates using the ESP's vast experience, expertise and project database. The ESP also works with the APS Maintenance and Modification Contractor (MMC) to develop construction cost estimates for the new projects. Below is an estimated average of project estimate breakdown by cost category.

Engineering - 20%, Materials - 20%, Construction - 40%, Travel - 2%, Loads (Direct/OH) - 13%, Taxes - 5%

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	71519210	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	42,108,852			1,096,454	360,337	1,145,277	1,026,673	953,353	618,993	47,309,939		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-58,075	-58,075	-58,075	-174,224		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	337,534			8,991	2,955	9,391	8,419	7,817	5,076	380,183		
928-AFUDC Debt Reg	612,417			30,349	31,512	27,646	27,881	29,956	28,579	788,340		
929-AFUDC - Equity Regular	670,166			32,866	34,126	29,940	30,194	32,441	30,950	860,684		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNM D&V	0			0	0	0	0	0	0	0		
Cost Sum	43,728,970			1,168,660	428,929	1,212,254	1,035,093	965,494	625,523	49,164,921		
825-Clearings	-30,831,138			-281,606	-2,539,633	-1,019,120	-77,497	-1,408,031	-696,662	-36,853,688		
Clr Sum	-30,831,138			-281,606	-2,539,633	-1,019,120	-77,497	-1,408,031	-696,662	-36,853,688		
Proj Net	12,897,831			887,054	-2,110,704	193,133	957,595	-442,537	-71,139	12,311,233		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	71519210	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	47,309,939	1,073,280	365,820	1,098,760	1,183,650	143,390	603,070	2,734,290	416,390	1,155,830	860,730	1,120,080	1,087,710	59,152,939
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-174,224	-74,482	-74,482	0	0	0	0	0	0	0	0	0	0	-323,188
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	380,183	8,801	3,000	9,010	9,706	1,176	4,945	22,421	3,414	9,478	7,058	9,185	8,919	477,295
	928-AFUDC Debt Reg	788,340	33,440	35,251	37,252	40,464	42,451	39,184	43,805	47,685	50,038	51,200	54,112	57,339	1,320,562
	929-AFUDC - Equity Regular	860,684	43,863	46,238	48,862	53,075	55,682	51,396	57,458	62,547	65,634	67,158	70,977	75,210	1,558,784
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	49,164,921	1,084,902	375,827	1,193,884	1,286,895	242,699	698,595	2,857,975	530,037	1,280,980	986,147	1,254,353	1,229,178	62,186,392
	825-Clearings	-36,853,688	-33,525	-15,127	-4,479	0	-1,727,894	0	-201,133	0	-686,367	0	0	-7,540,435	-47,062,648
	Clr Sum	-36,853,688	-33,525	-15,127	-4,479	0	-1,727,894	0	-201,133	0	-686,367	0	0	-7,540,435	-47,062,648
	Proj Net	12,311,233	1,051,377	360,700	1,189,404	1,286,895	-1,485,195	698,595	2,656,842	530,037	594,613	986,147	1,254,353	-6,311,257	15,123,744

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	71519210	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	59,152,939	791,704	0	0	0	6,466,821	355,786	999,879	907,094	0	0	0	0	68,674,224
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-323,188	0	0	0	0	0	0	0	0	0	0	0	0	-323,188
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	477,295	6,492	0	0	0	53,028	2,917	8,199	7,438	0	0	0	0	555,370
	928-AFUDC Debt Reg	1,320,562	40,574	38,681	38,873	39,067	47,774	30,426	30,872	29,331	26,837	13,485	6,776	3,405	1,666,664
	929-AFUDC - Equity Regular	1,558,784	36,575	34,869	35,042	35,216	43,065	27,428	27,829	26,440	24,192	12,156	6,108	3,069	1,870,775
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	62,186,392	875,345	73,551	73,916	74,283	6,610,688	416,557	1,066,779	970,304	51,029	25,641	12,884	6,474	72,443,844
	825-Clearings	-47,062,648	-1,200,968	0	0	0	-10,172,859	-570,628	-1,609,950	-1,468,073	-5,163,770	-2,594,706	-1,303,795	-655,135	-71,802,531
	Clr Sum	-47,062,648	-1,200,968	0	0	0	-10,172,859	-570,628	-1,609,950	-1,468,073	-5,163,770	-2,594,706	-1,303,795	-655,135	-71,802,531
	Proj Net	15,123,744	-325,623	73,551	73,916	74,283	-3,562,170	-154,070	-543,171	-497,769	-5,112,741	-2,569,064	-1,290,911	-648,660	641,313

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Project No: 71522912 FC SCR U4U5 \$90,127,475 \$0 \$90,127,475

Company: 003-Bulk Power
Location: 715 Four Corners

Project Information

Construction Start Date 11/1/2012 Estimated Completion Date 12/31/2018

List Interim In-Service Dates

0

Project Need Justification

The FCPP is a critical baseload plant in PNM’s generating portfolio. Arizona Public Service (APS) is the majority owner and operator while PNM’s ownership share is 13% of Unit 4, and 13% of Unit 5. Unit 4 and Unit 5 of the FCPP each have a rated capacity of 750 MW totaling 1500 MW. PNM’s prorated share of the 1500 MW is 195 MW, which is currently used as a baseload resource to serve our New Mexico customers. FCPP is required to comply with the Regional Haze BART requirements of the CAA. To comply with these requirements, the owners of the FCPP decided to execute an option from the Federal Implementation Plan (FIP) which directed the shutdown of Units 1, 2 and 3, and the installation of Selective Catalytic Reduction (SCR) technology on Units 4 and 5. To date and per the FIP, Units 1, 2 and 3 have been shut down while Units 4 and 5 are being readied for SCR installation.

Project Alternatives

The installation of SCRs is a mandatory legal requirement under the EPA Regional Haze Rule for continued operation of Four Corners and that there are no compliance alternatives

Technical Aspects

The scope of the project includes the design, procurement, construction, commissioning and testing of SCR technology onto Four Corners Unit 4 and Unit 5.

Project Estimate Approach

To manage the FCPP SCR Project, APS has selected AECOM (formally URS) as the EPC contractor. AECOM is projecting that installation of SCR technology on Unit 5 will be completed by December 19, 2017, and Unit 4 by April 24, 2018. This schedule meets the implementation due dates set by the EPA of March 31, 2018 for Unit 5 and July 31, 2018 for Unit 4. AECOM projects the total cost for the design, procurement, construction, commissioning and testing of SCRs on Unit 4 and Unit 5 to be \$635M. PNM’s prorated share of these construction costs is \$82.55M. PNM’s share of the total cost of the FCPP Project, including AFUDC and A&G, will be \$91.98M.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	71522912	Year	2016										
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total			
110-Straight Time-General	930			0	0	0	0	0	0	930			
120-Overtime-General	0			0	0	0	0	0	0	0			
350-Material Issues-Major	0			0	0	0	0	0	0	0			
370-Outside Services	0			0	0	0	0	0	0	0			
374-Outside Svcs Legal	0			0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	28,425,089			2,806,885	2,909,660	2,913,300	2,503,410	2,319,460	2,158,390	44,036,193			
530-Employee Expense	0			0	0	0	0	0	0	0			
610-Expenses - General	0			0	0	0	0	0	0	0			
805-Land and Land Rights	0			0	0	0	0	0	0	0			
807-Non Refundable Contribution	0			0	0	0	0	0	0	0			
829-Construction Adjustment	0			0	0	0	0	0	0	0			
426-Capitalized Interest	0			0	0	0	0	0	0	0			
908-Luna AR - Labor	0			0	0	0	0	0	0	0			
909-Luna AR - Other	0			0	0	0	0	0	0	0			
913-Payroll Taxes Load	72			0	0	0	0	0	0	72			
914-Pension and Benefits Load	339			0	0	0	0	0	0	339			
915-Injuries and Damages Load	34			0	0	0	0	0	0	34			
918-San Juan AR-Labor	0			0	0	0	0	0	0	0			
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0			
922-Minor Material Load	0			0	0	0	0	0	0	0			
925-E and S Loads	0			0	0	0	0	0	0	0			
926-A and G Loads	233,095			23,016	23,859	23,889	20,528	19,020	17,699	361,106			
928-AFUDC Debt Reg	320,273			68,938	75,757	82,729	89,272	95,171	100,705	832,844			
929-AFUDC - Equity Regular	189,754			74,657	82,042	89,592	96,678	103,066	109,060	744,849			
937-San Juan AR - Other	0			0	0	0	0	0	0	0			
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0			
Cost Sum	29,169,586			2,973,496	3,091,318	3,109,510	2,709,888	2,536,717	2,385,855	45,976,368			
825-Clearings	0			0	0	0	0	0	0	0			
Clr Sum	0			0	0	0	0	0	0	0			
Proj Net	29,169,586			2,973,496	3,091,318	3,109,510	2,709,888	2,536,717	2,385,855	45,976,368			

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	71522912	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	930	0	0	0	0	0	0	0	0	0	0	0	0	930
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	44,036,193	2,197,910	2,207,530	2,924,610	2,246,920	3,245,710	2,733,120	1,983,540	1,829,100	2,667,340	2,555,020	2,463,240	3,277,560	74,367,793
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	72	0	0	0	0	0	0	0	0	0	0	0	0	72
	914-Pension and Benefits Load	339	0	0	0	0	0	0	0	0	0	0	0	0	339
	915-Injuries and Damages Load	34	0	0	0	0	0	0	0	0	0	0	0	0	34
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	361,106	18,023	18,102	23,982	18,425	26,615	22,412	16,265	14,999	21,872	20,951	20,199	26,876	609,825
	928-AFUDC Debt Reg	832,844	122,733	129,261	136,784	144,404	152,491	161,266	168,436	174,461	181,420	189,376	197,111	205,842	2,796,429
	929-AFUDC - Equity Regular	744,849	160,985	169,548	179,415	189,410	200,018	211,528	220,932	228,835	237,964	248,399	258,545	269,997	3,320,425
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	45,976,368	2,499,651	2,524,441	3,264,791	2,599,158	3,624,834	3,128,326	2,389,173	2,247,394	3,108,596	3,013,745	2,939,094	3,780,275	81,095,849
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-44,602,793	-44,602,793
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-44,602,793	-44,602,793
	Proj Net	45,976,368	2,499,651	2,524,441	3,264,791	2,599,158	3,624,834	3,128,326	2,389,173	2,247,394	3,108,596	3,013,745	2,939,094	-40,822,518	36,493,056

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	71522912	Year	2018												Total
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
110-Straight Time-General	930	0	0	0	0	0	0	0	0	0	0	0	0	0	930
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	74,367,793	2,039,276	2,039,276	2,039,276	2,039,276	0	0	0	0	0	0	0	0	0	82,524,898
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	72	0	0	0	0	0	0	0	0	0	0	0	0	0	72
914-Pension and Benefits Load	339	0	0	0	0	0	0	0	0	0	0	0	0	0	339
915-Injuries and Damages Load	34	0	0	0	0	0	0	0	0	0	0	0	0	0	34
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads	609,825	16,722	16,722	16,722	16,722	0	0	0	0	0	0	0	0	0	676,713
928-AFUDC Debt Reg	2,796,429	97,987	103,438	108,894	114,356	0	0	0	0	0	0	0	0	0	3,221,104
929-AFUDC - Equity Regular	3,320,425	88,329	93,243	98,162	103,085	0	0	0	0	0	0	0	0	0	3,703,245
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	81,095,849	2,242,314	2,252,680	2,263,054	2,273,439	0	0	0	0	0	0	0	0	0	90,127,336
825-Clearings	-44,602,793	-154,942	-163,333	-171,732	-45,034,675	0	0	0	0	0	0	0	0	0	-90,127,475
Cir Sum	-44,602,793	-154,942	-163,333	-171,732	-45,034,675	0	0	0	0	0	0	0	0	0	-90,127,475
Proj Net	36,493,056	2,087,372	2,089,347	2,091,323	-42,761,236	0	0	0	0	0	0	0	0	0	-139

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Luna

Project No: 74416115 Luna Capital Improvements 2016

Company: 003-Bulk Power
Location: 744 Luna

Project Information

Construction Start Date 1/1/2016 Estimated Completion Date 12/31/2016

List Interim In-Service Dates

Individual Capital Improvement Projects funded under this Project Fund will be placed In Service as appropriate. All Capital Improvement Projects funded under this Project Fund will be completed and In Service prior to December 31, 2016.

Project Need Justification

This project includes funds for materials and external labor to address smaller emergent capital improvement projects at Luna in 2016. The need for these projects are to perform improvements related to emergent safety, regulatory and/or performance issues. By performing these projects, PNM will ensure the ongoing safe, compliant, efficient, and reliable operation of the plant. The projects currently in scope focus on improvements to the cooling tower and its systems to ensure unit availability. These improvements include upgraded impellers for the circulating water pumps, replacement of deteriorating lamella fill, and replacement of structural members.

Project Alternatives

Alternatives are not immediately apparent. The capital improvements funded under this project will be completed only after attaining the approval to spend capital to address an emergent need. For each identified project, alternatives will be evaluated on a cost basis and the expected effectiveness of each alternative to resolve the emergent need/issue.

Technical Aspects

Each project to be funded will be properly evaluated and engineered to effectively address an emergent need in a cost effective manner. The projects currently in scope to be funded focus on improvements to the cooling tower and its systems to ensure unit availability. These improvements include upgraded impellers for the circulating water pumps, replacement of deteriorating lamella fill, and replacement of structural members.

Project Estimate Approach

The estimated costs for this project are the sum of the individual costs for each of the capital improvements approved by the Luna Engineering and Operations Committee (the Luna Owners, of which PNM is a 1/3 Owner) in this project. The major cost categories for each capital improvement include costs for materials, 3rd-party engineering design services, and 3rd-party labor. The cost estimates for each capital improvement are prepared by NAES, the 3rd-party operator at Luna, and are submitted to the Luna Engineering and Operations Committee for review. Only upon approval by the Luna Engineering and Operations Committee are the individual capital improvements approved for funding and execution under this project.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	74416115	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	1,343,376			0	158,000	182,000	0	505,000	0	2,188,376		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	-895,494			0	-105,323	-121,321	0	-336,633	0	-1,458,771		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	3,854			1,219	1,289	1,433	0	206	412	8,413		
929-AFUDC - Equity Regular	2,019			1,320	1,396	1,552	0	223	446	6,956		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	37,212			0	4,377	5,041	0	13,989	0	60,618		
Cost Sum	490,966			2,539	59,739	68,706	0	182,784	858	805,591		
825-Clearings	0			0	0	-671,787	0	0	-183,642	-855,428		
Clr Sum	0			0	0	-671,787	0	0	-183,642	-855,428		
Proj Net	490,966			2,539	59,739	-603,081	0	182,784	-182,784	-49,837		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	74416115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	2,188,376	0	0	0	0	0	0	0	0	0	0	0	0	2,188,376
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	-1,458,771	0	0	0	0	0	0	0	0	0	0	0	0	-1,458,771
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	8,413	0	0	0	0	0	0	0	0	0	0	0	0	8,413
	929-AFUDC - Equity Regular	6,956	0	0	0	0	0	0	0	0	0	0	0	0	6,956
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	60,618	0	0	0	0	0	0	0	0	0	0	0	0	60,618
	Cost Sum	805,591	0	0	0	0	0	0	0	0	0	0	0	0	805,591
	825-Clearings	-855,428	0	0	0	0	0	0	0	0	0	0	0	0	-855,428
	Cir Sum	-855,428	0	0	0	0	0	0	0	0	0	0	0	0	-855,428
Proj Net		-49,837	0	0	0	0	0	0	0	0	0	0	0	0	-49,837

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	74416115	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	2,188,376	0	0	0	0	0	0	0	0	0	0	0	0	2,188,376
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	-1,458,771	0	0	0	0	0	0	0	0	0	0	0	0	-1,458,771
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	8,413	0	0	0	0	0	0	0	0	0	0	0	0	8,413
	929-AFUDC - Equity Regular	6,956	0	0	0	0	0	0	0	0	0	0	0	0	6,956
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	60,618	0	0	0	0	0	0	0	0	0	0	0	0	60,618
	Cost Sum	805,591	0	0	0	0	0	0	0	0	0	0	0	0	805,591
	825-Clearings	-855,428	0	0	0	0	0	0	0	0	0	0	0	0	-855,428
	Clr Sum	-855,428	0	0	0	0	0	0	0	0	0	0	0	0	-855,428
	Proj Net	-49,837	0	0	0	0	0	0	0	0	0	0	0	0	-49,837

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Project No: 74416215 Luna Capital Improvements 2017

Company: 003-Bulk Power
Location: 744 Luna

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date 12/31/2017

List Interim In-Service Dates

Individual projects will be placed in service as appropriate. All projects will be completed and in service prior to December 31, 2017.

Project Need Justification

This project will fund various minor emergent capital improvement projects at Luna in 2017. Such capital improvement projects will address emergent safety, regulatory and performance issues to assure ongoing compliant, efficient and reliable operation of the plant. Projects to be completed under this fund in 2017 include cooling tower structural upgrades, Mark VI control system interface upgrades, upgrades to the gas turbine controls for primary frequency response, replacement of NOx analyzers, replacement of programmable logic controllers, and upgrades to plant structures to improve access to equipment and personnel safety. This project is contractually obligated.

Project Alternatives

Capital improvement projects funded under this project will be completed only after approval to spend capital to address an emergent need. For each identified project, alternatives will be evaluated on a cost basis and based on each alternative's expected effectiveness at addressing the emergent need. No other alternatives are available, as this project is contractually obligated.

Technical Aspects

Each capital improvement project will be properly evaluated and engineered to effectively address an emergent need in a cost effective manner. Specific work will include cooling tower structural upgrades, Mark VI control system interface upgrades, upgrades to the gas turbine controls for primary frequency response, replacement of NOx analyzers, replacement of programmable logic controllers, and upgrades to plant structures.

Project Estimate Approach

The estimated costs for this project are the sum of the individual costs for each of the capital improvements approved by the Luna Engineering and Operations Committee (the Luna Owners, of which PNM is a 1/3 Owner) in this project. The major cost categories for each capital improvement include costs for materials, 3rd-party engineering design services, and 3rd-party labor. The cost estimates for each capital improvement are prepared by NAES, the 3rd-party operator at Luna, and are submitted to the Luna Engineering and Operations Committee for review. Only upon approval by the Luna Engineering and Operations Committee are the individual capital improvements approved for funding and execution under this project.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	74416215	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Cir Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	74416215	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
370-Outside Services	0	116,000	791,500	653,690	0	160,000	0	46,000	0	92,500	866,190	0	0	2,725,880
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0	-77,326	-527,614	-435,750	0	-106,656	0	-30,664	0	-61,661	-577,402	0	0	-1,817,072
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
928-AFUDC Debt Reg	0	54	480	306	614	693	0	22	0	43	493	902	0	3,607
929-AFUDC - Equity Regular	0	71	629	402	806	909	0	28	0	57	646	1,182	0	4,731
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	0	3,023	20,626	17,035	0	4,170	0	1,199	0	2,411	22,573	0	0	71,036
Cost Sum	0	41,823	285,622	235,683	1,420	59,116	0	16,585	0	33,350	312,500	2,084	0	988,183
825-Clearings	0	0	-327,445	0	0	-296,219	0	-16,585	0	0	0	-347,934	0	-988,183
Clr Sum	0	0	-327,445	0	0	-296,219	0	-16,585	0	0	0	-347,934	0	-988,183
Proj Net	0	41,823	-41,823	235,683	1,420	-237,104	0	0	0	33,350	312,500	-345,850	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	74416215	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	2,725,880	0	0	0	0	0	0	0	0	0	0	0	0	2,725,880
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	-1,817,072	0	0	0	0	0	0	0	0	0	0	0	0	-1,817,072
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	3,607	0	0	0	0	0	0	0	0	0	0	0	0	3,607
	929-AFUDC - Equity Regular	4,731	0	0	0	0	0	0	0	0	0	0	0	0	4,731
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	71,036	0	0	0	0	0	0	0	0	0	0	0	0	71,036
	Cost Sum	988,183	0	0	0	0	0	0	0	0	0	0	0	0	988,183
	825-Clearings	-988,183	0	0	0	0	0	0	0	0	0	0	0	0	-988,183
	Clr Sum	-988,183	0	0	0	0	0	0	0	0	0	0	0	0	-988,183
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project No: 74417010 Luna Gas Turbine Major Outages

Company: 003-Bulk Power
Location: 744 Luna

Project Information

Construction Start Date 1/1/2014 Estimated Completion Date 12/1/2018

List Interim In-Service Dates

TBD - In Service dates for each major maintenance activity based on when these activities are performed. Major maintenance is performed on a prescribed schedule based on gas turbine starts and operating hours. Note that under current operating patterns, Luna is a starts based plant, and thus, the number of starts establishes major maintenance intervals. Upcoming major maintenance activities to be performed are Hot Gas Path Inspections on U2 and U1 gas turbines in Spring and Fall 2018, respectively, and a steam turbine Major Inspection in Fall 2018.

Project Need Justification

This Project Fund is for required periodic major maintenance on the Luna gas turbines and steam turbine, which includes Hot Gas Path Inspections and Major Inspections on the gas turbines, as well as steam turbine Major Inspections, on a prescribed schedule based on gas turbine operating hours and fired starts. Upcoming major maintenance activities to be performed are Hot Gas Path Inspections on U2 and U1 gas turbines in Spring and Fall 2018, respectively, and a steam turbine Major Inspection in Fall 2018.

Project Alternatives

In order to ensure reliable and efficient operation for years to come, periodic gas turbine and steam turbine major maintenance, which includes Hot Gas Path Inspections and Major Inspections on the gas turbines and Major Inspections on the steam turbine, must be performed on a prescribed schedule based on gas turbine operating hours and fired starts. There is no alternative.

Technical Aspects

At Luna, Gas Turbine Major Inspections, which are performed every 2,700 starts or 72,000 operating hours, whichever occurs first, are approximately 45 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, 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. The Steam Turbine Major Inspection work scope, performed during the Gas Turbine Major Inspection, includes an open/clean/close on the turbine, steam valve refurbishment, and generator inspection and testing.

Project Estimate Approach

The estimated base costs for required, periodic major maintenance on the Luna gas and steam turbines are determined based on cost calculations using the number of fired hours and factored starts that each unit will accumulate between major maintenance events. The base costs are then escalated using future year estimates for the applicable US Bureau of Labor Statistics indices used to calculate escalated costs, as described under "Alternate Escalation Assumptions". Based on the scope of major maintenance work, the escalated costs are appropriately split 72% capital and 28% O&M. Finally, since this is a joint-owned facility, these costs are further split approximately equally among the three owners.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	74417010	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	6,699,253			0	0	0	0	0	0	6,699,253		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	-4,495,642			0	0	0	0	0	0	-4,495,642		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	44,885			0	0	0	0	0	0	44,885		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	54,361			0	0	0	0	0	0	54,361		
929-AFUDC - Equity Regular	41,682			0	0	0	0	0	0	41,682		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	122,596			0	0	0	0	0	0	122,596		
Cost Sum	2,467,134			0	0	0	0	0	0	2,467,134		
825-Clearings	-2,467,134			0	0	0	0	0	0	-2,467,134		
Clr Sum	-2,467,134			0	0	0	0	0	0	-2,467,134		
Proj Net	0			0	0	0	0	0	0	0		

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	74417010	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	6,699,253	0	0	0	0	0	0	0	0	0	0	0	0	6,699,253
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	-4,495,642	0	0	0	0	0	0	0	0	0	0	0	0	-4,495,642
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	44,885	0	0	0	0	0	0	0	0	0	0	0	0	44,885
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	54,361	0	0	0	0	0	0	0	0	0	0	0	0	54,361
	929-AFUDC - Equity Regular	41,682	0	0	0	0	0	0	0	0	0	0	0	0	41,682
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	122,596	0	0	0	0	0	0	0	0	0	0	0	0	122,596
	Cost Sum	2,467,134	0	0	0	0	0	0	0	0	0	0	0	0	2,467,134
	825-Clearings	-2,467,134	0	0	0	0	0	0	0	0	0	0	0	0	-2,467,134
	Clr Sum	-2,467,134	0	0	0	0	0	0	0	0	0	0	0	0	-2,467,134
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	74417010	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	6,699,253	0	0	0	0	7,890,000	0	0	0	0	0	8,540,000	285,000	23,414,253
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	-4,495,642	0	0	0	0	-5,259,474	0	0	0	0	0	-5,692,764	-189,981	-15,637,861
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	44,885	0	0	0	0	0	0	0	0	0	0	0	0	44,885
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	54,361	0	0	0	0	3,703	0	0	0	0	0	4,008	134	62,206
	929-AFUDC - Equity Regular	41,682	0	0	0	0	3,338	0	0	0	0	0	3,613	121	48,754
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNM R D&V	122,596	0	0	0	0	205,613	0	0	0	0	0	222,552	7,427	558,189
	Cost Sum	2,467,134	0	0	0	0	2,843,181	0	0	0	0	0	3,077,410	102,700	8,490,426
	825-Clearings	-2,467,134	0	0	0	0	-2,843,181	0	0	0	0	0	-3,077,410	-102,700	-8,490,426
	Clr Sum	-2,467,134	0	0	0	0	-2,843,181	0	0	0	0	0	-3,077,410	-102,700	-8,490,426
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Palo Verde

Project No: 72123410 PV1 capital structures all years

Company: 003-Bulk Power
Location: 721 Palo Verde

Project Information

<u>Construction Start Date</u>	6/1/2015	<u>Estimated Completion Date</u>
<u>List Interim In-Service Dates</u>		
0		

Project Need Justification

Palo Verde completes capital projects annually to maintain the facility's compliance with Nuclear Regulatory Commission regulations and to provide the highest capacity factor economically justifiable. This capital program has been developed after extensive internal review by the Operating Agent, Palo Verde Nuclear Generating Station (PVNGS), and has been reviewed by each of the participant owners. Failure to maintain plant equipment adds risks not carried by non-nuclear facilities in that plant performance and operating authorization is continually analyzed by the Nuclear Regulatory Commission under Federal guidelines. Approximately 52% of the total Unit 1 projects are associated with Plant Modifications, and 45% are associated with Equipment Purchase or Replacements. The projects with the most significant dollars in Plant Modifications are: Cooling Tower Life Extension, Inverter Modification, Loss of Phase Startup Transformer, and Digital Upgrades to Emergency Data Logger. The projects with the most significant dollars in Equipment Purchase or Replacements are: Spray Pond Concrete Replacement, Control Element Assembly Replacement, Circulating Water Pipeline Replacement, Reactor Circulating Water Pump Replacement, and Safety Injection Valve Replacement. The two largest projects (Safety Injection valve and Control Element Assembly Replacements) are representative of most projects; they are replacements in like kind and therefore there are no alternatives.

Project Alternatives

This is a contractually obligated project. With a 10.2% ownership of PVNGS, PNM is one of seven parties to a Participation Agreement that runs through 2047. This contract provides the only alternative for review of capital projects recommended by the Operating Agent. Under the Participation Agreement (PA), the Owner-Participants have reviewed and approved the recommended 2016 capital improvement budget. The PA provides a resolution process for any Owner(s) who disagree with the NRC Licensee and Plant Operator's (Arizona Public Service) recommendations for Capital and O&M expenditures. The PA further provides that the contesting Owner must continue to pay their share of the Operating Agent's invoice for disputed projects pending final resolution. Failure to do so places PNM in risk of default. This again, places Palo Verde in a unique situation with multiple Owner-Participant's review and approval decisions.

Technical Aspects

This involves multiple projects related to maintain the nuclear reactor, steam generation, turbine generator, and related nuclear safety components. This

project category includes capital improvement initiatives on Unit 1 out of approximately 212 for PVNGS during 2016. Major initiatives include expenditures for Cooling Tower Life Extension; Reactor Coolant pump motor replacement; nuclear reactor control element assembly replacement and concrete replacement for the ultimate heat sink, spray pond.

Project Estimate Approach

Palo Verde uses AACE (Association for the Advancement of Cost Engineering) standards for cost estimations. These standards are recognized by the Department of Energy through DOE G 413.3-21. Palo Verde is active in a collaborative program with other nuclear plants that shares cost information as well as looking for opportunities to jointly enter into vendor contracts for cost optimization. Project scope and alternatives are initially identified by Palo Verde, with cost estimates developed consistent with industry practices. PNM is the operating agent for San Juan Generating Station and follows a similar process to APS at Palo Verde. Individual project estimates are developed by the Palo Verde project managers group. Approximately 52% of the total Unit 1 projects are associated with Plant Modifications, 45% are associated with Equipment Purchase or Replacements. The projects with the most significant dollars in Plant Modifications are Cooling Tower Life Extension, Inverter Modification, Loss of Phase Startup Transformer, and Digital Upgrades to Emergency Data Logger. The projects with the most significant dollars in Equipment Purchase or Replacements are Spray Pond Concrete Replacement, Control Element Assembly Replacement, Circulating Water Pipeline Replacement, Reactor Circulating Water Pump replacement, and Safety Injection valve replacement. The two largest projects (Safety Injection valve and Control Element Assembly replacements) are representative of most projects; they are replacements in like kind and therefore there are no Alternatives.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	72123410	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	19,846,686			309,835	182,274	217,178	249,839	280,704	425,911	21,512,427		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-42,034	-42,034	-42,034	-126,103		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	162,743			2,541	1,495	1,781	2,049	2,302	3,492	176,402		
928-AFUDC Debt Reg	392,573			20,552	21,155	19,605	20,180	20,783	21,441	516,289		
929-AFUDC - Equity Regular	435,676			22,257	22,910	21,231	21,854	22,507	23,219	569,655		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMNR D&V	0			0	0	0	0	0	0	0		
Cost Sum	20,837,677			355,184	227,834	259,795	251,888	284,262	432,029	22,648,670		
825-Clearings	-12,322,669			-23,292	-933,106	0	0	-65,690	-5,143,478	-18,488,235		
Clr Sum	-12,322,669			-23,292	-933,106	0	0	-65,690	-5,143,478	-18,488,235		
Proj Net	8,515,009			331,892	-705,273	259,795	251,888	218,572	-4,711,449	4,160,434		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	72123410	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	21,512,427	162,731	186,211	227,521	278,358	388,722	400,493	374,728	455,777	586,255	1,507,744	536,418	356,530	26,973,915
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-126,103	-28,528	-28,528	0	0	0	0	0	0	0	0	0	0	-183,159
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	176,402	1,334	1,527	1,866	2,283	3,188	3,284	3,073	3,737	4,807	12,364	4,399	2,924	221,186
	928-AFUDC Debt Reg	516,289	12,186	12,644	13,226	13,862	14,822	15,948	16,433	17,045	18,322	20,915	22,645	21,582	715,919
	929-AFUDC - Equity Regular	569,655	15,984	16,584	17,348	18,182	19,441	20,919	21,555	22,357	24,032	27,433	29,702	28,309	831,503
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	22,648,670	163,707	188,438	259,961	312,685	426,173	440,644	415,789	498,916	633,416	1,568,455	593,164	409,345	28,559,363
	825-Clearings	-18,488,235	0	0	-41,754	0	0	-241,568	-222,063	-74,889	-103,133	-415,103	-910,013	-4,035,990	-24,532,748
	Clr Sum	-18,488,235	0	0	-41,754	0	0	-241,568	-222,063	-74,889	-103,133	-415,103	-910,013	-4,035,990	-24,532,748
	Proj Net	4,160,434	163,707	188,438	218,207	312,685	426,173	199,076	193,726	424,027	530,283	1,153,353	-316,849	-3,626,645	4,026,615

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	72123410	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	26,973,915	131,825	159,691	198,757	537,948	204,102	216,995	356,368	251,512	178,316	188,374	121,788	396,208	29,915,799
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-183,159	0	0	0	0	0	0	0	0	0	0	0	0	-183,159
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	221,186	1,081	1,309	1,630	4,411	1,674	1,779	2,922	2,062	1,462	1,545	999	3,249	245,309
	928-AFUDC Debt Reg	715,919	11,856	12,298	12,831	13,865	14,911	15,432	16,264	17,145	15,723	14,456	14,936	14,468	890,104
	929-AFUDC - Equity Regular	831,503	10,687	11,086	11,567	12,498	13,441	13,911	14,661	15,455	14,174	13,031	13,464	13,042	988,522
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNM D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	28,559,363	155,449	184,385	224,785	568,723	234,127	248,118	390,215	286,174	209,676	217,406	151,187	426,967	31,856,575
	825-Clearings	-24,532,748	0	0	0	0	-40,886	0	0	-793,486	-700,034	0	-468,803	-1,176,544	-27,712,502
	Clr Sum	-24,532,748	0	0	0	0	-40,886	0	0	-793,486	-700,034	0	-468,803	-1,176,544	-27,712,502
	Proj Net	4,026,615	155,449	184,385	224,785	568,723	193,241	248,118	390,215	-507,312	-490,359	217,406	-317,616	-749,577	4,144,073

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Project No: 72223410 PV2 capital structures all years

Company: 003-Bulk Power
Location: 722 Palo Verde

Project Information

<u>Construction Start Date</u>	6/1/2015	<u>Estimated Completion Date</u>
<u>List Interim In-Service Dates</u>		

0

Project Need Justification

Palo Verde completes capital projects annually to maintain the facility in compliance with Nuclear Regulatory Commission regulations and to provide the highest capacity factor that is economically justified. This capital program has been developed after extensive internal review by the Operating Agent of the Palo Verde Nuclear Generating Station (PVNGS), and has been reviewed by each of the participant owners. Failure to maintain plant equipment adds risks not carried by non-nuclear facilities in that plant performance and operating authorization is continually analyzed by the Nuclear Regulatory Commission under Federal guidelines. Approximately 55% of the total Unit 2 projects are associated with Plant Modifications, 32% are associated with Equipment Purchase or Replacements. The project with the most significant dollars in Plant Modifications is for Security Access Control. The project with the most significant dollars in Equipment Purchase or Replacements is for the Reactor Coolant Pump Motor Replacement.

Project Alternatives

This is a contractually obligated project with no other alternatives. With a 10.2% ownership of PVNGS, PNM is one of seven parties to a Participation Agreement that runs through 2047. This contract provides the only alternative for review of capital projects recommended by the Operating Agent. Under the Participation Agreement (PA), the Owner-Participants have reviewed and approved the recommended 2016 capital improvement budget. The PA provides a resolution process for any Owner(s) who disagree with the NRC Licensee and plant Operator's (Arizona Public Service) recommendations for Capital and O&M expenditures. The PA further provides that the contesting Owner must continue to pay their share of the Operating Agent's invoice for disputed projects pending final resolution. Failure to do so places PNM in risk of default. This again, places Palo Verde in a unique situation with other Owner-Participant's review and approval decisions.

Technical Aspects

This involves multiple projects relating to maintaining the nuclear reactor, steam generation, turbine generator, and related nuclear safety components. This project represents 22 capital improvement initiatives on Unit 2 out of approximately 212 for Palo Verde during 2016. Major initiatives include expenditures for Main Transformer replacement and the replacement of a nuclear reactor coolant pump motor.

Project Estimate Approach

Palo Verde uses AACE (Association for the Advancement of Cost Engineering) standards for cost estimations. These standards are recognized by the Department of Energy (DOE) through DOE G 413.3-21. Palo Verde is active in a collaborative program with other nuclear plants that shares cost information as well as looking for opportunities to jointly enter into vendor contracts for cost optimization. Project scope and alternatives are initially identified by Palo Verde, with cost estimates developed consistent with industry practices. PNM is the operating agent for San Juan Generating Station and follows a similar process to APS at Palo Verde. Individual project estimates are developed by the Palo Verde project managers group. Approximately 55% of the total Unit 2 projects are associated with Plant Modifications, 32% are associated with Equipment Purchase or Replacements. The project with the most significant dollars in Plant Modifications is for Security Access Control. The project with the most significant dollars in Equipment Purchase or Replacements is for the Reactor Coolant Pump Motor Replacement.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	72223410	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	18,929,741			234,967	196,962	134,966	117,749	129,642	879,505	20,623,532		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			10,938	10,938	10,938	10,938	10,938	10,938	65,630		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-14,768	-14,768	-14,768	-44,304		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	155,224			2,016	1,705	1,196	1,055	1,153	7,302	169,651		
928-AFUDC Debt Reg	438,433			5,929	6,450	6,883	7,090	7,396	8,357	480,537		
929-AFUDC - Equity Regular	551,419			6,421	6,985	7,454	7,678	8,009	9,050	597,016		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	20,074,816			260,271	223,041	161,437	129,743	142,371	900,384	21,892,062		
825-Clearings	-18,118,184			-9,683	0	-53,404	0	-94,083	-533,301	-18,808,656		
Clr Sum	-18,118,184			-9,683	0	-53,404	0	-94,083	-533,301	-18,808,656		
Proj Net	1,956,632			250,588	223,041	108,033	129,743	48,287	367,082	3,083,406		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	72223410	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	20,623,532	505,247	294,739	1,464,067	1,612,722	615,978	145,697	369,016	93,779	374,401	114,832	235,926	287,782	26,737,718
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	65,630	0	0	0	0	0	0	0	0	0	0	0	0	65,630
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-44,304	-18,940	-18,940	0	0	0	0	0	0	0	0	0	0	-82,184
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	169,651	4,143	2,417	12,005	13,224	5,051	1,195	3,026	769	3,070	942	1,935	2,360	219,788
	928-AFUDC Debt Reg	480,537	10,109	11,172	13,526	17,650	20,010	16,231	13,866	11,166	11,809	12,523	13,059	13,718	645,377
	929-AFUDC - Equity Regular	597,016	13,260	14,654	17,742	23,152	26,246	21,290	18,188	14,646	15,489	16,426	17,129	17,994	813,231
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	21,892,062	513,820	304,042	1,507,340	1,666,748	667,284	184,413	404,096	120,360	404,769	144,722	268,049	321,854	28,399,559
	825-Clearings	-18,808,656	0	0	0	-259,252	-1,879,745	-1,204,176	-1,301,356	-15,248	0	0	-41,272	-81,593	-23,591,299
	Clr Sum	-18,808,656	0	0	0	-259,252	-1,879,745	-1,204,176	-1,301,356	-15,248	0	0	-41,272	-81,593	-23,591,299
	Proj Net	3,083,406	513,820	304,042	1,507,340	1,407,496	-1,212,461	-1,019,763	-897,260	105,111	404,769	144,722	226,777	240,260	4,808,260

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project 72223410	Year	2018													
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	26,737,718	498,719	167,341	502,411	157,998	318,750	376,523	251,512	436,948	1,484,324	1,781,614	1,073,448	331,132	34,118,438	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	65,630	0	0	0	0	0	0	0	0	0	0	0	0	65,630	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	-82,184	0	0	0	0	0	0	0	0	0	0	0	0	-82,184	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	219,788	4,089	1,372	4,120	1,296	2,614	3,087	2,062	3,583	12,171	14,609	8,802	2,715	280,309	
928-AFUDC Debt Reg	645,377	14,649	15,598	14,777	15,720	16,330	17,326	18,239	18,023	20,642	23,999	27,639	11,411	859,730	
929-AFUDC - Equity Regular	813,231	13,205	14,061	13,321	14,171	14,720	15,618	16,441	16,247	18,607	21,634	24,915	10,286	1,006,458	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	28,399,559	530,663	198,373	534,629	189,184	352,414	412,555	288,255	474,800	1,535,744	1,841,857	1,134,804	355,545	36,248,382	
825-Clearings	-23,591,299	0	-681,745	0	-36,774	0	0	-464,459	0	-399,814	-91,203	-6,974,606	-1,139,548	-33,379,447	
Clr Sum	-23,591,299	0	-681,745	0	-36,774	0	0	-464,459	0	-399,814	-91,203	-6,974,606	-1,139,548	-33,379,447	
Proj Net	4,808,260	530,663	-483,372	534,629	152,410	352,414	412,555	-176,204	474,800	1,135,930	1,750,654	-5,839,801	-784,003	2,868,934	

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Project No: 72323410 PV3 capital structures all years

Company: 003-Bulk Power
Location: 723 Palo Verde

Project Information

<u>Construction Start Date</u>	6/1/2015	<u>Estimated Completion Date</u>
<u>List Interim In-Service Dates</u>		
0		

Project Need Justification

Palo Verde completes capital projects annually to maintain the facility in compliance with Nuclear Regulatory Commission regulations and to provide the highest capacity factor that is economically justified. This capital program has been developed after extensive internal review by the Operating Agent, Palo Verde Nuclear Generating Station (PVNGS), and reviewed by each of the participant owners. Failure to maintain plant equipment adds risks not carried by non-nuclear facilities in that plant performance and operating authorization are continually analyzed by the Nuclear Regulatory Commission under Federal guidelines. Approximately 35% of the total Unit 3 projects are associated with Plant Modifications, 56% are associated with Equipment Purchase or Replacements. The projects with the most significant dollars in Plant Modifications are: Cooling Tower Life Extension, Digital Upgrade Turbine Control, Spray Pond Filtration System and Inverter Modification. The projects with the most significant dollars in Equipment Purchase or Replacements are: Main Transformer Replacement, Reactor Coolant Pump Motor Replacement and Hypo Trench Replacement.

Project Alternatives

No other alternatives exist as this project is contractually obligated. With a 10.2% ownership of PVNGS, PNM is one of seven parties to a Participation Agreement that runs through 2047. This contract provides the only alternative for review of capital projects recommended by the Operating Agent. Under the Participation Agreement (PA), the Owner-Participants have reviewed and approved the recommended 2016 capital improvement budget. The PA provides a resolution process for any Owner(s) who disagree with the NRC Licensee and plant Operator's (Arizona Public Service) recommendations for Capital and O&M expenditures. The PA further provides that the contesting Owner must continue to pay their share of the Operating Agent's invoice for disputed projects pending final resolution. Failure to do so places PNM in risk of default. This again, places Palo Verde in a unique situation in that other Owner-Participants review and approval decisions.

Technical Aspects

This involves multiple projects related to maintaining the nuclear reactor, steam generation, turbine generator, and related nuclear safety components. This project represents 34 capital improvement initiatives on Unit 3 out of ~212 for Palo Verde during 2016. Major initiatives include expenditures for Cooling Tower

Project Estimate Approach

Palo Verde uses AACE (Association for the Advancement of Cost Engineering) standards for cost estimations. These standards are recognized by the Department of Energy through DOE G 413.3-21. Palo Verde is active in a collaborative program with other Nuclear Plants that shares cost information as well as looking for opportunities to jointly enter into vendor contracts for cost optimization. Project scope and alternatives are initially identified by Palo Verde, with cost estimates developed consistent with industry practices. PNM is the operating agent for San Juan Generating Station and follows a similar process to APS at Palo Verde. Individual project estimates are developed by the Palo Verde project managers group. Approximately 35% of the total Unit 3 projects are associated with Plant Modifications, 56% are associated with Equipment Purchase or Replacements. The projects with the most significant dollars in Plant Modifications are Cooling Tower Life Extension, Digital Upgrade Turbine Control, Spray Pond Filtration System and Inverter Modification. The projects with the most significant dollars in Equipment Purchase or Replacements are Main Transformer Replacement, Reactor Coolant Pump Motor Replacement and Hypo Trench Replacement.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	72323410	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	11,613			0	0	0	0	0	0	11,613		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	15,932,993			222,421	304,776	354,164	1,060,943	398,004	411,937	18,685,238		
530-Employee Expense	630			0	0	0	0	0	0	630		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-14,824	-14,365	-14,767	-43,956		
426-Capitalized Interest	436,641			9,941	11,180	11,744	14,855	15,300	14,703	514,364		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	888			0	0	0	0	0	0	888		
914-Pension and Benefits Load	4,000			0	0	0	0	0	0	4,000		
915-Injuries and Damages Load	339			0	0	0	0	0	0	339		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	130,611			1,824	2,499	2,904	8,700	3,264	3,378	153,180		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	16,517,714			234,186	318,456	368,812	1,069,674	402,203	415,250	19,326,296		
825-Clearings	-14,480,911			0	0	-14,488	-513,268	-667,679	-1,639,846	-17,316,192		
Clr Sum	-14,480,911			0	0	-14,488	-513,268	-667,679	-1,639,846	-17,316,192		
Proj Net	2,036,803			234,186	318,456	354,324	556,407	-265,476	-1,224,596	2,010,104		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	72323410	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	11,613	0	0	0	0	0	0	0	0	0	0	0	0	11,613
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	18,685,238	62,159	95,533	296,575	197,880	90,780	89,291	107,182	58,997	272,503	75,256	198,390	263,812	20,493,596
	530-Employee Expense	630	0	0	0	0	0	0	0	0	0	0	0	0	630
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-43,956	-8,991	-8,143	0	0	0	0	0	0	0	0	0	0	-61,090
	426-Capitalized Interest	514,364	8,921	8,384	10,165	10,952	10,341	9,878	10,487	10,775	11,203	12,398	12,597	10,093	640,557
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	888	0	0	0	0	0	0	0	0	0	0	0	0	888
	914-Pension and Benefits Load	4,000	0	0	0	0	0	0	0	0	0	0	0	0	4,000
	915-Injuries and Damages Load	339	0	0	0	0	0	0	0	0	0	0	0	0	339
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	153,180	510	783	2,432	1,623	744	732	879	484	2,235	617	1,627	2,163	168,008
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	19,326,296	62,598	96,557	309,172	210,455	101,865	99,901	118,548	70,256	285,940	88,271	212,613	276,068	21,258,540
	825-Clearings	-17,316,192	0	0	0	-387,608	-115,773	-39,158	-37,902	0	0	-14,667	-929,991	-9,909	-18,851,199
	Clr Sum	-17,316,192	0	0	0	-387,608	-115,773	-39,158	-37,902	0	0	-14,667	-929,991	-9,909	-18,851,199
	Proj Net	2,010,104	62,598	96,557	309,172	-177,154	-13,908	60,743	80,647	70,256	285,940	73,604	-717,377	266,158	2,407,341

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	72323410	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	11,613	0	0	0	0	0	0	0	0	0	0	0	0	11,613
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	20,493,596	270,647	242,719	578,197	1,895,058	322,320	268,199	246,310	59,752	33,374	40,678	35,700	287,374	24,773,924
	530-Employee Expense	630	0	0	0	0	0	0	0	0	0	0	0	0	630
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-61,090	0	0	0	0	0	0	0	0	0	0	0	0	-61,090
	426-Capitalized Interest	640,557	0	0	0	0	0	0	0	0	0	0	0	0	640,557
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	888	0	0	0	0	0	0	0	0	0	0	0	0	888
	914-Pension and Benefits Load	4,000	0	0	0	0	0	0	0	0	0	0	0	0	4,000
	915-Injuries and Damages Load	339	0	0	0	0	0	0	0	0	0	0	0	0	339
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	168,008	2,219	1,990	4,741	15,539	2,643	2,199	2,020	490	274	334	293	2,356	203,107
	928-AFUDC Debt Reg	0	6,800	7,510	8,628	11,926	14,557	10,710	10,107	10,507	10,491	8,438	8,581	9,023	117,277
	929-AFUDC - Equity Regular	0	6,130	6,770	7,777	10,751	13,122	9,655	9,111	9,472	9,457	7,607	7,735	8,133	105,718
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	21,258,540	285,796	258,988	599,343	1,933,275	352,643	290,763	267,547	80,221	53,595	57,056	52,308	306,886	25,796,962
	825-Clearings	-18,851,199	0	0	0	-133,076	-1,798,499	-510,802	-20,067	-73,324	-843,201	0	-9,960	0	-22,240,129
	Clr Sum	-18,851,199	0	0	0	-133,076	-1,798,499	-510,802	-20,067	-73,324	-843,201	0	-9,960	0	-22,240,129
	Proj Net	2,407,341	285,796	258,988	599,343	1,800,198	-1,445,856	-220,039	247,480	6,897	-789,606	57,056	42,348	306,886	3,556,833

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Project No: 72423008 PV Common \$6,048,378 \$0 \$6,048,378

Company: 003-Bulk Power
Location: 724 Palo Verde

Project Information

<u>Construction Start Date</u>	1/1/2015	<u>Estimated Completion Date</u>
<u>List Interim In-Service Dates</u>		
0		

Project Need Justification

Palo Verde completes capital projects annually to maintain the facility's compliance with Nuclear Regulatory Commission regulations and to provide the highest capacity factor that is economically justified. This capital program has been developed after extensive internal review by the Operating Agent, PVNGS, and has been reviewed by each of the participant owners. Failure to maintain plant equipment adds risks not carried by non-nuclear facilities in that plant performance and operating authorization is continually analyzed by the Nuclear Regulatory Commission under Federal guidelines. This is one project which is the Nuclear Administrative & Technical Manual (NATM) Replacement. This update was required by the NRC for continued operation of Palo Verde. The original reactor operating license requires NATM under the Code of Federal Regulations, 10CFR Part 50. NATM includes over 1,300 technical procedures and over 480 administrative procedures. Each of these procedures forms the basis for other operational procedures and practices guiding the maintenance, operation and radiological safety of the plant. During the escalated enforcement action by the NRC in the late 2000's at Palo Verde, Palo Verde agreed to update these procedures. This requires a very rigorous process in itself, involving a cross section of subject matter experts analyzing key actions that the procedures address, validating the actions and then developing new or updated procedures.

Project Alternatives

With a 10.2% ownership of PVNGS, PNM is one of seven parties to a Participation Agreement that runs through 2047. This contract provides the only alternative for review of capital projects recommended by the Operating Agent. Under the Participation Agreement (PA), the Owner-Participants have already reviewed and approved the recommended 2015 capital improvement budget. The PA provides a resolution process for any Owner(s) who disagree with the NRC Licensee and plant Operator's (Arizona Public Service) recommendations for Capital and O&M expenditures. The PA further provides that the contesting Owner must continue to pay their share of the Operating Agent's invoice for disputed projects pending final resolution. Failure to do so places PNM in risk of default. This again, places Palo Verde in a unique situation in that other Owner-Participants review and approval decisions. All of the Project Numbers (724) are Common across the generating facility. As noted in the project justification section, the successful execution of this project requires the work of multiple subject matter experts familiar with specific technical and administrative aspects of the Palo Verde engineering design basis from which the nuclear operating license is issued. This is the only path and alternative from which this project could be successfully completed. Because this NATM replacement was a requirement by a Federal regulatory agency, there was no real alternative to this project. As noted in the project justification section, the successful execution of this project requires the work of multiple subject matter experts familiar with specific technical and administrative aspects of the Palo Verde engineering design basis from which the nuclear operating license is issued. This is the only path and alternative from which this project could be successfully completed. NATM replacement

projects of five other nuclear sites were evaluated. Lessons learned from the most successful of these projects were adapted including dedicating Palo Verde subject matter experts to verification and validation of the procedures. At a higher level, three Alternatives were considered: Status Quo- cycling through specific changes one at a time thorough augmentation of the existing procedure writing staff. Due to regulatory conditions at the time and an untenable duration for total review and replacement under this option, it was determined to not be viable. Systematic Upgrade- Unlike the status quo, this augmentation would be to a level allowing procedures to be systematically reviewed in small batches. It was determined that this approach would require an eight-year project duration with cost risks due to escalation over this time period. NATM Procedure Replacement (selected)- This approach provided a dedicated team as noted in the justification section, to replace the NATM over a three-year schedule. This approach was best in line with the existing regulatory actions of the time and also provided a short timeframe to help complete the project with a consistent product.

Technical Aspects

This funding project involves a key requirement for the maintenance and operation of the nuclear reactor, steam generation, turbine generator, and related nuclear safety components. All of the 724 series projects are common across the generating facility and represent 97 capital improvement initiatives out of the ~200 scheduled at PV during 2015. As noted in the project justification section, this particular project is the replacement of the procedures manual, NATM, required for continued operation of the nuclear reactors at Palo Verde.

Project Estimate Approach

Palo Verde uses AACE (Association for the Advancement of Cost Engineering) standards for cost estimations. These standards are recognized by the Department of Energy through DOE G 413.3-21. Palo Verde is active in a collaborative program with other Nuclear Plants that shares cost information as well as looking for opportunities to jointly enter into vendor contracts for cost optimization. Project scope and alternatives are initially identified by Palo Verde, with cost estimates developed consistent with industry practices. PNM is the operating agent for San Juan Generating Station and follows a similar process to APS at Palo Verde. Individual project estimates are developed by the Palo Verde project managers group. This is a very labor intensive process with approximately 21% of the project cost being in-house labor, 66% being contract labor and the balance of 13% being materials and other. While the dedicated resources varied over time, the initial team consisted of five in-house members and eleven contract members. Contract members were experienced procedure writers within the nuclear industry.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	72423008	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	11,244,243			0	0	0	0	0	0	11,244,243		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-28,331	-28,331	-14,299	-70,961		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	92,203			0	0	0	0	0	0	92,203		
928-AFUDC Debt Reg	579,981			13,443	13,506	13,570	13,601	13,601	6,801	654,503		
929-AFUDC - Equity Regular	589,613			14,558	14,627	14,695	14,730	14,730	7,365	670,318		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	12,506,041			28,001	28,133	28,265	0	0	-134	12,590,307		
825-Clearings	-6,541,928			0	0	0	0	-3,024,256	-3,024,122	-12,590,307		
Clr Sum	-6,541,928			0	0	0	0	-3,024,256	-3,024,122	-12,590,307		
Proj Net	5,964,112			28,001	28,133	28,265	0	-3,024,256	-3,024,256	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	72423008	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj	Bills to PNM-Non-Labor	11,244,243	0	0	0	0	0	0	0	0	0	0	0	0	11,244,243
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non	Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-70,961	0	0	0	0	0	0	0	0	0	0	0	0	-70,961
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	92,203	0	0	0	0	0	0	0	0	0	0	0	0	92,203
	928-AFUDC Debt Reg	654,503	0	0	0	0	0	0	0	0	0	0	0	0	654,503
	929-AFUDC - Equity Regular	670,318	0	0	0	0	0	0	0	0	0	0	0	0	670,318
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	12,590,307	0	0	0	0	0	0	0	0	0	0	0	0	12,590,307
	825-Clearings	-12,590,307	0	0	0	0	0	0	0	0	0	0	0	0	-12,590,307
	Clr Sum	-12,590,307	0	0	0	0	0	0	0	0	0	0	0	0	-12,590,307
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	72423008	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	11,244,243	0	0	0	0	0	0	0	0	0	0	0	0	11,244,243
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-70,961	0	0	0	0	0	0	0	0	0	0	0	0	-70,961
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	92,203	0	0	0	0	0	0	0	0	0	0	0	0	92,203
	928-AFUDC Debt Reg	654,503	0	0	0	0	0	0	0	0	0	0	0	0	654,503
	929-AFUDC - Equity Regular	670,318	0	0	0	0	0	0	0	0	0	0	0	0	670,318
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	12,590,307	0	0	0	0	0	0	0	0	0	0	0	0	12,590,307
	825-Clearings	-12,590,307	0	0	0	0	0	0	0	0	0	0	0	0	-12,590,307
	Clr Sum	-12,590,307	0	0	0	0	0	0	0	0	0	0	0	0	-12,590,307
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 72423009 PV Common CBIs \$2,147,983 (\$569,882) \$2,147,983

Company: 003-Bulk Power
Location: 724 Palo Verde

Project Information

<u>Construction Start Date</u>	1/1/2007	<u>Estimated Completion Date</u>
<u>List Interim In-Service Dates</u>		
0		

Project Need Justification

Palo Verde completes capital projects annually to ensure the facility remains in compliance with Nuclear Regulatory Commission regulations/standards and to ensure the highest capacity factor that is economically justified is maintained. The capital program has been developed after extensive internal review by the Operating Agent, PVNGS, and has been reviewed by each of the participant owners. Failure to maintain plant equipment adds risks not carried by non-nuclear facilities in that plant performance and operating authorization is continually analyzed by the Nuclear Regulatory Commission under Federal guidelines.

Project Alternatives

With a 10.2% ownership of PVNGS, PNM is one of seven parties to a Participation Agreement (PA) that runs through 2047. This contract provides the only alternative for reviewing capital projects recommended by the Operating Agent. Under the PA, the Owner-Participants have the opportunity to review, comment, and approved the recommended 2015 capital improvement budget. The PA provides a resolution process for any Owner(s) who disagree with the NRC Licensee and plant Operator's (Arizona Public Service) recommendations for Capital and O&M expenditures. The PA further provides that the contesting Owner must continue to pay their share of the Operating Agent's invoice for disputed projects pending final resolution. Failure to do so places PNM in risk of default. This again, places Palo Verde in a unique situation in that other Owner-Participants review and approve capital spend decisions.

Technical Aspects

Involves multiple projects relating to the maintenance of the nuclear reactor, steam generation, turbine generator, and related nuclear safety components. All of the projects in the 724 series (projects that begin with the digits 724) are common across the generating facility and comprise nearly half of the approximately 200 initiatives for 2015. Major initiatives include installing Fukushima emergency response equipment; constructing an emergency equipment storage building; NATM replacement; extension of the Protected Area zone; upgrades to the security access system; as well as other cyber security regulation initiatives.

Project Estimate Approach

Palo Verde uses AACE (Association for the Advancement of Cost Engineering) standards for cost estimations. These standards are recognized by the

Department of Energy (DOE) through DOE G 413.3-21. Palo Verde is active in a collaborative program with other nuclear operators that share cost information as well as looking for opportunities to jointly enter into vendor contracts to optimize costs. Project scope and alternatives are initially identified by Palo Verde, with cost estimates developed based on industry practices. PNM is the operating agent for San Juan Generating Station and follows a similar process to APS at Palo Verde. Individual project estimates are developed by the Palo Verde project managers group.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	72423009	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	20,684,529			0	0	0	0	0	0	20,684,529		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	169,613			0	0	0	0	0	0	169,613		
928-AFUDC Debt Reg	630,011			5,475	5,501	5,526	5,552	5,578	5,605	663,249		
929-AFUDC - Equity Regular	695,714			5,929	5,957	5,985	6,013	6,041	6,070	731,709		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	22,179,866			11,404	11,458	11,511	11,565	11,620	11,674	22,249,099		
825-Clearings	-19,750,873			0	0	0	0	0	0	-19,750,873		
Clr Sum	-19,750,873			0	0	0	0	0	0	-19,750,873		
Proj Net	2,428,994			11,404	11,458	11,511	11,565	11,620	11,674	2,498,226		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	72423009	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	20,684,529	0	0	0	0	0	0	0	0	0	0	0	0	20,684,529
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	169,613	0	0	0	0	0	0	0	0	0	0	0	0	169,613
	928-AFUDC Debt Reg	663,249	6,512	6,551	6,591	6,630	6,670	6,711	6,751	6,792	6,833	6,874	6,915	6,957	744,036
	929-AFUDC - Equity Regular	731,709	8,542	8,593	8,645	8,697	8,749	8,802	8,855	8,908	8,962	9,016	9,070	9,125	837,674
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	22,249,099	15,054	15,144	15,236	15,327	15,420	15,513	15,606	15,700	15,795	15,890	15,986	16,082	22,435,851
	825-Clearings	-19,750,873	0	0	0	0	0	0	0	0	0	0	0	-2,147,983	-21,898,855
	Clr Sum	-19,750,873	0	0	0	0	0	0	0	0	0	0	0	-2,147,983	-21,898,855
	Proj Net	2,498,226	15,054	15,144	15,236	15,327	15,420	15,513	15,606	15,700	15,795	15,890	15,986	-2,131,901	536,996

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	72423009	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		20,684,529	0	0	0	0	0	0	0	0	0	0	0	0	20,684,529
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	169,613	0	0	0	0	0	0	0	0	0	0	0	0	169,613
	928-AFUDC Debt Reg	744,036	1,402	1,409	1,416	1,423	1,430	1,438	1,445	1,452	1,459	1,466	1,474	1,481	761,331
	929-AFUDC - Equity Regular	837,674	1,264	1,270	1,277	1,283	1,289	1,296	1,302	1,309	1,315	1,322	1,328	1,335	853,265
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	22,435,851	2,667	2,680	2,693	2,706	2,720	2,733	2,747	2,761	2,774	2,788	2,802	2,816	22,468,738
	825-Clearings	-21,898,855	0	0	0	0	0	0	0	0	0	0	0	0	-21,898,855
	Clr Sum	-21,898,855	0	0	0	0	0	0	0	0	0	0	0	0	-21,898,855
Proj Net		536,996	2,667	2,680	2,693	2,706	2,720	2,733	2,747	2,761	2,774	2,788	2,802	2,816	569,882

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Project No: 72423410 PV Common capital structures all years

Company: 003-Bulk Power
Location: 724 Palo Verde

Project Information

Construction Start Date 6/1/2015 Estimated Completion Date

List Interim In-Service Dates

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Project Need Justification

Palo Verde completes capital projects annually to maintain the facility's compliance with Nuclear Regulatory Commission regulations and provide the highest capacity factor that is economically justified. This capital program has been developed after extensive internal review by the Operating Agent, PVNGS, and reviewed by each of the participant owners. Failure to maintain plant equipment adds risks not carried by non-nuclear facilities in that plant performance and operating authorization is continually analyzed by the Nuclear Regulatory Commission under Federal guidelines. Approximately 52% of the total Common projects are associated with Buildings and Computers, 25% are associated with Equipment and Replacements, and 22% are associated with General Plant projects. The projects with the most significant dollars in Buildings and Computers are Microsoft License Fees, HVAC Replacements, Facilities Upgrades and In-processing and Training Center. Projects with the most significant dollars in Equipment and Replacements are Fire Protection Piping, Cyber Security initiatives and Nuclear Administration and Technical Manual replacement. Projects with the most significant dollars in General Plant are Construction Power Electrical replacement, Site drainage reconfiguration, Parking Lot modifications and Integration of site communications infrastructure.

Project Alternatives

With a 10.2% ownership of PVNGS, PNM is one of seven parties to a Participation Agreement that runs through 2047. This contract provides the only alternative for review of capital projects recommended by the Operating Agent. Under the Participation Agreement (PA), the Owner-Participants have already reviewed and approved the recommended 2016 capital improvement budget. The PA provides a resolution process for any Owner(s) who disagree with the NRC Licensee and plant Operator's (Arizona Public Service) recommendations for Capital and O&M expenditures. The PA further provides that the contesting Owner must continue to pay their share of the Operating Agent's invoice for disputed projects pending final resolution. See additional discussion on Lease Agreement provisions for Unit 2 below. Failure to do so places PNM in risk of default. This again, places Palo Verde in a unique situation in that other Owner-Participants also review and approve decisions under the Participation Agreement.

Technical Aspects

This funding project involves multiple projects relating to the maintenance of the nuclear reactor, steam generation, turbine generator, and related nuclear safety components. All of the 724 series projects are common across the generating facility and represent 77 capital improvement initiatives out of the ~212 scheduled at PV during 2016. Major initiatives include NATM replacement, HVAC replacements, Microsoft License Fees and Cyber Security requirements under NRC regulations.

Project Estimate Approach

Palo Verde uses AACE (Association for the Advancement of Cost Engineering) standards for cost estimations. These standards are recognized by the Department of Energy through DOE G 413.3-21. Palo Verde is active in a collaborative program with other Nuclear Plants that shares cost information as well as looking for opportunities to jointly enter into vendor contracts for cost optimization. Project scope and alternatives are initially identified by Palo Verde, with cost estimates developed consistent with industry practices. PNM is the operating agent for San Juan Generating Station and follows a similar process to APS at Palo Verde. Individual project estimates are developed by the Palo Verde project managers group. Approximately 52% of the total Common projects are associated with Buildings and Computers, 25% are associated with Equipment and Replacements, and 22% are associated with General Plant projects. The projects with the most significant dollars in Buildings and Computers are Microsoft License Fees, HVAC Replacements, Facilities Upgrades and In-processing and Training Center. Projects with the most significant dollars in Equipment and Replacements are Fire Protection Piping, Cyber Security initiatives and Nuclear Administration and Technical Manual replacement. Projects with the most significant dollars in General Plant are Construction Power Electrical replacement, Site drainage reconfiguration, Parking Lot modifications and Integration of site communications infrastructure.

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	72423410	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	570			0	0	0	0	0	0	570		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	25,760,303			549,497	1,321,917	1,150,545	1,565,077	1,087,456	-796,251	30,638,544		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	-958,800			0	0	0	-31,543	-31,543	-26,378	-1,048,263		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	4			0	0	0	0	0	0	4		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	211,239			4,506	10,840	9,434	12,834	8,917	-6,529	251,241		
928-AFUDC Debt Reg	608,490			25,556	26,040	28,875	15,143	15,614	12,558	732,278		
929-AFUDC - Equity Regular	718,019			27,676	28,201	31,271	16,400	16,909	13,600	852,076		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	26,339,825			607,236	1,386,998	1,220,125	1,577,911	1,097,353	-803,000	31,426,448		
825-Clearings	-15,353,884			-781,785	-42,958	-7,505,557	-1,128,476	-1,505,902	-1,855,567	-28,174,129		
Clr Sum	-15,353,884			-781,785	-42,958	-7,505,557	-1,128,476	-1,505,902	-1,855,567	-28,174,129		
Proj Net	10,985,942			-174,550	1,344,040	-6,285,431	449,435	-408,549	-2,658,567	3,252,320		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	72423410	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	570	0	0	0	0	0	0	0	0	0	0	0	0	570
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		30,638,544	334,805	378,685	410,713	601,188	1,056,618	535,133	560,470	566,549	575,239	538,234	476,952	523,403	37,196,532
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-1,048,263	-21,287	-21,287	0	0	0	0	0	0	0	0	0	0	-1,090,837
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		4	0	0	0	0	0	0	0	0	0	0	0	0	4
922-Minor Material Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads		0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads		251,241	2,745	3,105	3,368	4,930	8,664	4,388	4,596	4,646	4,717	4,414	3,911	4,292	305,016
928-AFUDC Debt Reg		732,278	9,086	9,918	10,548	11,585	13,696	14,839	15,743	17,070	18,368	19,942	19,091	19,985	912,147
929-AFUDC - Equity Regular		852,076	11,918	13,009	13,836	15,195	17,965	19,463	20,649	22,390	24,093	26,157	25,041	26,214	1,088,005
937-San Juan AR - Other		0	0	0	0	0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	31,426,448	337,267	383,430	438,465	632,898	1,096,943	573,823	601,457	610,654	622,418	588,747	524,995	573,893	38,411,437
	825-Clearings	-28,174,129	-40,313	-168,335	-136,899	-52,515	-395,659	-239,867	-95,374	-116,850	0	-884,433	-205,428	-5,336,543	-35,846,346
	Clr Sum	-28,174,129	-40,313	-168,335	-136,899	-52,515	-395,659	-239,867	-95,374	-116,850	0	-884,433	-205,428	-5,336,543	-35,846,346
Proj Net		3,252,320	296,954	215,096	301,566	580,383	701,283	333,956	506,083	493,804	622,418	-295,687	319,567	-4,762,650	2,565,091

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project 72423410	Year	2018													
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	570	0	0	0	0	0	0	0	0	0	0	0	0	570	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	37,196,532	504,941	578,707	578,503	537,540	562,326	609,389	601,576	614,122	615,182	593,110	565,386	785,237	44,342,550	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	-1,090,837	0	0	0	0	0	0	0	0	0	0	0	0	-1,090,837	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	4	0	0	0	0	0	0	0	0	0	0	0	0	4	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	305,016	4,141	4,745	4,744	4,408	4,611	4,997	4,933	5,036	5,044	4,863	4,636	6,439	363,614	
928-AFUDC Debt Reg	912,147	7,560	9,024	10,563	9,297	10,791	12,387	13,513	15,181	16,874	18,087	19,493	21,266	1,076,184	
929-AFUDC - Equity Regular	1,088,005	6,815	8,135	9,522	8,381	9,728	11,167	12,181	13,684	15,211	16,304	17,572	19,170	1,235,875	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	38,411,437	523,456	600,611	603,332	559,626	587,456	637,940	632,203	648,022	652,312	632,364	607,087	832,112	45,927,960	
825-Clearings	-35,846,346	0	-11,293	-1,067,332	0	0	-202,966	0	0	-176,897	-79,851	-38,932	-6,177,315	-43,600,932	
Clr Sum	-35,846,346	0	-11,293	-1,067,332	0	0	-202,966	0	0	-176,897	-79,851	-38,932	-6,177,315	-43,600,932	
Proj Net	2,565,091	523,456	589,318	-464,001	559,626	587,456	434,974	632,203	648,022	475,416	552,513	568,155	-5,345,202	2,327,028	

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Project No: 72523410 PV Common Water Rec Facility capital structures all years

Company: 003-Bulk Power
Location: 725 Palo Verde

Project Information

Construction Start Date 6/1/2015 Estimated Completion Date

List Interim In-Service Dates

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Project Need Justification

Palo Verde completes capital projects annually to maintain the facility's compliance with Nuclear Regulatory Commission regulations and to provide the highest capacity factor that is economically justified. This capital program has been developed after extensive internal review by the Operating Agent of the Palo Verde Nuclear Generating Station (PVNGS), and has been reviewed by each of the participant owners. Failure to maintain plant equipment adds risks not carried by non-nuclear facilities in that plant performance and operating authorization is continually analyzed by the Nuclear Regulatory Commission under Federal guidelines. The projects with the most significant dollars in Common Water Reclamation are: Clarifier Life Extension, Thickener Life Extension, Domestic Water Well maintenance and Pipeline replacement.

Project Alternatives

There are no other alternatives for this project, as it is contractually obligated. With a 10.2% ownership of PVNGS, PNM is one of seven parties to a Participation Agreement that runs through 2047. This contract provides the only alternative for review of capital projects recommended by the Operating Agent. Under the Participation Agreement (PA), the Owner-Participants have already reviewed and approved the recommended 2016 capital improvement budget. The PA provides a resolution process for any Owner(s) who disagree with the NRC Licensee and plant Operator's (Arizona Public Service) recommendations for Capital and O&M expenditures. The PA further provides that the contesting Owner must continue to pay their share of the Operating Agent's invoice for disputed projects pending final resolution. See additional discussion on Lease Agreement provisions for Unit 2 below. Among many requirements are specific provisions that "PNM will cause the Operating Agent to maintain the said property and plant in such condition that it will have the capacity and functional ability to perform, on a continuing basis in normal commercial operation..." (DOCID-1-FL-8A). Failure to do so places PNM in risk of default. This again, places Palo Verde in a unique situation in that other Owner-Participants review and approval decisions.

Technical Aspects

This involves multiple projects relating to the maintenance of the nuclear reactor, steam generation, turbine generator, and related nuclear safety components. All of the 725 series projects are common across the generating facility and represent 18 capital improvement initiatives out of the ~212 that are scheduled at

Palo Verde during 2016. Major initiatives include Clarifier Life Extension, Thickener Life Extension, Domestic Water Well maintenance and Pipeline replacements.

Project Estimate Approach

Palo Verde uses AACE (Association for the Advancement of Cost Engineering) standards for cost estimations. These standards are recognized by the Department of Energy (DOE) through DOE G 413.3-21. Palo Verde is active in a collaborative program with other Nuclear Plants that shares cost information as well as looking for opportunities to jointly enter into vendor contracts for cost optimization.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	72523410	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	12,169,652			222,217	200,838	230,336	322,157	174,726	374,809	13,694,735		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-16,174	-16,174	-16,174	-48,523		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	99,791			1,822	1,647	1,889	2,642	1,433	3,073	112,297		
928-AFUDC Debt Reg	226,964			9,825	7,537	8,063	7,765	8,330	8,957	277,441		
929-AFUDC - Equity Regular	261,134			10,640	8,163	8,732	8,409	9,021	9,700	315,799		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	12,757,542			244,504	218,185	249,019	324,799	177,335	380,365	14,351,748		
825-Clearings	-8,561,661			-1,248,606	0	-419,229	0	0	-2,049,069	-12,278,565		
Clr Sum	-8,561,661			-1,248,606	0	-419,229	0	0	-2,049,069	-12,278,565		
Proj Net	4,195,881			-1,004,102	218,185	-170,209	324,799	177,335	-1,668,704	2,073,184		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	72523410	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	13,694,735	277,379	227,419	454,063	264,282	153,408	163,649	258,040	238,109	314,017	502,840	244,290	420,485	17,212,715
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-48,523	-13,750	-13,750	0	0	0	0	0	0	0	0	0	0	-76,023
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	112,297	2,275	1,865	3,723	2,167	1,258	1,342	2,116	1,952	2,575	4,123	2,003	3,448	141,144
	928-AFUDC Debt Reg	277,441	5,884	6,547	7,450	8,374	8,429	4,860	5,035	5,717	6,477	6,890	7,131	8,047	358,281
	929-AFUDC - Equity Regular	315,799	7,717	8,587	9,772	10,984	11,056	6,374	6,604	7,499	8,496	9,037	9,353	10,556	421,834
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	14,351,748	279,504	230,668	475,008	285,807	174,152	176,225	271,794	253,277	331,565	522,889	262,778	442,536	18,057,951
	825-Clearings	-12,278,565	0	-5,269	-24,833	-208,635	-1,548,724	-156,647	0	0	-268,466	-299,988	0	-282,015	-15,073,142
	Clr Sum	-12,278,565	0	-5,269	-24,833	-208,635	-1,548,724	-156,647	0	0	-268,466	-299,988	0	-282,015	-15,073,142
	Proj Net	2,073,184	279,504	225,399	450,175	77,172	-1,374,573	19,578	271,794	253,277	63,099	222,902	262,778	160,520	2,984,809

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	72523410	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	17,212,715	345,719	293,005	303,919	415,548	200,430	190,373	138,802	327,910	275,930	479,074	335,682	444,659	20,963,765
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-76,023	0	0	0	0	0	0	0	0	0	0	0	0	-76,023
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	141,144	2,835	2,403	2,492	3,407	1,644	1,561	1,138	2,689	2,263	3,928	2,753	3,646	171,903
	928-AFUDC Debt Reg	358,281	8,383	9,266	10,068	10,939	11,805	8,582	9,058	9,717	10,560	11,607	11,114	12,197	481,576
	929-AFUDC - Equity Regular	421,834	7,557	8,352	9,076	9,861	10,641	7,736	8,165	8,760	9,520	10,463	10,019	10,994	532,978
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	18,057,951	364,494	313,026	325,556	439,756	224,519	208,252	157,163	349,075	298,273	505,072	359,567	471,496	22,074,199
	825-Clearings	-15,073,142	0	-11,140	-48,333	0	-1,453,475	0	0	0	0	-621,463	0	0	-17,207,552
	Clr Sum	-15,073,142	0	-11,140	-48,333	0	-1,453,475	0	0	0	0	-621,463	0	0	-17,207,552
	Proj Net	2,984,809	364,494	301,886	277,223	439,756	-1,228,956	208,252	157,163	349,075	298,273	-116,391	359,567	471,496	4,866,647

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San Juan

Project No: 76116130 Unit 1 Absorber Double Head Spray Nozzles and Tray Upgrade - 2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

Construction Start Date 2/1/2017 Estimated Completion Date 5/31/2018

List Interim In-Service Dates

0

Project Need Justification

Since 2015, the San Juan Unit 1 has operated under more stringent emission limits for SO2 and the system has reached its performance limits. The system has been challenged with the increase of sulfur content in coal and directly affects operating margin. This project would enhance the ability to meet emission limits by installing additional double spray nozzles to replace the current single nozzle design. This would allow for more slurry-to-gas reaction, and increase removal efficiency. Estimates are based on vendor budgetary quotes and previous site installation experience.

Project Alternatives

The first alternative would be to do nothing, which would require significant derates of the unit and lost generation to remain in regulatory compliance. The other alternative is to install a second sieve tray in the system, but this is not viable because of the fan curves. The last option considered was to install a fourth absorber cell on the system but was rejected as the highest cost option.

Technical Aspects

The spray nozzles distribute limestone slurry in the absorber cell process to ensure proper liquid to gas contact and to increase SO2 removal. This project will replace the nozzles with a double nozzle design to increase the spray system effectiveness. Work will consist of engineering design of the nozzles to ensure proper contact and match the pump performance curves, fabrication of the nozzles, installation of scaffolding to the existing nozzles, removal of the existing nozzles, installation of the new nozzles, and removal of access. Also, the inlet screens will be evaluated by engineering to ensure proper sizing. This is an outage required task with installation expected to occur during the spring 2018 outage and engineering and material purchasing occurring in 2017.

Project Estimate Approach

Estimate is based on vendor supplied quotes and installation contractor estimates. These quotes/estimates were reviewed by PNM subject matter experts and compared to quotes for similar work that has been done or is currently ongoing at PNM. After this review, the vendor(s) that provide estimates that address the scope of this project and that are in line with past expenditures are selected.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116130	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116130	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	9,881	32	9,850	163	19,700	18,700	18,700	2,273	79,300	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	106	0	105	2	211	200	200	24	849	
926-A and G Loads	0	0	0	0	0	234	1	233	4	467	443	443	54	1,879	
928-AFUDC Debt Reg	0	0	0	0	0	7	13	20	27	41	67	92	107	374	
929-AFUDC - Equity Regular	0	0	0	0	0	9	18	26	35	53	87	121	140	490	
937-San Juan AR - Other	0	0	0	0	0	-5,111	-17	-5,094	-84	-10,189	-9,672	-9,672	-1,176	-41,014	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	0	5,126	48	5,141	147	10,283	9,826	9,885	1,423	41,878	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proj Net	0	0	0	0	0	5,126	48	5,141	147	10,283	9,826	9,885	1,423	41,878	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project 76116130	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
370-Outside Services	79,300	385,000	336,000	383,074	238,100	72,200	0	0	0	0	0	0	0	1,493,674
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	849	4,120	3,595	4,099	2,548	773	0	0	0	0	0	0	0	15,982
926-A and G Loads	1,879	9,125	7,963	9,079	5,643	1,711	0	0	0	0	0	0	0	35,400
928-AFUDC Debt Reg	374	369	858	1,348	1,774	1,993	0	0	0	0	0	0	0	6,716
929-AFUDC - Equity Regular	490	333	774	1,215	1,599	1,796	0	0	0	0	0	0	0	6,207
937-San Juan AR - Other	-41,014	-199,122	-173,779	-198,126	-123,145	-37,342	0	0	0	0	0	0	0	-772,528
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	41,878	199,824	175,411	200,689	126,519	41,131	0	0	0	0	0	0	0	785,452
825-Clearings	0	0	0	0	0	-785,452	0	0	0	0	0	0	0	-785,452
Clr Sum	0	0	0	0	0	-785,452	0	0	0	0	0	0	0	-785,452
Proj Net	41,878	199,824	175,411	200,689	126,519	-744,321	0	0	0	0	0	0	0	0

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Project No: 76116419 Unit 1 Boiler Outage - 2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

Construction Start Date 6/1/2017 Estimated Completion Date 4/30/2018

List Interim In-Service Dates

0

Project Need Justification

2018 outage scope includes work activities focused on reducing forced outages and complying with regulatory requirements such as the Mercury and Air Toxics Standards (MATS). Work scope includes replacement of "normal" wear components, replacement of components to improved boiler serviceability, reduce erosion, promote inspection capability, and boiler tube replacements to maintain pressure vessel code requirements. Components to be replace include but not limited to: expansion joints, burner assemblies, boiler tubes, and fuel transport components.

Project Alternatives

Alternatives investigated and evaluated include complete boiler section replacements, patching high wear areas and do nothing. These alternatives have been evaluated to either a higher cost, potential reduction in safety or a negative impact on reliability. The proposed scope is considered the best evaluated option.

Technical Aspects

Significant boiler repairs are a necessity throughout the industry to effectively maintain the serviceability and reliability of utility boilers. Specialized components, and repair processes are mandated by federal codes and standards such as pressure vessel codes, combustible dust standards, and environmental regulations. The work scope above includes repairs to meet these codes and standards.

Project Estimate Approach

These cost estimates are based quotes quotes/estimates reviewed by PNM subject matter experts and compared to quotes for similar work that has been done or is currently ongoing at PNM.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116419	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116419	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	9,700	9,800	19,500	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	104	105	209	
926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	230	232	462	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	7	20	26	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	9	26	34	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	-5,017	-5,069	-10,085	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	0	0	0	0	0	0	0	5,032	5,114	10,146	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	5,032	5,114	10,146	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project 76116419	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
370-Outside Services	19,500	0	336,656	863,906	338,438	0	0	0	0	0	0	0	0	1,558,500
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	209	0	3,602	9,244	3,621	0	0	0	0	0	0	0	0	16,676
926-A and G Loads	462	0	7,979	20,475	8,021	0	0	0	0	0	0	0	0	36,936
928-AFUDC Debt Reg	26	26	254	1,066	1,883	0	0	0	0	0	0	0	0	3,256
929-AFUDC - Equity Regular	34	24	229	961	1,698	0	0	0	0	0	0	0	0	2,946
937-San Juan AR - Other	-10,085	0	-174,119	-446,812	-175,040	0	0	0	0	0	0	0	0	-806,056
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	10,146	50	174,602	448,839	178,621	0	0	0	0	0	0	0	0	812,258
825-Clearings	0	0	0	0	-812,258	0	0	0	0	0	0	0	0	-812,258
Clr Sum	0	0	0	0	-812,258	0	0	0	0	0	0	0	0	-812,258
Proj Net	10,146	50	174,602	448,839	-633,637	0	0	0	0	0	0	0	0	0

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Project No: 76416116 Unit 4 Baghouse Bag Replacement - 2018

Company: 003-Bulk Power

Location: 764 San Juan

Project Information

Construction Start Date 3/1/2017

Estimated Completion Date 6/30/2018

List Interim In-Service Dates

0

Project Need Justification

The baghouse on San Juan Unit 4 is used to remove particulates created via the combustion process and is required for compliance purposes. Baghouse bags collect ash on their cloth film which is then captured by the pulsing of the bags using a pulse jet design with bags supported by cages. Over time these bags experience wear and tear due to repeated use. The standard life is 4-6 years based on operation and ash loading and those on Unit 4 are near the end of their useful life. This project would replace the bags in the baghouse during the 2018 scheduled outage with material purchases beginning in year 2017. This project is required to maintain compliance.

Project Alternatives

There are no alternatives to this project as the bags are needed to comply with regulations. The only alternatives that PNM has are in determining the type of bags that it will use. Though it could use lower quality bags (which are less expensive) their useful lives will be shorter and replacement will not coincide with established outage schedules.

Technical Aspects

This project would replace the existing bags with new bags. Project consists of removal of existing bags and cages, inspection of cage for repair or replacement, and installation of new bag on cage, and installation of bag within the compartment. Though partial bag replacements can occur while the unit is online, it would require a power derate, therefore PNM will replace the bags when the unit is in outage.

Project Estimate Approach

Project estimate is based on cost of previous projects. All baghouses at the station are of similar design with only size variations.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416116	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNM D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416116	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	9,850	9,850	9,850	29,550
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	105	105	105	316
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	233	233	233	700
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	9	26	43	77
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	11	34	56	101
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	-3,619	-3,619	-3,619	-10,857
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	6,590	6,629	6,669	19,889
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	6,590	6,629	6,669	19,889

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416116	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	29,550	0	1,620,000	41,000	234,000	30,500	500	0	0	0	0	0	0	1,955,550	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	316	0	17,334	439	2,504	326	5	0	0	0	0	0	0	20,924	
926-A and G Loads	700	0	38,394	972	5,546	723	12	0	0	0	0	0	0	46,347	
928-AFUDC Debt Reg	77	52	1,744	3,486	3,791	4,086	4,138	0	0	0	0	0	0	17,374	
929-AFUDC - Equity Regular	101	47	1,572	3,143	3,417	3,683	3,730	0	0	0	0	0	0	15,693	
937-San Juan AR - Other	-10,857	0	-380,441	-9,628	-54,953	-7,163	-117	0	0	0	0	0	0	-463,158	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	19,889	99	1,298,603	39,411	194,305	32,155	8,269	0	0	0	0	0	0	1,592,730	
825-Clearings	0	0	0	0	0	0	-1,592,730	0	0	0	0	0	0	-1,592,730	
Clr Sum	0	0	0	0	0	0	-1,592,730	0	0	0	0	0	0	-1,592,730	
Proj Net	19,889	99	1,298,603	39,411	194,305	32,155	-1,584,461	0	0	0	0	0	0	0	

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Project No: 76416216 Unit 4 Dewatering Bins - 2016

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 2/1/2016 Estimated Completion Date 11/30/2016

List Interim In-Service Dates

0

Project Need Justification

These units are used to remove the water from the wet bottom and flyash from the boilers. Metal in various sections of the Unit 4 flyash bins has worn thin, creating a structurally unsafe area. Due to the abrasive nature of the ash, the cone section and the discharge chutes of the Unit 4A and 4B dewatering bins have worn very thin and need to be replaced. This project will rebuild the two ash handling bins and replace worn structural areas. Cost was estimated based on vendor supplied budget quotes and previous installation experience. This estimate has the potential to increase depending on the condition of other components discovered during the project.

Project Alternatives

The only alternative would be to run the bins until failure and complete repairs at that time. This method would be high risk in relation to employee safety. For example, other plants have experienced collapses of dewatering bins.

Technical Aspects

Burning coal in the boiler creates significant amounts of ash. This ash drops down through the boiler into the ash pit which is filled with water. This ash/water mixture is sluiced with water into the flyash dewatering bins. As a result, ash can be removed and disposed of and water can be recycled back to the bottom ash process. Currently, holes exist in the high wear areas of the bins and create safety and operational issues. The internal screens are suspected to be deteriorated and not functioning correctly as well.

Project Estimate Approach

Cost was estimated based on vendor supplied budget quotes and previous installation experience. This estimate has the potential to increase depending on the condition of the equipment to be repaired.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416216	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	338,688			0	0	0	0	0	0	338,688		
370-Outside Services	494,395			287,250	284,750	284,750	284,750	139,875	0	1,775,770		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	1,462			0	0	0	0	0	0	1,462		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-5,494	-5,494	0	-10,988		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	24,519			0	0	0	0	0	0	24,519		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	15,856			3,074	3,047	3,047	3,047	1,497	0	29,567		
926-A and G Loads	19,779			6,808	6,749	6,749	6,749	3,315	0	50,147		
928-AFUDC Debt Reg	1,230			1,333	1,769	2,205	2,638	2,957	0	12,132		
929-AFUDC - Equity Regular	566			1,443	1,916	2,388	2,857	3,202	0	12,372		
937-San Juan AR - Other	-550,625			-105,535	-104,617	-104,617	-104,617	-51,390	0	-1,021,400		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	345,871			194,372	193,614	194,523	189,929	93,962	0	1,212,270		
825-Clearings	0			0	0	0	0	-1,361,897	0	-1,361,897		
Clr Sum	0			0	0	0	0	-1,361,897	0	-1,361,897		
Proj Net	345,871			194,372	193,614	194,523	189,929	-1,267,935	0	-149,627		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416216	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	338,688	0	0	0	0	0	0	0	0	0	0	0	0	338,688
	370-Outside Services	1,775,770	0	0	0	0	0	0	0	0	0	0	0	0	1,775,770
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	1,462	0	0	0	0	0	0	0	0	0	0	0	0	1,462
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-10,988	0	0	0	0	0	0	0	0	0	0	0	0	-10,988
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	24,519	0	0	0	0	0	0	0	0	0	0	0	0	24,519
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	29,567	0	0	0	0	0	0	0	0	0	0	0	0	29,567
	926-A and G Loads	50,147	0	0	0	0	0	0	0	0	0	0	0	0	50,147
	928-AFUDC Debt Reg	12,132	0	0	0	0	0	0	0	0	0	0	0	0	12,132
	929-AFUDC - Equity Regular	12,372	0	0	0	0	0	0	0	0	0	0	0	0	12,372
	937-San Juan AR - Other	-1,021,400	0	0	0	0	0	0	0	0	0	0	0	0	-1,021,400
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,212,270	0	0	0	0	0	0	0	0	0	0	0	0	1,212,270
	825-Clearings	-1,361,897	0	0	0	0	0	0	0	0	0	0	0	0	-1,361,897
	Clr Sum	-1,361,897	0	0	0	0	0	0	0	0	0	0	0	0	-1,361,897
	Proj Net	-149,627	0	0	0	0	0	0	0	0	0	0	0	0	-149,627

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416216	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	338,688	0	0	0	0	0	0	0	0	0	0	0	0	338,688
	370-Outside Services	1,775,770	0	0	0	0	0	0	0	0	0	0	0	0	1,775,770
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	1,462	0	0	0	0	0	0	0	0	0	0	0	0	1,462
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-10,988	0	0	0	0	0	0	0	0	0	0	0	0	-10,988
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	24,519	0	0	0	0	0	0	0	0	0	0	0	0	24,519
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	29,567	0	0	0	0	0	0	0	0	0	0	0	0	29,567
	926-A and G Loads	50,147	0	0	0	0	0	0	0	0	0	0	0	0	50,147
	928-AFUDC Debt Reg	12,132	0	0	0	0	0	0	0	0	0	0	0	0	12,132
	929-AFUDC - Equity Regular	12,372	0	0	0	0	0	0	0	0	0	0	0	0	12,372
	937-San Juan AR - Other	-1,021,400	0	0	0	0	0	0	0	0	0	0	0	0	-1,021,400
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,212,270	0	0	0	0	0	0	0	0	0	0	0	0	1,212,270
	825-Clearings	-1,361,897	0	0	0	0	0	0	0	0	0	0	0	0	-1,361,897
	Clr Sum	-1,361,897	0	0	0	0	0	0	0	0	0	0	0	0	-1,361,897
	Proj Net	-149,627	0	0	0	0	0	0	0	0	0	0	0	0	-149,627

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Project No: 76416218 Unit 4 Boiler Outage - 2018

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 4/1/2017 Estimated Completion Date 5/31/2018

List Interim In-Service Dates
N/A

Project Need Justification

2018 outage scope includes work activities focused on reducing forced outages and complying with regulatory requirements such as the Mercury and Air Toxics Standards (MATS). Work scope includes replacement of "normal" wear components, replacement of components to improved boiler serviceability, reduce erosion, promote inspection capability, and boiler tube replacements to maintain pressure vessel code requirements. Components to be replaced include but not limited to: expansion joints, burner assemblies, boiler tubes, and fuel transport components.

Project Alternatives

Alternatives investigated and evaluated include complete boiler section replacements, patching high wear areas and do nothing. These alternatives have been evaluated to either a higher cost, potential reduction in safety or a negative impact on reliability. The proposed scope is considered the best evaluated option.

Technical Aspects

Significant boiler repairs are a necessity throughout the industry to effectively maintain the serviceability and reliability of utility boilers. Specialized components, and repair processes are mandated by federal codes and standards such as pressure vessel codes, combustible dust standards, and environmental regulations. The work scope above includes repairs to meet these codes and standards.

Project Estimate Approach

Work scope is estimates based on vendor supplied quotes and installation contractor estimates. These quotes/estimates were reviewed by PNM subject matter experts and compared to quotes for similar work that has been done or is currently ongoing at PNM.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416218	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416218	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	19,400	19,400	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	208	208	
926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	460	460	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	17	17	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	22	22	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	-7,128	-7,128	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	12,979	12,979	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	12,979	12,979	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416218	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	19,400	338,000	336,000	363,000	346,000	194,000	0	0	0	0	0	0	0	1,596,400
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non	Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	208	3,617	3,595	3,884	3,702	2,076	0	0	0	0	0	0	0	17,081
	926-A and G Loads	460	8,011	7,963	8,603	8,200	4,598	0	0	0	0	0	0	0	37,835
	928-AFUDC Debt Reg	17	387	1,092	1,828	2,577	3,153	0	0	0	0	0	0	0	9,054
	929-AFUDC - Equity Regular	22	349	985	1,647	2,323	2,843	0	0	0	0	0	0	0	8,168
	937-San Juan AR - Other	-7,128	-79,376	-78,906	-85,247	-81,255	-45,559	0	0	0	0	0	0	0	-377,470
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	12,979	270,987	270,729	293,715	281,548	161,111	0	0	0	0	0	0	0	1,291,069
	825-Clearings	0	0	0	0	0	-1,291,069	0	0	0	0	0	0	0	-1,291,069
	Clr Sum	0	0	0	0	0	-1,291,069	0	0	0	0	0	0	0	-1,291,069
	Proj Net	12,979	270,987	270,729	293,715	281,548	-1,129,958	0	0	0	0	0	0	0	0

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Project No: 76416817 Unit 4 Absorber Double Head Spray Nozzle and Tray Upgrade

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 6/30/2018

List Interim In-Service Dates

N/A

Project Need Justification

As of 2015, San Juan Generating Station Unit 4 has been subject to more stringent sulfur dioxide (SO₂) emissions limits and at its current design has reached those limits. This is especially problematic with the forecasted increase in sulfur content in coal. This results in the system operating with minimal margins. This project looks to install additional double spray nozzles to replace the current single nozzles, which would allow for more slurry-to-gas reaction and increase SO₂ removal efficiency.

Project Alternatives

One alternative is to do nothing and would result in a significant de-rating of the unit. Also, a reduction in generation output would be necessary to comply with emissions standards. Another alternative is to install a second sieve tray in the system. This option is functionally viable on Unit 4 at first glance but is the higher cost option compared to other options. However, if the sulfur content in the supplied coal increases higher than expected, a second sieve tray may need to be considered. Lastly, there is the option to install a fourth absorber cell on the system, but because of its high cost, this option was not considered.

Technical Aspects

The spray nozzles distribute a limestone slurry in the absorber cell in ensure proper liquid-to-gas contact and increase SO₂ removal. This project will replace the nozzles with a double nozzle design to increase the spray system effectiveness. Work will consist of engineering design of the nozzles to ensure contact and to match the pump performance curves, fabrication of the nozzles, installation of scaffolding to the existing nozzles, removal of the existing nozzles, installation of the new nozzles, and removal of access. Also, the inlet screens will be evaluated by engineering to ensure proper sizing. This is an outage required task with installation scheduled for the 2018 outage and engineering design and material purchasing taking place in 2017.

Project Estimate Approach

Estimate is based on vendor supplied quotes and installation contractor estimates. These quotes/estimates were reviewed by PNM subject matter experts and compared to quotes for similar work that has been done or is currently ongoing at PNM. After this review, the vendor(s) that provide estimates that address the scope of this project and that are in line with past expenditures are selected.

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416817	Year	2016								
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0			0	0	0	0	0	0	0	
120-Overtime-General	0			0	0	0	0	0	0	0	
350-Material Issues-Major	0			0	0	0	0	0	0	0	
370-Outside Services	0			0	0	0	0	0	0	0	
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	
530-Employee Expense	0			0	0	0	0	0	0	0	
610-Expenses - General	0			0	0	0	0	0	0	0	
805-Land and Land Rights	0			0	0	0	0	0	0	0	
807-Non Refundable Contribution	0			0	0	0	0	0	0	0	
829-Construction Adjustment	0			0	0	0	0	0	0	0	
426-Capitalized Interest	0			0	0	0	0	0	0	0	
908-Luna AR - Labor	0			0	0	0	0	0	0	0	
909-Luna AR - Other	0			0	0	0	0	0	0	0	
913-Payroll Taxes Load	0			0	0	0	0	0	0	0	
914-Pension and Benefits Load	0			0	0	0	0	0	0	0	
915-Injuries and Damages Load	0			0	0	0	0	0	0	0	
918-San Juan AR-Labor	0			0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0	
922-Minor Material Load	0			0	0	0	0	0	0	0	
925-E and S Loads	0			0	0	0	0	0	0	0	
926-A and G Loads	0			0	0	0	0	0	0	0	
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0	
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0	
937-San Juan AR - Other	0			0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	
Cost Sum	0			0	0	0	0	0	0	0	
825-Clearings	0			0	0	0	0	0	0	0	
Clr Sum	0			0	0	0	0	0	0	0	
Proj Net	0			0	0	0	0	0	0	0	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416817	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	9,700	0	0	18,750	0	289,000	114,000	46,500	477,950
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	104	0	0	201	0	3,092	1,220	498	5,114
	926-A and G Loads	0	0	0	0	0	230	0	0	444	0	6,849	2,702	1,102	11,327
	928-AFUDC Debt Reg	0	0	0	0	0	8	17	17	33	50	301	654	797	1,878
	929-AFUDC - Equity Regular	0	0	0	0	0	11	22	22	44	65	395	857	1,045	2,463
	937-San Juan AR - Other	0	0	0	0	0	-3,564	0	0	-6,889	0	-106,178	-41,883	-17,084	-175,598
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	6,489	39	39	12,584	115	193,460	77,549	32,858	323,134
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	6,489	39	39	12,584	115	193,460	77,549	32,858	323,134

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416817	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	477,950	36,000	239,000	431,000	139,000	42,000	4,000	0	0	0	0	0	0	1,368,950
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	5,114	385	2,557	4,612	1,487	449	43	0	0	0	0	0	0	14,648
	926-A and G Loads	11,327	853	5,664	10,215	3,294	995	95	0	0	0	0	0	0	32,444
	928-AFUDC Debt Reg	1,878	881	1,173	1,878	2,483	2,684	2,745	0	0	0	0	0	0	13,722
	929-AFUDC - Equity Regular	2,463	795	1,057	1,693	2,238	2,419	2,475	0	0	0	0	0	0	13,140
	937-San Juan AR - Other	-175,598	-8,454	-56,127	-101,216	-32,643	-9,863	-939	0	0	0	0	0	0	-384,840
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	323,134	30,460	193,325	348,182	115,860	38,685	8,418	0	0	0	0	0	0	1,058,064
	825-Clearings	0	0	0	0	0	0	-1,058,064	0	0	0	0	0	0	-1,058,064
	Clr Sum	0	0	0	0	0	0	-1,058,064	0	0	0	0	0	0	-1,058,064
	Proj Net	323,134	30,460	193,325	348,182	115,860	38,685	-1,049,646	0	0	0	0	0	0	0

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Project No: 76616416 Common Lake Station Switchgear - 2016

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 1/15/2016 Estimated Completion Date 12/31/2016

List Interim In-Service Dates

0

Project Need Justification

The Lake Station's purpose is to provide makeup water to the power plant. The existing switchgear at the lake station is the original equipment. Not only is the equipment obsolete, but no spare parts are available and it does not meet current safety arch flash requirements. This project will install new switchgear and variable speed drives on the pumps. A new building must be built alongside existing infrastructure to maintain operation of necessary equipment during the commissioning and startup phase of the project.

Project Alternatives

The only alternative is to not replace the unit, which poses a high safety and operational risk.

Technical Aspects

The lake station contains the pumps which move makeup water from the plant pond to the plant. Makeup water is essential to the plant. In the best scenario the plant can run for 30 minutes before requiring derates if the lake station is lost. This new switchgear meets current arch flash requirements to ensure the safety of plant personnel. This new equipment must be built in parallel to operating equipment and be able to cut over during short duration outages.

Project Estimate Approach

Estimate is based on vendor supplied quotes and installation contractor estimates. These quotes/estimates were reviewed by PNM subject matter experts and compared to quotes for similar work that has been done or is currently ongoing at PNM. After this review, the vendor(s) that provide estimates that address the scope of this project and that are in line with past expenditures are selected.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76616416	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	8,154			0	0	0	0	0	0	8,154		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	149,832			0	0	0	0	0	0	149,832		
370-Outside Services	28,000			383,400	383,400	479,250	287,550	120,000	250	1,681,850		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-4,458	-4,458	-4,458	-13,373		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	631			0	0	0	0	0	0	631		
914-Pension and Benefits Load	1,772			0	0	0	0	0	0	1,772		
915-Injuries and Damages Load	300			0	0	0	0	0	0	300		
918-San Juan AR-Labor	-5,943			0	0	0	0	0	0	-5,943		
921-Stores / Purchasing Load	1,226			0	0	0	0	0	0	1,226		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	3,611			4,102	4,102	5,128	3,077	1,284	3	21,308		
926-A and G Loads	4,441			9,087	9,087	11,358	6,815	2,844	6	43,637		
928-AFUDC Debt Reg	337			491	1,018	1,613	2,140	2,419	2,502	10,521		
929-AFUDC - Equity Regular	157			532	1,103	1,747	2,318	2,619	2,710	11,186		
937-San Juan AR - Other	-92,210			-163,906	-163,906	-204,883	-122,930	-51,301	-107	-799,243		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	100,307			233,706	234,804	294,213	174,512	73,408	906	1,111,856		
825-Clearings	0			0	0	0	0	0	-1,113,243	-1,113,243		
Clr Sum	0			0	0	0	0	0	-1,113,243	-1,113,243		
Proj Net	100,307			233,706	234,804	294,213	174,512	73,408	-1,112,336	-1,386		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76616416	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	8,154	0	0	0	0	0	0	0	0	0	0	0	0	8,154
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	149,832	0	0	0	0	0	0	0	0	0	0	0	0	149,832
	370-Outside Services	1,681,850	0	0	0	0	0	0	0	0	0	0	0	0	1,681,850
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-13,373	0	0	0	0	0	0	0	0	0	0	0	0	-13,373
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	631	0	0	0	0	0	0	0	0	0	0	0	0	631
	914-Pension and Benefits Load	1,772	0	0	0	0	0	0	0	0	0	0	0	0	1,772
	915-Injuries and Damages Load	300	0	0	0	0	0	0	0	0	0	0	0	0	300
	918-San Juan AR-Labor	-5,943	0	0	0	0	0	0	0	0	0	0	0	0	-5,943
	921-Stores / Purchasing Load	1,226	0	0	0	0	0	0	0	0	0	0	0	0	1,226
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	21,308	0	0	0	0	0	0	0	0	0	0	0	0	21,308
	926-A and G Loads	43,637	0	0	0	0	0	0	0	0	0	0	0	0	43,637
	928-AFUDC Debt Reg	10,521	0	0	0	0	0	0	0	0	0	0	0	0	10,521
	929-AFUDC - Equity Regular	11,186	0	0	0	0	0	0	0	0	0	0	0	0	11,186
	937-San Juan AR - Other	-799,243	0	0	0	0	0	0	0	0	0	0	0	0	-799,243
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,111,856	0	0	0	0	0	0	0	0	0	0	0	0	1,111,856
	825-Clearings	-1,113,243	0	0	0	0	0	0	0	0	0	0	0	0	-1,113,243
	Clr Sum	-1,113,243	0	0	0	0	0	0	0	0	0	0	0	0	-1,113,243
	Proj Net	-1,386	0	0	0	0	0	0	0	0	0	0	0	0	-1,386

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76616416	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	8,154	0	0	0	0	0	0	0	0	0	0	0	0	8,154
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	149,832	0	0	0	0	0	0	0	0	0	0	0	0	149,832
	370-Outside Services	1,681,850	0	0	0	0	0	0	0	0	0	0	0	0	1,681,850
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-13,373	0	0	0	0	0	0	0	0	0	0	0	0	-13,373
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	631	0	0	0	0	0	0	0	0	0	0	0	0	631
	914-Pension and Benefits Load	1,772	0	0	0	0	0	0	0	0	0	0	0	0	1,772
	915-Injuries and Damages Load	300	0	0	0	0	0	0	0	0	0	0	0	0	300
	918-San Juan AR-Labor	-5,943	0	0	0	0	0	0	0	0	0	0	0	0	-5,943
	921-Stores / Purchasing Load	1,226	0	0	0	0	0	0	0	0	0	0	0	0	1,226
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	21,308	0	0	0	0	0	0	0	0	0	0	0	0	21,308
	926-A and G Loads	43,637	0	0	0	0	0	0	0	0	0	0	0	0	43,637
	928-AFUDC Debt Reg	10,521	0	0	0	0	0	0	0	0	0	0	0	0	10,521
	929-AFUDC - Equity Regular	11,186	0	0	0	0	0	0	0	0	0	0	0	0	11,186
	937-San Juan AR - Other	-799,243	0	0	0	0	0	0	0	0	0	0	0	0	-799,243
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,111,856	0	0	0	0	0	0	0	0	0	0	0	0	1,111,856
	825-Clearings	-1,113,243	0	0	0	0	0	0	0	0	0	0	0	0	-1,113,243
	Clr Sum	-1,113,243	0	0	0	0	0	0	0	0	0	0	0	0	-1,113,243
	Proj Net	-1,386	0	0	0	0	0	0	0	0	0	0	0	0	-1,386

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Project No: 76616418 Common System Support - Retirements (58.671% PNM) - 2018

Company: 003-Bulk Power

Location: 766 San Juan

Project Information

Construction Start Date 1/15/2018

Estimated Completion Date 5/31/2018

List Interim In-Service Dates

N/A

Project Need Justification

This project will complete the retirement process for Units 2 and 3 ownership that is continuing on with the San Juan Project. Work scope is focused on minimal activities to ensure all environmental risks are minimized, electrical equipment is safely isolated, and fuel handling systems are isolated to Units 2 and 3.

Project Alternatives

There is no other alternative to this project. This project addresses the Consent Decree requirement to retire Units 2 and 3. The minimal activities done with this project meet that requirement.

Technical Aspects

No significant technical aspects. Site evaluation will identify equipment to be isolated, drained, retired, and rendered non-useful.

Project Estimate Approach

Project estimate is based on plus or minus 25% for decision making. The approach will be to utilize site resources as much as possible.

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76616418	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76616418	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76616418	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	387,000	722,000	720,000	523,000	39,500	0	0	0	0	0	0	0	2,391,500
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	4,141	7,725	7,704	5,596	423	0	0	0	0	0	0	0	25,589
	926-A and G Loads	0	9,172	17,111	17,064	12,395	936	0	0	0	0	0	0	0	56,679
	928-AFUDC Debt Reg	0	347	1,342	2,641	3,768	4,291	0	0	0	0	0	0	0	12,389
	929-AFUDC - Equity Regular	0	313	1,210	2,381	3,397	3,868	0	0	0	0	0	0	0	11,168
	937-San Juan AR - Other	0	-134,729	-251,355	-250,659	-182,076	-13,751	0	0	0	0	0	0	0	-832,571
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	266,243	498,034	499,131	366,080	35,266	0	0	0	0	0	0	0	1,664,753
	825-Clearings	0	0	0	0	0	-1,664,753	0	0	0	0	0	0	0	-1,664,753
	Clr Sum	0	0	0	0	0	-1,664,753	0	0	0	0	0	0	0	-1,664,753
	Proj Net	0	266,243	498,034	499,131	366,080	-1,629,487	0	0	0	0	0	0	0	0

Project No: 76616516 Common North Side Evaporation Pond Remediation - Carryover - 2017

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 2/1/2016 Estimated Completion Date 7/31/2017

List Interim In-Service Dates
0

Project Need Justification

This project continues work that began in 2016 for the closure of the two remaining north side evaporation ponds (ponds N2 and N3). As a zero discharge facility, the evaporation ponds are used to collect any plant discharge that cannot be reprocessed. This discharge waste is carried to the ponds by water which must then be evaporated off. The N2 and N3 ponds have been in use for several years and have reached their maximum capacity. This project is consistent with PNM's evaporation pond closure plan and has been reviewed and scoped by a third-party engineering firm. It is currently in the execution phase.

Project Alternatives

The only alternative would be to postpone the closing of the pond but it eventually must be done in accordance with the pond closure plan.

Technical Aspects

The evaporation ponds are used to collect plant discharge waste that cannot be reprocessed. Ponds are closed once they are full of material and water has evaporate off. Project involves drying the pond surface water, increasing the slope of the pond containment walls and adding material to the side walls, filling and capping the pond with state-approved fill material, and planting with native vegetation and other erosion protection drainage debris and rock.

Project Estimate Approach

Project estimate is based on third party engineer estimates and including PNM construction management support. Bids will be received from qualified bidders and evaluated based on scope adherence, cost, quality, safety record, etc.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76616516	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			19,000	19,000	14,250	9,500	288,500	288,500	638,750		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-445	-445	-445	-1,336		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			203	203	152	102	3,087	3,087	6,835		
926-A and G Loads	0			450	450	338	225	6,837	6,837	15,138		
928-AFUDC Debt Reg	0			147	174	197	214	418	813	1,962		
929-AFUDC - Equity Regular	0			159	188	213	231	452	881	2,125		
937-San Juan AR - Other	0			-8,123	-8,123	-6,092	-4,061	-123,336	-123,336	-273,070		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			11,837	11,892	9,059	5,765	175,513	176,337	390,404		
825-Clearings	0			0	0	0	0	0	-449,782	-449,782		
Clr Sum	0			0	0	0	0	0	-449,782	-449,782		
Proj Net	0			11,837	11,892	9,059	5,765	175,513	-273,445	-59,379		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76616516	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	638,750	98,500	189,500	189,500	189,500	189,500	143,750	143,750	0	0	0	0	0	1,782,750
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-1,336	-180	-180	0	0	0	0	0	0	0	0	0	0	-1,695
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	6,835	1,054	2,028	2,028	2,028	2,028	1,538	1,538	0	0	0	0	0	19,075
	926-A and G Loads	15,138	2,334	4,491	4,491	4,491	4,491	3,407	3,407	0	0	0	0	0	42,251
	928-AFUDC Debt Reg	1,962	78	305	607	910	1,216	1,486	1,723	0	0	0	0	0	8,287
	929-AFUDC - Equity Regular	2,125	102	401	796	1,194	1,594	1,950	2,260	0	0	0	0	0	10,421
	937-San Juan AR - Other	-273,070	-42,109	-81,013	-81,013	-81,013	-81,013	-61,454	-61,454	0	0	0	0	0	-762,138
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	390,404	59,779	115,533	116,409	117,111	117,816	90,677	91,224	0	0	0	0	0	1,098,952
	825-Clearings	-449,782	0	0	0	0	0	0	-708,548	0	0	0	0	0	-1,158,331
	Clr Sum	-449,782	0	0	0	0	0	0	-708,548	0	0	0	0	0	-1,158,331
	Proj Net	-59,379	59,779	115,533	116,409	117,111	117,816	90,677	-617,325	0	0	0	0	0	-59,379

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76616516	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	1,782,750	0	0	0	0	0	0	0	0	0	0	0	0	1,782,750
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-1,695	0	0	0	0	0	0	0	0	0	0	0	0	-1,695
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	19,075	0	0	0	0	0	0	0	0	0	0	0	0	19,075
	926-A and G Loads	42,251	0	0	0	0	0	0	0	0	0	0	0	0	42,251
	928-AFUDC Debt Reg	8,287	0	0	0	0	0	0	0	0	0	0	0	0	8,287
	929-AFUDC - Equity Regular	10,421	0	0	0	0	0	0	0	0	0	0	0	0	10,421
	937-San Juan AR - Other	-762,138	0	0	0	0	0	0	0	0	0	0	0	0	-762,138
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,098,952	0	0	0	0	0	0	0	0	0	0	0	0	1,098,952
	825-Clearings	-1,158,331	0	0	0	0	0	0	0	0	0	0	0	0	-1,158,331
	Clr Sum	-1,158,331	0	0	0	0	0	0	0	0	0	0	0	0	-1,158,331
	Proj Net	-59,379	0	0	0	0	0	0	0	0	0	0	0	0	-59,379

Project No: 76616917 Common Auxiliary Boiler - 2018

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 8/1/2016 Estimated Completion Date 12/31/2017

List Interim In-Service Dates

0

Project Need Justification

This project would install infrastructure necessary to receive an rental auxiliary boiler including foundations, exhaust stack, and fuel ad steam connections. Project is required to minimize risk of significant equipment freeze ups which would directly affect the units' reliability. The boiler will be sized to handle heating steam and key-process steam needs.

Project Alternatives

Alternatives considered included purchase of an auxiliary boiler in this configuration. However, the lowest evaluated cost alternative was to engineer a rental option.

Technical Aspects

An engineering firm will aid in the design and sizing of the boiler, permitting of the boiler, water piping supply and return, controls, steam piping and tie-ins, testing and commissioning of the system.

Project Estimate Approach

Project estimates are based on a contract engineering estimate for equipment supply, rental options and construction estimates including start up and commissioning activities.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76616917	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76616917	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	665,000	665,000	475,000	475,000	380,000	380,000	527,250	665,000	950,000	1,906,800	1,906,800	1,906,800	10,902,650	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	7,116	7,116	5,083	5,083	4,066	4,066	5,642	7,116	10,165	20,403	20,403	20,403	116,658	
926-A and G Loads	0	15,761	15,761	11,258	11,258	9,006	9,006	12,496	15,761	22,515	45,191	45,191	45,191	258,393	
928-AFUDC Debt Reg	0	526	1,581	2,492	3,259	3,955	4,580	5,325	6,300	7,616	9,921	12,997	16,092	74,644	
929-AFUDC - Equity Regular	0	690	2,074	3,269	4,275	5,187	6,007	6,985	8,264	9,989	13,013	17,048	21,108	97,909	
937-San Juan AR - Other	0	-284,292	-284,292	-203,066	-203,066	-162,453	-162,453	-225,403	-284,292	-406,132	-815,171	-815,171	-815,171	-4,660,961	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	404,800	407,239	294,036	295,808	239,761	241,206	332,294	418,148	594,153	1,180,157	1,187,269	1,194,423	6,789,293	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-6,789,293	-6,789,293	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-6,789,293	-6,789,293	
Proj Net	0	404,800	407,239	294,036	295,808	239,761	241,206	332,294	418,148	594,153	1,180,157	1,187,269	-5,594,870	0	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76616917	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	10,902,650	0	0	0	0	0	0	0	0	0	0	0	0	10,902,650
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	116,658	0	0	0	0	0	0	0	0	0	0	0	0	116,658
	926-A and G Loads	258,393	0	0	0	0	0	0	0	0	0	0	0	0	258,393
	928-AFUDC Debt Reg	74,644	0	0	0	0	0	0	0	0	0	0	0	0	74,644
	929-AFUDC - Equity Regular	97,909	0	0	0	0	0	0	0	0	0	0	0	0	97,909
	937-San Juan AR - Other	-4,660,961	0	0	0	0	0	0	0	0	0	0	0	0	-4,660,961
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	6,789,293	0	0	0	0	0	0	0	0	0	0	0	0	6,789,293
	825-Clearings	-6,789,293	0	0	0	0	0	0	0	0	0	0	0	0	-6,789,293
	Clr Sum	-6,789,293	0	0	0	0	0	0	0	0	0	0	0	0	-6,789,293
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project No: 76617016 Common Reconfiguration Engineering - Carryover

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

<u>Construction Start Date</u>	1/1/2017	<u>Estimated Completion Date</u>	2/28/2019
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

As a result of the retirement of Units 2 and 3 at the San Juan generating station, several reconfiguration projects are needed to safely and reliably operate the remaining Units (1 and 4). The reconfiguration will consolidate designs to reduce cost, maintain redundancy, and reduce risks to each unit's production loss. Key improvements will be the installation of critical steam, electrical, and water cross ties. In addition, an evaluation will be performed to determine if it is possible to consolidate key processes including soot blowing air and demineralized water. A third party engineering firm has begun the design review process (which will include cost estimates) to support the decision making and path forward. These projects are necessary to maintain the reliability of the two remaining units.

Project Alternatives

Each system was evaluated for viability on a case by case basis. This review was completed by several departments (Operations, Maintenance, and Engineering). Alternatives were considered for each system and selected based on safety, compliance, reliability, and cost.

Technical Aspects

When the plant was originally designed, it was built to share various systems. However, each system (steam, air, water and electrical power) has its own technical aspects in terms of piping, permitting, process review, electrical review, and design.

Project Estimate Approach

Project estimate is based on the evaluation of each project in relation to the overall project. To date, a third party engineering firm has provided estimates, including staffing requirements. These items will be further evaluated during the bidding process.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617016	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	7,065			0	0	0	0	0	0	7,065		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	319,879			239,000	239,000	191,000	239,000	274,000	361,000	1,862,879		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-3,097	-3,097	-3,097	-9,291		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	546			0	0	0	0	0	0	546		
914-Pension and Benefits Load	1,890			0	0	0	0	0	0	1,890		
915-Injuries and Damages Load	260			0	0	0	0	0	0	260		
918-San Juan AR-Labor	-5,325			0	0	0	0	0	0	-5,325		
921-Stores / Purchasing Load	2,015			0	0	0	0	0	0	2,015		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	6,292			2,557	2,557	2,044	2,557	2,932	3,863	22,802		
926-A and G Loads	7,784			5,664	5,664	4,527	5,664	6,494	8,556	44,353		
928-AFUDC Debt Reg	591			563	892	1,191	1,487	1,838	2,274	8,835		
929-AFUDC - Equity Regular	273			609	966	1,289	1,610	1,990	2,462	9,201		
937-San Juan AR - Other	-165,633			-102,174	-102,174	-81,654	-102,174	-117,137	-154,330	-825,277		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	175,637			146,219	146,906	118,396	145,047	167,020	220,727	1,119,953		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	175,637			146,219	146,906	118,396	145,047	167,020	220,727	1,119,953		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617016	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,065	0	0	0	0	0	0	0	0	0	0	0	0	7,065
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	1,862,879	0	0	0	0	0	0	0	0	0	0	0	0	1,862,879
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-9,291	-3,972	0	0	0	0	0	0	0	0	0	0	0	-13,263
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	546	0	0	0	0	0	0	0	0	0	0	0	0	546
	914-Pension and Benefits Load	1,890	0	0	0	0	0	0	0	0	0	0	0	0	1,890
	915-Injuries and Damages Load	260	0	0	0	0	0	0	0	0	0	0	0	0	260
	918-San Juan AR-Labor	-5,325	0	0	0	0	0	0	0	0	0	0	0	0	-5,325
	921-Stores / Purchasing Load	2,015	0	0	0	0	0	0	0	0	0	0	0	0	2,015
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	22,802	0	0	0	0	0	0	0	0	0	0	0	0	22,802
	926-A and G Loads	44,353	0	0	0	0	0	0	0	0	0	0	0	0	44,353
	928-AFUDC Debt Reg	8,835	2,918	0	0	0	0	0	0	0	0	0	0	0	11,753
	929-AFUDC - Equity Regular	9,201	3,828	0	0	0	0	0	0	0	0	0	0	0	13,028
	937-San Juan AR - Other	-825,277	0	0	0	0	0	0	0	0	0	0	0	0	-825,277
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,119,953	2,774	0	0	0	0	0	0	0	0	0	0	0	1,122,727
	825-Clearings	0	-1,124,217	0	0	0	0	0	0	0	0	0	0	0	-1,124,217
	Clr Sum	0	-1,124,217	0	0	0	0	0	0	0	0	0	0	0	-1,124,217
	Proj Net	1,119,953	-1,121,444	0	0	0	0	0	0	0	0	0	0	0	-1,491

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617016	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,065	0	0	0	0	0	0	0	0	0	0	0	0	7,065
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	1,862,879	0	0	0	0	0	0	240,000	240,000	380,000	480,000	91,000	95,742	3,389,621
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-13,263	0	0	0	0	0	0	0	0	0	0	0	0	-13,263
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	546	0	0	0	0	0	0	0	0	0	0	0	0	546
	914-Pension and Benefits Load	1,890	0	0	0	0	0	0	0	0	0	0	0	0	1,890
	915-Injuries and Damages Load	260	0	0	0	0	0	0	0	0	0	0	0	0	260
	918-San Juan AR-Labor	-5,325	0	0	0	0	0	0	0	0	0	0	0	0	-5,325
	921-Stores / Purchasing Load	2,015	0	0	0	0	0	0	0	0	0	0	0	0	2,015
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	22,802	0	0	0	0	0	0	2,568	2,568	4,066	5,136	974	1,024	39,138
	926-A and G Loads	44,353	0	0	0	0	0	0	5,688	5,688	9,006	11,376	2,157	2,269	80,537
	928-AFUDC Debt Reg	11,753	0	0	0	0	0	0	215	646	1,205	1,982	2,503	2,683	20,987
	929-AFUDC - Equity Regular	13,028	0	0	0	0	0	0	194	583	1,086	1,786	2,256	2,419	21,352
	937-San Juan AR - Other	-825,277	0	0	0	0	0	0	-83,553	-83,553	-132,292	-167,106	-31,681	-33,331	-1,356,793
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,122,727	0	0	0	0	0	0	165,112	165,932	263,071	333,174	67,209	70,806	2,188,030
	825-Clearings	-1,124,217	0	0	0	0	0	0	0	0	0	0	0	0	-1,124,217
	Clr Sum	-1,124,217	0	0	0	0	0	0	0	0	0	0	0	0	-1,124,217
	Proj Net	-1,491	0	0	0	0	0	0	165,112	165,932	263,071	333,174	67,209	70,806	1,063,813

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Project No: 76617109 Common Lake Station Switchgear

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 8/3/2015 Estimated Completion Date 10/31/2016

List Interim In-Service Dates

N/A

Project Need Justification

This project replaces critical equipment necessary to sustain unit reliability, address equipment obsolescence and ensure the safety of employees from electrocution. The existing equipment, despite being over 50 years old, provides power for electric motors which drive the pumps supplying water to San Juan Station. While there is redundancy in both the pumps and the electrical gear, the system is designed in a manner that does not permit maintenance on the electrical equipment without a complete system shutdown. Due to this and limited opportunities to take the system out of service, maintenance on the electrical equipment has been inadequate. The electrical equipment is in poor condition and replacement parts are difficult to locate. This project will redesign the electrical system such that it will comply with current codes and can be segregated for maintenance without reducing the reliability of the water supply system.

Project Alternatives

As this is an obsolescence issue, there are no viable alternatives other than to replace the existing equipment with more modern, industry supported equipment. Other vendors were initially considered but Burns & McDonnell was selected as the most appropriate considering their experience and quality of work from their prior projects.

Technical Aspects

The scope of work includes replacing the existing 6900-volt electrical switchgear with like equipment and will correct current electric code issues within the existing equipment. The new equipment is larger and produces more heat than the existing equipment so a larger enclosure and additional heating, ventilation and air conditioning (HVAC) equipment is included in the project scope. Materials for the new equipment includes two 6900-volt switchgear modules, maintenance switches, a direct current (DC) battery system (for tripping voltage and control) and an enclosure to house all new equipment. In addition, variable frequency drives (VFDs) will be installed to increase the energy efficiency of the driven equipment (pumps).

Project Estimate Approach

The cost estimate for the project was developed by a third party engineering company (Burns & McDonnell) who developed the conceptual scope for the project and who has executed many projects of similar nature. The breakdown of the estimated cost is 30% equipment and construction materials, 23%

engineering and project management, 40% construction labor, 5% general and administrative overheads and 2% allowance for funds used during construction (AFUDC). This project is still in the engineering phase and a scope of work for construction services will be issued for competitive bids.

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617109	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	28,986			0	0	0	0	0	0	28,986		
120-Overtime-General	1,181			0	0	0	0	0	0	1,181		
350-Material Issues-Major	1,247,455			0	0	0	0	0	0	1,247,455		
370-Outside Services	598,512			0	36,250	0	32,000	0	0	666,762		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	3,141			0	0	0	0	0	0	3,141		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-5,177	0	0	-5,177		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	2,359			0	0	0	0	0	0	2,359		
914-Pension and Benefits Load	10,835			0	0	0	0	0	0	10,835		
915-Injuries and Damages Load	928			0	0	0	0	0	0	928		
918-San Juan AR-Labor	-26,160			0	0	0	0	0	0	-26,160		
921-Stores / Purchasing Load	12,880			0	0	0	0	0	0	12,880		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	5,858			0	388	0	342	0	0	6,588		
926-A and G Loads	44,764			0	859	0	758	0	0	46,381		
928-AFUDC Debt Reg	66,277			2,386	2,422	2,458	2,485	0	0	76,027		
929-AFUDC - Equity Regular	91,043			2,584	2,623	2,662	2,692	0	0	101,602		
937-San Juan AR - Other	-1,034,051			0	-15,497	0	-13,680	0	0	-1,063,228		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	1,054,008			4,969	27,044	5,120	19,421	0	0	1,110,561		
825-Clearings	0			0	0	0	-1,114,987	0	0	-1,114,987		
Clr Sum	0			0	0	0	-1,114,987	0	0	-1,114,987		
Proj Net	1,054,008			4,969	27,044	5,120	-1,095,567	0	0	-4,426		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617109	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	28,986	0	0	0	0	0	0	0	0	0	0	0	0	28,986
	120-Overtime-General	1,181	0	0	0	0	0	0	0	0	0	0	0	0	1,181
	350-Material Issues-Major	1,247,455	0	0	0	0	0	0	0	0	0	0	0	0	1,247,455
	370-Outside Services	666,762	0	0	0	0	0	0	0	0	0	0	0	0	666,762
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	3,141	0	0	0	0	0	0	0	0	0	0	0	0	3,141
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-5,177	0	0	0	0	0	0	0	0	0	0	0	0	-5,177
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	2,359	0	0	0	0	0	0	0	0	0	0	0	0	2,359
	914-Pension and Benefits Load	10,835	0	0	0	0	0	0	0	0	0	0	0	0	10,835
	915-Injuries and Damages Load	928	0	0	0	0	0	0	0	0	0	0	0	0	928
	918-San Juan AR-Labor	-26,160	0	0	0	0	0	0	0	0	0	0	0	0	-26,160
	921-Stores / Purchasing Load	12,880	0	0	0	0	0	0	0	0	0	0	0	0	12,880
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	6,588	0	0	0	0	0	0	0	0	0	0	0	0	6,588
	926-A and G Loads	46,381	0	0	0	0	0	0	0	0	0	0	0	0	46,381
	928-AFUDC Debt Reg	76,027	0	0	0	0	0	0	0	0	0	0	0	0	76,027
	929-AFUDC - Equity Regular	101,602	0	0	0	0	0	0	0	0	0	0	0	0	101,602
	937-San Juan AR - Other	-1,063,228	0	0	0	0	0	0	0	0	0	0	0	0	-1,063,228
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,110,561	0	0	0	0	0	0	0	0	0	0	0	0	1,110,561
	825-Clearings	-1,114,987	0	0	0	0	0	0	0	0	0	0	0	0	-1,114,987
	Clr Sum	-1,114,987	0	0	0	0	0	0	0	0	0	0	0	0	-1,114,987
	Proj Net	-4,426	0	0	0	0	0	0	0	0	0	0	0	0	-4,426

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617109	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	28,986	0	0	0	0	0	0	0	0	0	0	0	0	28,986	
120-Overtime-General	1,181	0	0	0	0	0	0	0	0	0	0	0	0	1,181	
350-Material Issues-Major	1,247,455	0	0	0	0	0	0	0	0	0	0	0	0	1,247,455	
370-Outside Services	666,762	0	0	0	0	0	0	0	0	0	0	0	0	666,762	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	3,141	0	0	0	0	0	0	0	0	0	0	0	0	3,141	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	-5,177	0	0	0	0	0	0	0	0	0	0	0	0	-5,177	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	2,359	0	0	0	0	0	0	0	0	0	0	0	0	2,359	
914-Pension and Benefits Load	10,835	0	0	0	0	0	0	0	0	0	0	0	0	10,835	
915-Injuries and Damages Load	928	0	0	0	0	0	0	0	0	0	0	0	0	928	
918-San Juan AR-Labor	-26,160	0	0	0	0	0	0	0	0	0	0	0	0	-26,160	
921-Stores / Purchasing Load	12,880	0	0	0	0	0	0	0	0	0	0	0	0	12,880	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	6,588	0	0	0	0	0	0	0	0	0	0	0	0	6,588	
926-A and G Loads	46,381	0	0	0	0	0	0	0	0	0	0	0	0	46,381	
928-AFUDC Debt Reg	76,027	0	0	0	0	0	0	0	0	0	0	0	0	76,027	
929-AFUDC - Equity Regular	101,602	0	0	0	0	0	0	0	0	0	0	0	0	101,602	
937-San Juan AR - Other	-1,063,228	0	0	0	0	0	0	0	0	0	0	0	0	-1,063,228	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	1,110,561	0	0	0	0	0	0	0	0	0	0	0	0	1,110,561	
825-Clearings	-1,114,987	0	0	0	0	0	0	0	0	0	0	0	0	-1,114,987	
Clr Sum	-1,114,987	0	0	0	0	0	0	0	0	0	0	0	0	-1,114,987	
Proj Net	-4,426	0	0	0	0	0	0	0	0	0	0	0	0	-4,426	

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Project No: 76617317 Common C&D Coal Reclaim System - 2018

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 1/15/2017 Estimated Completion Date 11/30/2017

List Interim In-Service Dates

N/A

Project Need Justification

The coal reclaim system is a series of equipment used to move coal from the coal yard to the main plant coal conveyor. This system is made up of underground tunnels equipped with conveyors and transfer chutes that move the coal under the coal pile and feed it onto the main plant conveyor system where other processing of the coal takes place. Should there be a failure of the complete system the units would only be able to run for a few hours with coal stored in the bunkers. Otherwise, the units would have to be derated for a longer run time. This reclaim system has deteriorated to the point where holes in transfer chutes and around feeders create combustible dust and unsafe conditions. Plant cleaning has increased significantly to address poor equipment condition. Varying options from full chute redesign and posimetric feeders, to doing nothing have been discussed--all with significant capital investments required. An engineering study has been completed and a review is currently in process. However, current evaluations have identified and the plant operations department agrees that transfer chutes and support equipment are in need of replacement in addition to the enhanced maintenance recommended for the coal feeder system.

Project Alternatives

Several project alternatives exist and are based on scalability and cost as provided. From full replacement of transfer chutes and feeder modification, to remaining at the current state. Reducing safety risk and improving employee accessibility is the primary focus.

Technical Aspects

The coal reclaims move the coal from the coal yard to the power plant. If the coal reclaim does not work, there is no way to move coal into the coal storage bunkers. If a failure of the system were to occur, the power plant would only be able to run for the amount of time equivalent to the supply of coal left in the storage bunkers unit outage would occur until repairs are completed.

Project Estimate Approach

Project estimate is based on an Engineering study that was performed to provide cost estimates for upgrade and repair various options of work and years of service for the coal system. These quotes/estimates were reviewed by PNM subject matter experts and compared to quotes for similar work that has been done or is currently ongoing at PNM.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617317	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617317	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	421,892	0	625,275	0	0	1,028,555	308,567	719,989	308,567	105,606	0	3,518,450
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	4,514	0	6,690	0	0	11,006	3,302	7,704	3,302	1,130	0	37,647
	926-A and G Loads	0	0	9,999	0	14,819	0	0	24,377	7,313	17,064	7,313	2,503	0	83,387
	928-AFUDC Debt Reg	0	0	334	669	1,168	1,670	1,680	2,503	3,576	4,411	5,251	5,611	0	26,873
	929-AFUDC - Equity Regular	0	0	438	878	1,532	2,190	2,203	3,284	4,691	5,786	6,888	7,359	0	35,249
	937-San Juan AR - Other	0	0	-180,362	0	-267,309	0	0	-439,715	-131,914	-307,800	-131,914	-45,147	0	-1,504,163
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	256,815	1,547	382,175	3,860	3,883	630,010	195,534	447,153	199,406	77,061	0	2,197,444
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	-2,197,444	0	-2,197,444
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	-2,197,444	0	-2,197,444
	Proj Net	0	0	256,815	1,547	382,175	3,860	3,883	630,010	195,534	447,153	199,406	-2,120,383	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617317	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	3,518,450	0	0	0	0	0	0	0	0	0	0	0	0	3,518,450
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non	Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	37,647	0	0	0	0	0	0	0	0	0	0	0	0	37,647
	926-A and G Loads	83,387	0	0	0	0	0	0	0	0	0	0	0	0	83,387
	928-AFUDC Debt Reg	26,873	0	0	0	0	0	0	0	0	0	0	0	0	26,873
	929-AFUDC - Equity Regular	35,249	0	0	0	0	0	0	0	0	0	0	0	0	35,249
	937-San Juan AR - Other	-1,504,163	0	0	0	0	0	0	0	0	0	0	0	0	-1,504,163
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	2,197,444	0	0	0	0	0	0	0	0	0	0	0	0	2,197,444
	825-Clearings	-2,197,444	0	0	0	0	0	0	0	0	0	0	0	0	-2,197,444
	Clr Sum	-2,197,444	0	0	0	0	0	0	0	0	0	0	0	0	-2,197,444
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project No: 76617332 Shumway Arroyo Slurry Wall and Water Containment - Carryover - 2017

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 2/1/2016 Estimated Completion Date 4/30/2017

List Interim In-Service Dates

0

Project Need Justification

A Consent Decree has been approved and entered by the U.S. District Court for the District of New Mexico which settles a lawsuit between PNM and the Sierra Club. Under the terms of the Consent Decree, PNM is required to implement improvements to recover ground water that flows under the San Juan Generating Station property.

Project Alternatives

There are no alternatives. All aspects of the project are subject to the terms of the Consent Decree approved and mandated by the Court. The Consent Decree requires site-specific design criteria and construction standards which were developed in conjunction with PNM technical experts and PNM's contracted geotechnical and civil engineering firms.

Technical Aspects

Per the requirements of the Consent Decree, the Shumway Arroyo Slurry Wall project will generally consist of a subsurface barrier wall, groundwater recovery trench, pump back system and a storm water bypass facility. Water impounded behind the wall is pumped to the plant's evaporation ponds. The conceptual design for the barrier wall is a soil-bentonite wall approximately 800 feet long and will extend up to 43 feet below the ground surface. The groundwater recovery trench will be of similar size and will be located 30 feet upstream of the barrier wall. The final route for the pump back system pipeline has not yet been determined but the conceptual design includes an 8 inch pipe extending between 7,300 feet and 8,800 feet in length. A booster station will also be required along with electric service. The conceptual design for the storm water bypass facility includes box culverts, riprap aprons, concrete aprons and a concrete-lined spillway.

Project Estimate Approach

The cost estimate was prepared by a geotechnical and civil engineering firm whose experts have been involved in numerous projects of similar scope worldwide. The geotechnical investigation, design and construction estimates comprise approximately \$4,500,000. The remaining costs contributing to the total project cost includes land acquisition, outside legal fees, permitting, surveying, road construction and PNM labor.

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617332	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	192,554			0	0	0	0	0	0	192,554		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	651,280			0	0	0	0	0	0	651,280		
370-Outside Services	129,955			25,000	54,000	54,000	237,000	236,250	959,500	1,695,705		
374-Outside Svcs Legal	74,976			0	0	0	0	0	0	74,976		
377-Outside Services-Temp Labor	57,627			0	0	0	0	0	0	57,627		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	1,457			0	0	0	0	0	0	1,457		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	90,283			0	0	0	0	0	0	90,283		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	15,081			0	0	0	0	0	0	15,081		
914-Pension and Benefits Load	68,355			0	0	0	0	0	0	68,355		
915-Injuries and Damages Load	7,026			0	0	0	0	0	0	7,026		
918-San Juan AR-Labor	-162,273			0	0	0	0	0	0	-162,273		
921-Stores / Purchasing Load	5,594			0	0	0	0	0	0	5,594		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	15,325			268	578	578	2,536	2,528	10,267	32,079		
926-A and G Loads	29,211			593	1,280	1,280	5,617	5,599	22,740	66,320		
928-AFUDC Debt Reg	43,793			1,764	1,826	1,909	2,117	2,450	3,280	57,140		
929-AFUDC - Equity Regular	49,969			1,910	1,978	2,067	2,292	2,654	3,552	64,423		
937-San Juan AR - Other	-525,328			-10,688	-23,085	-23,085	-101,319	-100,999	-410,193	-1,194,698		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	744,885			18,847	36,577	36,748	148,243	148,483	589,145	1,722,928		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	744,885			18,847	36,577	36,748	148,243	148,483	589,145	1,722,928		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617332	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	192,554	0	0	0	0	0	0	0	0	0	0	0	0	192,554	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	651,280	0	0	0	0	0	0	0	0	0	0	0	0	651,280	
370-Outside Services	1,695,705	950,000	992,000	996,000	950,000	0	0	0	0	0	0	0	0	5,583,705	
374-Outside Svcs Legal	74,976	0	0	0	0	0	0	0	0	0	0	0	0	74,976	
377-Outside Services-Temp Labor	57,627	0	0	0	0	0	0	0	0	0	0	0	0	57,627	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	1,457	0	0	0	0	0	0	0	0	0	0	0	0	1,457	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	90,283	0	0	0	0	0	0	0	0	0	0	0	0	90,283	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	15,081	0	0	0	0	0	0	0	0	0	0	0	0	15,081	
914-Pension and Benefits Load	68,355	0	0	0	0	0	0	0	0	0	0	0	0	68,355	
915-Injuries and Damages Load	7,026	0	0	0	0	0	0	0	0	0	0	0	0	7,026	
918-San Juan AR-Labor	-162,273	0	0	0	0	0	0	0	0	0	0	0	0	-162,273	
921-Stores / Purchasing Load	5,594	0	0	0	0	0	0	0	0	0	0	0	0	5,594	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	32,079	10,165	10,614	10,657	10,165	0	0	0	0	0	0	0	0	73,680	
926-A and G Loads	66,320	22,515	23,510	23,605	22,515	0	0	0	0	0	0	0	0	158,465	
928-AFUDC Debt Reg	57,140	5,321	6,889	8,503	10,094	0	0	0	0	0	0	0	0	87,947	
929-AFUDC - Equity Regular	64,423	6,980	9,037	11,154	13,240	0	0	0	0	0	0	0	0	104,832	
937-San Juan AR - Other	-1,194,698	-406,132	-424,087	-425,797	-406,132	0	0	0	0	0	0	0	0	-2,856,845	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	1,722,928	588,849	617,964	624,122	599,882	0	0	0	0	0	0	0	0	4,153,744	
825-Clearings	0	0	0	0	-4,183,932	0	0	0	0	0	0	0	0	-4,183,932	
Clr Sum	0	0	0	0	-4,183,932	0	0	0	0	0	0	0	0	-4,183,932	
Proj Net	1,722,928	588,849	617,964	624,122	-3,584,050	0	0	0	0	0	0	0	0	-30,188	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617332	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	192,554	0	0	0	0	0	0	0	0	0	0	0	0	192,554
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	651,280	0	0	0	0	0	0	0	0	0	0	0	0	651,280
	370-Outside Services	5,583,705	0	0	0	0	0	0	0	0	0	0	0	0	5,583,705
	374-Outside Svcs Legal	74,976	0	0	0	0	0	0	0	0	0	0	0	0	74,976
	377-Outside Services-Temp Labor	57,627	0	0	0	0	0	0	0	0	0	0	0	0	57,627
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	1,457	0	0	0	0	0	0	0	0	0	0	0	0	1,457
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	90,283	0	0	0	0	0	0	0	0	0	0	0	0	90,283
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	15,081	0	0	0	0	0	0	0	0	0	0	0	0	15,081
	914-Pension and Benefits Load	68,355	0	0	0	0	0	0	0	0	0	0	0	0	68,355
	915-Injuries and Damages Load	7,026	0	0	0	0	0	0	0	0	0	0	0	0	7,026
	918-San Juan AR-Labor	-162,273	0	0	0	0	0	0	0	0	0	0	0	0	-162,273
	921-Stores / Purchasing Load	5,594	0	0	0	0	0	0	0	0	0	0	0	0	5,594
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	73,680	0	0	0	0	0	0	0	0	0	0	0	0	73,680
	926-A and G Loads	158,465	0	0	0	0	0	0	0	0	0	0	0	0	158,465
	928-AFUDC Debt Reg	87,947	0	0	0	0	0	0	0	0	0	0	0	0	87,947
	929-AFUDC - Equity Regular	104,832	0	0	0	0	0	0	0	0	0	0	0	0	104,832
	937-San Juan AR - Other	-2,856,845	0	0	0	0	0	0	0	0	0	0	0	0	-2,856,845
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	4,153,744	0	0	0	0	0	0	0	0	0	0	0	0	4,153,744
	825-Clearings	-4,183,932	0	0	0	0	0	0	0	0	0	0	0	0	-4,183,932
	Clr Sum	-4,183,932	0	0	0	0	0	0	0	0	0	0	0	0	-4,183,932
	Proj Net	-30,188	0	0	0	0	0	0	0	0	0	0	0	0	-30,188

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Specifics

Project No: 70016108 San Juan Emergent Capitalization Projects

Company: 003-Bulk Power

Location: 700 Generation

Project Information

<u>Construction Start Date</u>	1/1/2015	<u>Estimated Completion Date</u>	12/31/2019
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List Interim In-Service Dates

0

Project Need Justification

This capitalization wedge was developed to cover the replacement of unforeseen equipment failures during the year that meet capitalization criteria. Examples of unforeseen capital expenditures include failure of small to medium size pumps that require complete rebuilds or replacement and failure of underground large diameter piping systems requiring replacement or repairs. Typical cost of these items are less than \$100,000 per event, but combine to annual costs exceeding \$1 million.

Project Alternatives

There are no alternatives to completing the repair or replacement work. Not completing required replacements would reduce unit availability and is not considered an option. These items are necessary for the machinery to function. Optionality does exist in evaluating between repair options against replacement options to determine best value.

Technical Aspects

Depending on analysis of each individual failure repair/replace decision, parts will be ordered according to necessary specifications and design standards. Individual decisions must meet specification when considering repair and replacement options.

Project Estimate Approach

As a result of previous work, actual costs are recorded in the plant maintenance management system to develop capital cost in the future. Project cost estimates utilized this system to obtain a cost-per-event estimate. Repair and replacement alternatives are economically evaluated for best value and lowest evaluated cost based on bid price, delivery time, and age relate system requirements.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	70016108	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			35,500	35,500	58,500	35,500	35,500	59,500	260,000		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-90	-90	-90	-270		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			2,954	2,954	4,867	2,954	2,954	4,950	21,632		
928-AFUDC Debt Reg	0			43	43	71	43	43	73	317		
929-AFUDC - Equity Regular	0			47	47	77	47	47	79	343		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			38,544	38,544	63,516	38,454	38,454	64,511	282,022		
825-Clearings	0			-38,544	-38,544	-63,516	-38,454	-38,454	-64,511	-282,022		
Clr Sum	0			-38,544	-38,544	-63,516	-38,454	-38,454	-64,511	-282,022		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	70016108	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	260,000	52,763	52,763	52,763	52,763	52,763	52,763	52,763	52,763	52,763	52,763	52,763	52,763	893,150	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	-270	-116	-116	0	0	0	0	0	0	0	0	0	0	-501	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	21,632	3,546	3,546	3,546	3,546	3,546	3,546	3,546	3,546	3,546	3,546	3,546	3,546	64,180	
928-AFUDC Debt Reg	317	73	220	368	73	221	369	73	221	369	73	221	369	2,967	
929-AFUDC - Equity Regular	343	96	289	483	96	289	484	96	289	484	96	289	484	3,819	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	282,022	56,362	56,702	57,159	56,478	56,818	57,160	56,478	56,818	57,160	56,478	56,818	57,160	963,614	
825-Clearings	-282,022	0	0	-170,223	0	0	-170,456	0	0	-170,456	0	0	-170,456	-963,614	
Clr Sum	-282,022	0	0	-170,223	0	0	-170,456	0	0	-170,456	0	0	-170,456	-963,614	
Proj Net	0	56,362	56,702	-113,064	56,478	56,818	-113,296	56,478	56,818	-113,296	56,478	56,818	-113,296	0	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	70016108	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	893,150	52,500	52,500	152,500	52,500	182,500	52,500	52,500	52,500	52,500	52,500	52,500	52,500	1,753,150
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-501	0	0	0	0	0	0	0	0	0	0	0	0	-501
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	64,180	3,528	3,528	10,248	3,528	12,264	3,528	3,528	3,528	3,528	3,528	3,528	3,528	121,972
	928-AFUDC Debt Reg	2,967	73	220	507	73	401	730	73	220	367	73	220	367	6,291
	929-AFUDC - Equity Regular	3,819	66	198	457	66	361	658	66	198	331	66	198	331	6,816
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	963,614	56,167	56,446	163,711	56,167	195,526	57,417	56,167	56,446	56,726	56,167	56,446	56,726	1,887,728
	825-Clearings	-963,614	0	0	-276,324	0	0	-309,110	0	0	-169,339	0	0	-169,339	-1,887,728
	Clr Sum	-963,614	0	0	-276,324	0	0	-309,110	0	0	-169,339	0	0	-169,339	-1,887,728
	Proj Net	0	56,167	56,446	-112,613	56,167	195,526	-251,694	56,167	56,446	-112,613	56,167	56,446	-112,613	0

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Generation Tier 2 Capital Projects

PNM Exhibit CM0-3

Is contained in the following 331 pages

Electronic Instructions:

To view detailed costs for each project, click project to highlight then Press "CTRL" and left click on mouse.

To return back to index from detailed costs, click "CTRL" and "Home"

Wednesday, November 16, 2016

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PNM EXHIBIT CMO-3-Generation Tier 2 Capital Projects

Link/Test

CWIP

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Bulk Power Building Alloc.....	\$709,383	\$0	\$709,383.....	15
Project No:35728016 WISKE Software	\$333,732	\$0	\$333,732.....	16
Project No:35730515 Aztec Security Equipment Upgrades	\$375,651	\$0	\$375,651.....	20
Four Corners	\$577,609 (.....	\$299,669)	\$577,609.....	24
Project No:71519117 Four Corners Facility Improvements - Switchyard	\$577,609 (.....	\$299,669)	\$577,609.....	25
Lordsburg.....	\$613,011	\$20,337	\$613,011.....	29
Project No:70316115 Lordsburg Capital Improvements 2016	\$354,802	\$20,337	\$354,802.....	30
Project No:70316215 Lordsburg Capital Improvements 2017	\$107,687	\$0	\$107,687.....	34
Project No:70316315 Lordsburg Capital Improvements 2018	\$150,523	\$0	\$150,523.....	38
Luna	\$434,570	\$0	\$434,570.....	42

Project No:74416315 Luna Capital Improvements 2018	\$434,570	\$0	\$434,570.....	43
Reeves.....	\$626,440	\$0	\$626,440.....	47
Project No:71316017 Reeves U2 Boiler Optimizer	\$186,842	\$0	\$186,842.....	48
Project No:71316117 Reeves U1 Attemperator Block Valves	\$164,489	\$0	\$164,489.....	52
Project No:71316217 Reeves U2 Attemperator Block Valves	\$155,089	\$0	\$155,089.....	56
Project No:71316416 Reeves CT Chemical Feed Upgrade	\$120,020	\$0	\$120,020.....	60
San Juan	\$15,379,329	\$520,627 ...	\$15,379,329.....	64
Project No:76016223 Unit 3 Capitalization Wedge	\$194,297	\$1,343	\$194,297.....	65
Project No:76016224 Unit 4 Capitalization Wedge	\$116,696	\$1,774	\$116,696.....	69
Project No:76116017 Unit 1 Hydrogen Gas and Cooling Water Regulators	\$132,232	\$0	\$132,232.....	73
Project No:76116067 Unit 1 SO2 Auxiliary Transformer and Cable Diff Relay	\$130,114	\$0	\$130,114.....	77
Project No:76116116 Unit 1 Baghouse Bags - 2018	\$306,888	\$0	\$306,888.....	81
Project No:76116118 Unit 1 Demister Pads - 2018	\$187,355	\$0	\$187,355.....	85
Project No:76116217 Unit 1 Absorber Vessel Coating - 2018	\$251,083	\$0	\$251,083.....	89
Project No:76116230 Unit 1 Emergency Diesel Generator - 2018	\$240,690	\$0	\$240,690.....	93
Project No:76116417 Unit 1 Hydroclone Underflow Piping - 2018	\$135,619	\$0	\$135,619.....	97
Project No:76116518 Unit 1 Absorber Recirculation Pump Discharge Piping	\$131,520	\$0	\$131,520....	101
Project No:76116817 Unit 1 Boiler Acoustic Leak Detection System - 2018	\$125,084	\$0	\$125,084....	105
Project No:76116819 Unit 1 Pulverizer Mill Primary Air Shutoff Valve Damper Drives -2018	\$191,309	\$0	\$191,309....	109
Project No:76117017 Unit 1 Absorber Area Sump Replacement - 2018	\$112,080	\$0	\$112,080....	113

Project No:76117117 Unit 1 Boiler O2 Grid - 2018	\$526,367	\$0	\$526,367....	117
Project No:76117530 Unit 1 Emergency Diesel Generator - 2019	\$115,557	\$0	\$115,557....	121
Project No:76121912 SJ U1 SNCR	\$295,483	\$0	\$295,483....	125
Project No:76416068 Unit 4 Mercury Sorbent Traps	\$100,444	\$0	\$100,444....	130
Project No:76416115 Unit 4 Flyash System Upgrade	\$600,583	\$0	\$600,583....	134
Project No:76416318 Unit 4 Absorber Demister Pads - 2018	\$340,864	\$0	\$340,864....	139
Project No:76416415 Unit 4 Hydrogen Dryer - 2018	\$212,913	\$0	\$212,913....	143
Project No:76416416 Unit 4 Raw Water Line - 2016	\$238,809	\$0	\$238,809....	147
Project No:76416517 Unit 4 Flyash Bin Vent Filter Replacement - 2018	\$525,833	\$0	\$525,833....	151
Project No:76416518 Unit 4 Multiplexer I-O Chemical Feed Controls - 2021	\$206,499	\$0	\$206,499....	155
Project No:76416618 Unit 4 Cooling Tower Raw Water Line Replacement - 2018	\$497,960	\$0	\$497,960....	159
Project No:76416630 Unit 4 Feedwater Heater Shell - 2018	\$568,251	\$0	\$568,251....	163
Project No:76416730 Unit 4 Obsolete PLC Replacement - 2021	\$125,424	\$0	\$125,424....	167
Project No:76417115 Unit 4 Economizer Ash Removal System	\$119,623	\$0	\$119,623....	171
Project No:76417117 Unit 4 Acoustic Leak Detection - 2018	\$338,466	\$0	\$338,466....	176
Project No:76417417 Unit 4 Hydrogen Gas and Cooling Water Regulators - 2018	\$181,120	\$0	\$181,120....	180
Project No:76421912 SJ U4 SNCR	\$493,389	\$498,259	\$493,389....	184
Project No:76616316 Common Brine Concentrator Tube Shell Reclad - 2016	\$126,823	\$9,383	\$126,823....	189
Project No:76616517 Common Mezzanine Level HVAC Replacement - 2017	\$299,395	\$0	\$299,395....	193
Project No:76616518 Common System Support - Decommissioning (42.697% PNM) - 2018	\$631,444	\$0	\$631,444....	197

Project No:76616616 Common Oxidation Blower Separate PLC Control - 2016	\$119,309	\$0	\$119,309....	201
Project No:76616716 Common Communication Network - 2018	\$437,402	\$4,637	\$437,402....	205
Project No:76616817 Common Cathodic Protection System - 2017	\$315,894	\$0	\$315,894....	209
Project No:76617117 Common North Side N1 Pond Remediation - 2018	\$311,134	\$0	\$311,134....	213
Project No:76617217 Common North Side Wastewater MCC-2 Cubicle Buckets -2017	\$172,178	\$0	\$172,178....	217
Project No:76617232 Common PLC and Instrumentation Upgrade - Lake Station	\$153,894	\$0	\$153,894....	221
Project No:76617432 Common Raw Water Reservoir Slurry Wall	\$225,870	\$0	\$225,870....	225
Project No:76617517 Common Joint Control Room - 2018	\$432,853	\$0	\$432,853....	229
Project No:76617617 Common Pond 3 Transfer Line - 2017	\$545,507	\$0	\$545,507....	233
Project No:76617717 Common Coal System PLC Conversion - 2017	\$177,144	\$0	\$177,144....	237
Project No:76617817 Common North Side Wastewater Switchgear Automatic Transfer -2017	\$132,848	\$0	\$132,848....	241
Project No:76617917 Common Filtrate Transfer Line Replacement - 2017	\$163,484	\$0	\$163,484....	245
Project No:76628016 Common Warehouse Material Control System - Carryover -2017	\$517,576	\$590	\$517,576....	249
Project No:76628047 Common Foxboro I-A Version 8.8 Limestone-Coal NERC	\$203,839	\$0	\$203,839....	253
Project No:76641016 Common C&D Coal Reclaim Feeders Study	\$222,271	\$0	\$222,271....	258
Project No:77021913 SJGS SNCR costs PNM Share	\$596,134	\$0	\$596,134....	262
Project No:77916016 Switchyard Breaker - 17482 - 2016	\$319,576	\$0	\$319,576....	267
Project No:77916018 Switchyard Relays and Meters - 2018	\$101,382	\$0	\$101,382....	271
Project No:77916116 Switchyard Relays and Breakers - Switch 16383 - 2016	\$205,942	\$0	\$205,942....	275
Project No:77916117 Switchyard U1 GSU Transformer Bushings - 2018	\$101,376	\$0	\$101,376....	279

Project No:77916216 Transformer T1 Bushings - Carryover - 2017	\$280,902	\$4,641	\$280,902....	283
Project No:77916217 Switchyard Unit 4 B Auxiliary Transformer Bushings - 2018	\$101,658	\$0	\$101,658....	287
Project No:77916316 Four Corners Line Relaying SCADA - Carryover - 2017	\$197,619	\$0	\$197,619....	291
Project No:77917223 Switchyard Breakers	\$543,322	\$0	\$543,322....	295
Rio Bravo/La Luz/Production.....	\$2,387,036	\$0	\$2,387,036....	299
Project No:04616116 Rio Bravo LCI Upgrade	\$401,196	\$0	\$401,196....	300
Project No:04616117 Rio Bravo Back-up Generator	\$295,158	\$0	\$295,158....	304
Project No:04616316 Rio Bravo AVR Upgrade	\$427,849	\$0	\$427,849....	308
Project No:04616317 Rio Bravo Exhaust Duct Upgrade	\$245,980	\$0	\$245,980....	312
Project No:04616416 Rio Bravo Relay Upgrade	\$160,542	\$0	\$160,542....	316
Project No:75216017 La Luz Paving	\$541,426	\$0	\$541,426....	320
Project No:75216117 La Luz Warehouse	\$196,878	\$0	\$196,878....	324
Project No:75216316 La Luz Oil Metal Detector	\$118,007	\$0	\$118,007....	328
Totals for Report.....	\$21,843,658	\$241,296	\$21,843,658....	331

Afton

Project No: 70716215 Afton Capital Improvements 2017

Company: 003-Bulk Power
Location: 707 Afton

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date 12/31/2017

List Interim In-Service Dates

Individual projects will be placed in service as appropriate. All projects funded will be completed and In Service prior to December 31, 2017.

Project Need Justification

This project will fund various minor emergent capital improvement projects at Afton in 2017. Such capital improvement projects will address emergent safety, regulatory and performance issues to assure ongoing compliant, efficient and reliable operation of the plant. Projects under this fund in 2017 will include improvements/additions to structures to improve access to equipment and personnel safety, addition of a cooling system to the air compressor building, upgrades to the gas turbine control system for primary frequency response, and replacement of various obsolete programmable logic controllers.

Project Alternatives

For each identified project, alternatives will be evaluated on a cost basis and further on each alternative's expected effectiveness at addressing the emergent need.

Technical Aspects

Each individual project funded will be properly evaluated and engineered to effectively address an emergent need in a cost effective manner. Specific projects cannot be known at this time.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	70716215	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	70716215	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	80,000	0	0	80,000	0	0	80,000	0	0	240,000
	370-Outside Services	0	0	300,000	0	40,000	0	0	40,000	0	0	40,000	0	0	420,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	5,960	0	0	5,960	0	0	5,960	0	0	17,880
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	20,160	0	8,064	0	0	8,064	0	0	8,064	0	0	44,352
	928-AFUDC Debt Reg	0	0	417	0	175	350	0	175	350	0	175	350	0	1,993
	929-AFUDC - Equity Regular	0	0	547	0	229	460	0	229	460	0	229	460	0	2,614
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	321,125	0	134,428	810	0	134,428	810	0	134,428	810	0	726,838
	825-Clearings	0	0	-321,125	0	0	-135,238	0	0	-135,238	0	0	-135,238	0	-726,838
	Clr Sum	0	0	-321,125	0	0	-135,238	0	0	-135,238	0	0	-135,238	0	-726,838
	Proj Net	0	0	0	0	134,428	-134,428	0	134,428	-134,428	0	134,428	-134,428	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	70716215	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	240,000	0	0	0	0	0	0	0	0	0	0	0	0	240,000	
370-Outside Services	420,000	0	0	0	0	0	0	0	0	0	0	0	0	420,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	17,880	0	0	0	0	0	0	0	0	0	0	0	0	17,880	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	44,352	0	0	0	0	0	0	0	0	0	0	0	0	44,352	
928-AFUDC Debt Reg	1,993	0	0	0	0	0	0	0	0	0	0	0	0	1,993	
929-AFUDC - Equity Regular	2,614	0	0	0	0	0	0	0	0	0	0	0	0	2,614	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	726,838	0	0	0	0	0	0	0	0	0	0	0	0	726,838	
825-Clearings	-726,838	0	0	0	0	0	0	0	0	0	0	0	0	-726,838	
Clr Sum	-726,838	0	0	0	0	0	0	0	0	0	0	0	0	-726,838	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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Project No: 70716315 Afton Capital Improvements 2018

Company: 003-Bulk Power
Location: 707 Afton

Project Information

Construction Start Date 1/1/2018 Estimated Completion Date 12/31/2018

List Interim In-Service Dates

Individual projects will be placed in service as appropriate. All projects funded will be completed and in service prior to December 31, 2017.

Project Need Justification

This project will fund various minor emergent capital improvement projects at Afton in 2017. Such capital improvement projects will address emergent safety, regulatory and performance issues to assure ongoing compliant, efficient and reliable operation of the plant. The typical type of capital improvements that would be funded under this project fund include retirement & replacement of existing smaller capitalized equipment assets such as control system components and small pumps and structural improvements to the plant that enhance safety or compliance such as new work platforms and spill containment structures.

Project Alternatives

For each identified project, alternatives will be evaluated on a cost basis and further on each alternative's expected effectiveness at addressing the emergent need.

Technical Aspects

Each individual project funded will be properly evaluated and engineered to effectively address an emergent need in a cost effective manner. Specific projects cannot be known at this time.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	70716315	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	70716315	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	70716315	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	50,000	0	0	75,000	0	0	50,000	0	0	175,000	
370-Outside Services	0	0	0	0	50,000	0	0	75,000	0	0	50,000	0	0	175,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	3,725	0	0	5,588	0	0	3,725	0	0	13,038	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	0	0	0	6,720	0	0	10,080	0	0	6,720	0	0	23,520	
928-AFUDC Debt Reg	0	0	0	0	144	289	0	216	434	0	144	289	0	1,517	
929-AFUDC - Equity Regular	0	0	0	0	130	261	0	195	391	0	130	261	0	1,367	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	110,719	550	0	166,079	825	0	110,719	550	0	389,442	
825-Clearings	0	0	0	0	0	-111,269	0	0	-166,904	0	0	-111,269	0	-389,442	
Clr Sum	0	0	0	0	0	-111,269	0	0	-166,904	0	0	-111,269	0	-389,442	
Proj Net	0	0	0	0	110,719	-110,719	0	166,079	-166,079	0	110,719	-110,719	0	0	

Bulk Power Building Alloc

Project No: 35728016 WISKE Software

Company: 003-Bulk Power
Location: 357 Bulk Power Building Allocation

Project Information

Construction Start Date 9/1/2016 Estimated Completion Date 11/30/2017

List Interim In-Service Dates

0

Project Need Justification

PNM does not currently have a central repository to store water related data. The information is maintained by multiple individuals in multiple manners and formats and is therefore not accessible across the fleet. This fragmentation of data makes it nearly impossible to query, making the report preparation process very time consuming. Given these current conditions and the importance of water in the generation process, this project involves developing software to store PNM's water related data.

Project Alternatives

As previously described, the do nothing solution will not resolve any of the issues PNM is currently experiencing. Though a solution has not yet been identified, the solution ultimately selected will comply with all design criteria and identified system needs.

Technical Aspects

PNM will either purchase or develop software to store its water related data.

Project Estimate Approach

Project estimate was provided by BTS business analysts and is applicable for either the development or purchase solution and any associated labor costs to implement.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	35728016	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	25,000	25,000	25,000	25,000	100,000		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	56	171	277	401	905		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	2,080	2,080	2,080	2,080	8,320		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	27,136	27,251	27,357	27,481	109,225		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	27,136	27,251	27,357	27,481	109,225		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	35728016	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	100,000	22,000	22,000	22,000	23,000	22,000	22,000	23,000	22,000	22,000	0	0	0	300,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	905	515	558	722	804	939	1,003	1,141	1,254	1,321	1,423	1,387	0	11,972
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	8,320	1,478	1,478	1,478	1,546	1,478	1,478	1,546	1,478	1,478	0	0	0	21,760
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	109,225	23,993	24,037	24,201	25,350	24,417	24,482	25,687	24,732	24,799	1,423	1,387	0	333,732
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	-333,732	0	-333,732
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	-333,732	0	-333,732
Proj Net		109,225	23,993	24,037	24,201	25,350	24,417	24,482	25,687	24,732	24,799	1,423	-332,345	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	35728016	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	300,000	0	0	0	0	0	0	0	0	0	0	0	0	300,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	11,972	0	0	0	0	0	0	0	0	0	0	0	0	11,972
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	21,760	0	0	0	0	0	0	0	0	0	0	0	0	21,760
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	333,732	0	0	0	0	0	0	0	0	0	0	0	0	333,732
	825-Clearings	-333,732	0	0	0	0	0	0	0	0	0	0	0	0	-333,732
	Clr Sum	-333,732	0	0	0	0	0	0	0	0	0	0	0	0	-333,732
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 35730515 Aztec Security Equipment Upgrades

Company: 003-Bulk Power
Location: 357 Bulk Power Building Allocation

Project Information

<u>Construction Start Date</u>	3/1/2017	<u>Estimated Completion Date</u>	7/31/2019
<u>List Interim In-Service Dates</u>	0		

Project Need Justification
This project is a wedge/placeholder in the budget for facility security system improvements. The scope of the project may include, but is not limited to adding additional and/or replacing cameras, upgrading access control upgrades, upgrading or replacing the video management system, building improvements/renovations for additional security, perimeter detection systems, building renovation to redefine the physical security perimeter (PSP) of our critical infrastructure protection (CIP) area, installing yard improvements and security alarm systems to deter theft. The improvements and scope will be determined by the Corporate Security Supervisor, Corporate Security Team, General Services Manager, and qualified and experienced external vendors.

Project Alternatives
Due to the need for upgrades to security, there are no alternatives identified at this time. Once the scope has been identified for a particular year, specific alternatives will be considered on the project level.

Technical Aspects
The technical aspects of the work will be identified when the scope of work has been determined. Some examples of the work that will be performed includes adding additional and/or replacing cameras, upgrading access control upgrades, upgrading or replacing the video management system, building improvements/renovations for additional security, perimeter detection systems, building renovation to redefine the physical security perimeter (PSP) of our critical infrastructure protection (CIP) area, installing yard improvements and security alarm systems to deter theft.

Project Estimate Approach
The estimated costs for the Aztec facility security upgrades is based on four cost categories: design, renovation, materials and services (labor). Based on current contracts with construction companies, access control vendors, and camera vendors, the overall cost of the project was calculated. The design phase provides the estimated costs for the particular project which includes renovation, materials and labor. Based on recent work of similar size and scope performed by our contractors and vendors, estimates were calculated to establish overall costs for particular projects.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	35730515	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	20,000	25,000	0	0	0	45,000		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-229	0	0	-229		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	1,664	2,080	0	0	0	3,744		
928-AFUDC Debt Reg	0			0	24	79	110	0	0	214		
929-AFUDC - Equity Regular	0			0	26	86	119	0	0	232		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	21,715	27,246	0	0	0	48,960		
825-Clearings	0			0	0	0	-48,960	0	0	-48,960		
Clr Sum	0			0	0	0	-48,960	0	0	-48,960		
Proj Net	0			0	21,715	27,246	-48,960	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	35730515	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	45,000	0	0	0	0	0	0	0	25,000	25,000	0	0	0	95,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	-229
	426-Capitalized Interest	-229	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	3,744	0	0	0	0	0	0	0	1,680	1,680	0	0	0	7,104
	928-AFUDC Debt Reg	214	0	0	0	0	0	0	0	35	105	140	0	0	493
929-AFUDC - Equity Regular	937-San Juan AR - Other	232	0	0	0	0	0	0	0	46	137	184	0	0	598
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	48,960	0	0	0	0	0	0	0	26,760	26,922	323	0	0	102,966
	825-Clearings	-48,960	0	0	0	0	0	0	0	0	0	-54,005	0	0	-102,966
	Clr Sum	-48,960	0	0	0	0	0	0	0	0	0	-54,005	0	0	-102,966
Proj Net		0	0	0	0	0	0	0	0	26,760	26,922	-53,682	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	35730515	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	95,000	0	0	0	0	0	0	100,000	100,000	0	25,000	25,000	0	345,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-229	0	0	0	0	0	0	0	0	0	0	0	0	-229
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	7,104	0	0	0	0	0	0	6,720	6,720	0	1,680	1,680	0	23,904
	928-AFUDC Debt Reg	493	0	0	0	0	0	0	139	419	560	598	670	709	3,588
	929-AFUDC - Equity Regular	598	0	0	0	0	0	0	126	377	505	539	604	639	3,388
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	102,966	0	0	0	0	0	0	106,985	107,516	1,065	27,817	27,955	1,347	375,651
	825-Clearings	-102,966	0	0	0	0	0	0	0	0	0	0	0	-272,685	-375,651
	Clr Sum	-102,966	0	0	0	0	0	0	0	0	0	0	0	-272,685	-375,651
Proj Net		0	0	0	0	0	0	0	106,985	107,516	1,065	27,817	27,955	-271,338	0

Four Corners

Project No: 71519117 Four Corners Facility Improvements - Switchyard

Company: 003-Bulk Power
Location: 715 Four Corners

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date

List Interim In-Service Dates

Each in service dates will be related to each individual project's completion.

Project Need Justification

Projects in the switchyard of the Four Corners Generating facility are reviewed and approved for viability based on reduction of safety hazards, maintenance of regulatory compliance, improvement of system reliability, and possible reduction of maintenance costs. The decision to move forward with this project was determined by a majority of the facility owners as a result of various discussions of the project's viability. This project is contractually obligated. Examples of projects to be performed are breaker replacement, switch replacement, battery replacement, and bushing replacements.

Project Alternatives

Each project is evaluated on its own merit for possible alternatives to ensure the recommended project path approved is the most viable option. Funds for this project are contractually obligated.

Technical Aspects

Each project will have differing and specific technical aspects. Some will require specific outages with in the substation to ensure the project can be executed safely and successfully.

Project Estimate Approach

Estimates for each project, depending on type, will use previous similar projects for reference, vendor quotes for equipment, contractor installation budgetary quotes, and engineering and project manager estimates.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	71519117	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	71519117	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	34,594	34,594	34,594	34,594	34,594	34,594	34,594	34,594	34,594	34,594	34,594	34,594	415,125	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	284	284	284	284	284	284	284	284	284	284	284	284	3,404	
928-AFUDC Debt Reg	0	45	137	228	252	344	437	409	503	597	530	624	719	4,826	
929-AFUDC - Equity Regular	0	60	179	300	330	452	574	537	660	783	695	818	943	6,330	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	34,982	35,193	35,405	35,460	35,673	35,888	35,824	36,040	36,257	36,102	36,320	36,539	429,684	
825-Clearings	0	0	0	-26,395	0	0	-46,552	0	0	-61,944	0	0	-73,698	-208,589	
Clr Sum	0	0	0	-26,395	0	0	-46,552	0	0	-61,944	0	0	-73,698	-208,589	
Proj Net	0	34,982	35,193	9,010	35,460	35,673	-10,663	35,824	36,040	-25,687	36,102	36,320	-37,160	221,095	

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	71519117	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	415,125	35,459	35,459	35,459	35,459	35,459	35,459	35,459	35,459	35,459	35,459	35,459	35,459	840,628
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	3,404	291	291	291	291	291	291	291	291	291	291	291	291	6,893
	928-AFUDC Debt Reg	4,826	624	721	817	698	795	892	754	851	949	797	894	992	14,608
	929-AFUDC - Equity Regular	6,330	563	650	737	629	716	804	680	767	855	718	806	894	15,148
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	429,684	36,936	37,119	37,304	37,076	37,260	37,445	37,183	37,368	37,553	37,264	37,449	37,635	877,278
	825-Clearings	-208,589	0	0	-83,113	0	0	-90,281	0	0	-95,736	0	0	-99,890	-577,609
	Clr Sum	-208,589	0	0	-83,113	0	0	-90,281	0	0	-95,736	0	0	-99,890	-577,609
	Proj Net	221,095	36,936	37,119	-45,810	37,076	37,260	-52,835	37,183	37,368	-58,183	37,264	37,449	-62,254	299,669

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Lordsburg

Project No: 70316115 Lordsburg Capital Improvements 2016

Company: 003-Bulk Power
Location: 703 Lordsburg

Project Information

Construction Start Date 1/1/2016 Estimated Completion Date 12/31/2016

List Interim In-Service Dates

Individual Capital Improvement Projects funded under this Project Fund will be placed In Service as appropriate. All Capital Improvement Projects funded under this Project Fund will be completed and In Service prior to December 31, 2016.

Project Need Justification

Funds for this project include materials and external labor to address smaller emergent capital improvement projects anticipated at Lordsburg in 2016. The need for these projects are to perform improvements related to emergent safety, regulatory and/or performance issues. By performing these projects, PNM will ensure the ongoing safe, compliant, efficient, and reliable operation of the plant. At this time, there have been no projects identified for completion under this small project fund. The typical type of capital improvements that would be funded under this project fund include retirement & replacement of existing smaller capitalized equipment assets such as control system components and small pumps and structural improvements to the plant that enhance safety or compliance such as new work platforms and spill containment structures.

Project Alternatives

The capital improvements funded under this project will be completed only after attaining the approval to spend capital to address an emergent need. For each identified project, alternatives will be evaluated on a cost basis and the expected effectiveness of each alternative to resolve the emergent need/issue.

Technical Aspects

Each capital improvement project funded under this project will be properly evaluated and engineered to effectively address the emergent need in a cost effective manner. Though there have been no projects identified for completion under this small project fund at this time, the typical type of capital improvements that would be funded under this project fund include retirement & replacement of existing smaller capitalized equipment assets such as control system components and small pumps and structural improvements to the plant that enhance safety or compliance such as new work platforms and spill containment structures.

Project Estimate Approach

N/A

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	70316115	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	234,045			0	34,000	36,000	0	0	0	304,045		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	19,473			0	2,829	2,995	0	0	0	25,297		
928-AFUDC Debt Reg	1,556			623	667	44	0	0	0	2,889		
929-AFUDC - Equity Regular	789			674	722	48	0	0	0	2,234		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	255,863			1,297	38,218	39,087	0	0	0	334,465		
825-Clearings	0			0	-315,715	-39,087	0	0	0	-354,802		
Clr Sum	0			0	-315,715	-39,087	0	0	0	-354,802		
Proj Net	255,863			1,297	-277,497	0	0	0	0	-20,337		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	70316115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	304,045	0	0	0	0	0	0	0	0	0	0	0	0	304,045
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	25,297	0	0	0	0	0	0	0	0	0	0	0	0	25,297
	928-AFUDC Debt Reg	2,889	0	0	0	0	0	0	0	0	0	0	0	0	2,889
	929-AFUDC - Equity Regular	2,234	0	0	0	0	0	0	0	0	0	0	0	0	2,234
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	334,465	0	0	0	0	0	0	0	0	0	0	0	0	334,465
	825-Clearings	-354,802	0	0	0	0	0	0	0	0	0	0	0	0	-354,802
	Clr Sum	-354,802	0	0	0	0	0	0	0	0	0	0	0	0	-354,802
	Proj Net	-20,337	0	0	0	0	0	0	0	0	0	0	0	0	-20,337

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	70316115	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	304,045	0	0	0	0	0	0	0	0	0	0	0	0	304,045
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	25,297	0	0	0	0	0	0	0	0	0	0	0	0	25,297
	928-AFUDC Debt Reg	2,889	0	0	0	0	0	0	0	0	0	0	0	0	2,889
	929-AFUDC - Equity Regular	2,234	0	0	0	0	0	0	0	0	0	0	0	0	2,234
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	334,465	0	0	0	0	0	0	0	0	0	0	0	0	334,465
	825-Clearings	-354,802	0	0	0	0	0	0	0	0	0	0	0	0	-354,802
	Clr Sum	-354,802	0	0	0	0	0	0	0	0	0	0	0	0	-354,802
	Proj Net	-20,337	0	0	0	0	0	0	0	0	0	0	0	0	-20,337

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Project No: 70316215 Lordsburg Capital Improvements 2017

Company: 003-Bulk Power
Location: 703 Lordsburg

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date 12/31/2017

List Interim In-Service Dates

Individual projects will be placed in service as appropriate. All projects funded will be completed and In Service prior to December 31, 2017.

Project Need Justification

This project will fund various minor emergent capital improvement projects at Lordsburg in 2017. Such capital improvement projects will address emergent safety, regulatory and performance issues to assure ongoing compliant, efficient and reliable operation of the plant. Included in this fund for 2017 are upgrades to the E-Cell water purification system which is obsolete. An upgrade will ensure adequate supply of water to support combustion turbine operations.

Project Alternatives

For each identified project, alternatives will be evaluated on a cost basis and further on each alternative's expected effectiveness at addressing the emergent need.

Technical Aspects

Each individual project funded will be properly evaluated and engineered to effectively address an emergent need in a cost effective manner. Specific projects cannot be known at this time.

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	70316215	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	70316215	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	100,000	0	0	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	6,720	0	0	0	0	0	0	0	0	6,720
	928-AFUDC Debt Reg	0	0	0	0	139	279	0	0	0	0	0	0	0	418
929-AFUDC - Equity Regular		0	0	0	0	182	366	0	0	0	0	0	0	0	548
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	107,042	645	0	0	0	0	0	0	0	107,687
	825-Clearings	0	0	0	0	0	-107,687	0	0	0	0	0	0	0	-107,687
	Clr Sum	0	0	0	0	0	-107,687	0	0	0	0	0	0	0	-107,687
Proj Net		0	0	0	0	107,042	-107,042	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	70316215	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	6,720	0	0	0	0	0	0	0	0	0	0	0	0	6,720
	928-AFUDC Debt Reg	418	0	0	0	0	0	0	0	0	0	0	0	0	418
	929-AFUDC - Equity Regular	548	0	0	0	0	0	0	0	0	0	0	0	0	548
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	107,687	0	0	0	0	0	0	0	0	0	0	0	0	107,687
	825-Clearings	-107,687	0	0	0	0	0	0	0	0	0	0	0	0	-107,687
	Clr Sum	-107,687	0	0	0	0	0	0	0	0	0	0	0	0	-107,687
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 70316315 Lordsburg Capital Improvements 2018

Company: 003-Bulk Power
Location: 703 Lordsburg

Project Information

Construction Start Date 1/1/2018 Estimated Completion Date 12/31/2018

List Interim In-Service Dates

Individual projects will be placed in service as appropriate. All projects funded will be completed and In Service prior to December 31, 2018.

Project Need Justification

This project will fund various minor emergent capital improvement projects at Lordsburg in 2018. Such capital improvement projects will address emergent safety, regulatory and performance issues to assure ongoing compliant, efficient and reliable operation of the plant. Included in this fund for 2018 are upgrades to the E-Cell water purification system which is obsolete. An upgrade will ensure adequate supply of water to support combustion turbine operations.

Project Alternatives

For each identified project, alternatives will be evaluated on a cost basis and further on each alternative's expected effectiveness at addressing the emergent need.

Technical Aspects

Each individual project funded will be properly evaluated and engineered to effectively address an emergent need in a cost effective manner. Specific projects cannot be known at this time.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	70316315	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	70316315	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	70316315	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	65,000	0	0	50,000	0	0	25,000	0	0	0	140,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	4,368	0	0	3,360	0	0	1,680	0	0	0	9,408
	928-AFUDC Debt Reg	0	0	0	91	182	0	70	140	0	35	70	0	0	586
	929-AFUDC - Equity Regular	0	0	0	82	164	0	63	126	0	31	63	0	0	528
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	69,540	345	0	53,492	266	0	26,746	133	0	0	150,523
	825-Clearings	0	0	0	0	-69,886	0	0	-53,758	0	0	-26,879	0	0	-150,523
	Clr Sum	0	0	0	0	-69,886	0	0	-53,758	0	0	-26,879	0	0	-150,523
	Proj Net	0	0	0	69,540	-69,540	0	53,492	-53,492	0	26,746	-26,746	0	0	0

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Luna

Project No: 74416315 Luna Capital Improvements 2018

Company: 003-Bulk Power
Location: 744 Luna

Project Information

Construction Start Date 1/1/2018 Estimated Completion Date 12/31/2018

List Interim In-Service Dates

Individual Capital Improvement Projects funded under this Project Fund will be placed In Service as appropriate. All Capital Improvement Projects funded under this Project Fund will be completed and In Service prior to December 31, 2018.

Project Need Justification

This project will fund various minor emergent capital improvement projects at Luna in 2017. Such capital improvement projects will address emergent safety, regulatory and performance issues to assure ongoing compliant, efficient and reliable operation of the plant. Possible improvements include retirement and replacement of existing smaller capitalized equipment assets (e.g. such as control system components and small pumps) and structural improvements to the plant that enhance safety or ensure compliance (e.g. new work platforms and spill containment structures). This work is contractually obligated.

Project Alternatives

Capital improvement projects funded under this project will be completed only after approval to spend capital to address an emergent need. For each identified project, alternatives will be evaluated on a cost basis and based on each alternative's expected effectiveness at addressing the emergent need. No other alternatives are available, as this project is contractually obligated.

Technical Aspects

Each capital improvement project will be properly evaluated and engineered to effectively address an emergent need in a cost effective manner. Improvements will include retirement and replacement of existing smaller capitalized equipment assets (e.g. such as control system components and small pumps) and structural improvements to the plant that enhance safety or ensure compliance (e.g. new work platforms and spill containment structures).

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	74416315	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	74416315	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	74416315	Year 2018												Total
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
370-Outside Services	0	0	0	0	400,000	0	0	400,000	0	0	400,000	0	0	1,200,000
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0	0	0	0	-266,640	0	0	-266,640	0	0	-266,640	0	0	-799,920
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
928-AFUDC Debt Reg	0	0	0	0	188	376	0	188	376	0	188	376	0	1,693
929-AFUDC - Equity Regular	0	0	0	0	169	339	0	169	339	0	169	339	0	1,526
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	0	0	0	0	10,424	0	0	10,424	0	0	10,424	0	0	31,272
Cost Sum	0	0	0	0	144,141	716	0	144,141	716	0	144,141	716	0	434,570
825-Clearings	0	0	0	0	0	-144,857	0	0	-144,857	0	0	-144,857	0	-434,570
Clr Sum	0	0	0	0	0	-144,857	0	0	-144,857	0	0	-144,857	0	-434,570
Proj Net	0	0	0	0	144,141	-144,141	0	144,141	-144,141	0	144,141	-144,141	0	0

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Reeves

Project No: 71316017 Reeves U2 Boiler Optimizer

Company: 003-Bulk Power
Location: 713 Reeves

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 4/30/2017

List Interim In-Service Dates

0

Project Need Justification

This project will add new software and field devices to reduce nitrogen oxide (NOx) and carbon monoxide (CO) pollution. Currently, Reeves Unit II is having difficulty controlling NOx at full loads. As a temporary fix, the unit is running with 5 burners instead of 6. This causes higher burner pressure and the flame to touch the back water walls. Over time this may cause tube damage. This year, Reeves has been running longer and more often, and will continue that upward trend when the two San Juan units are shut down in 2017. This proposed software was added to Reeves Unit I and has been successful in improving pollutant control and is therefore recommended for Unit II.

Project Alternatives

The only other option is to do nothing. This option is not recommended because if the unit continues to operate at its current status, there is a high possibility an unexpected outage will occur and affect the unit's reliability.

Technical Aspects

PNM will solicit the services of Schneider Electric, which will provide equipment, materials and labor. PNM will manage the project and provide support.

Project Estimate Approach

PNM will solicit a bid proposal from Schneider electric for the scope of work. A project like this was completed on Reeves Unit 1 in 2014. PNM will compare cost of this project to the cost of the project completed in 2014 and if the cost is within the budget amount of the Reeves unit 1 earlier project, PNM will award the project to Schneider electric.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	71316017	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	71316017	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	1,500	1,500	0	0	0	0	0	0	0	0	3,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	169,372	0	0	0	0	0	0	0	0	0	169,372
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	103	103	0	0	0	0	0	0	0	0	207
	914-Pension and Benefits Load	0	0	0	474	474	0	0	0	0	0	0	0	0	949
	915-Injuries and Damages Load	0	0	0	34	34	0	0	0	0	0	0	0	0	68
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	11,483	101	0	0	0	0	0	0	0	0	11,583
	928-AFUDC Debt Reg	0	0	0	238	481	0	0	0	0	0	0	0	0	720
	929-AFUDC - Equity Regular	0	0	0	313	631	0	0	0	0	0	0	0	0	944
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	183,517	3,325	0	0	0	0	0	0	0	0	186,842
	825-Clearings	0	0	0	0	-186,842	0	0	0	0	0	0	0	0	-186,842
	Clr Sum	0	0	0	0	-186,842	0	0	0	0	0	0	0	0	-186,842
	Proj Net	0	0	0	183,517	-183,517	0	0	0	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	71316017	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,000	0	0	0	0	0	0	0	0	0	0	0	0	3,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	169,372	0	0	0	0	0	0	0	0	0	0	0	0	169,372
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non	Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	207	0	0	0	0	0	0	0	0	0	0	0	0	207
	914-Pension and Benefits Load	949	0	0	0	0	0	0	0	0	0	0	0	0	949
	915-Injuries and Damages Load	68	0	0	0	0	0	0	0	0	0	0	0	0	68
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	11,583	0	0	0	0	0	0	0	0	0	0	0	0	11,583
	928-AFUDC Debt Reg	720	0	0	0	0	0	0	0	0	0	0	0	0	720
	929-AFUDC - Equity Regular	944	0	0	0	0	0	0	0	0	0	0	0	0	944
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	186,842	0	0	0	0	0	0	0	0	0	0	0	0	186,842
	825-Clearings	-186,842	0	0	0	0	0	0	0	0	0	0	0	0	-186,842
	Clr Sum	-186,842	0	0	0	0	0	0	0	0	0	0	0	0	-186,842
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 71316117 Reeves U1 Attemperator Block Valves

Company: 003-Bulk Power
Location: 713 Reeves

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 5/31/2017

List Interim In-Service Dates

0

Project Need Justification

Reeves is required to start and shutdown at various times and with this varying load condition, the steam attemperation components are placed under heavy stress. An attemperator is a crucial fixture in controlling temperature quality and consistency for the generating units and its block valves are critical to overall system performance. Currently the attemperator blocks are being used to shut off flow to the attemperator during low loads and when the unit goes off line. At minimum loads, these control valves leak and eventually wear out. This causes water hammering which damages feed water lines, feedwater heaters and pipe hangers. Replacement is required to prevent thermal damage to either the pipelines or steam turbine. The project consists of removing and replacing the block valve and adjustment of the control logic to recommended specifications.

Project Alternatives

The only other option is to do nothing. This option is not recommended because if the unit continues to operate in current condition there is a high possibility of an outage will occur and affect the unit's reliability.

Technical Aspects

Black and Veatch will provide the design and PNM will solicit bids for project implementation. PNM will manage the project and provide support overall.

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	71316117	Year	2016								
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0			0	0	0	0	0	0	0	
120-Overtime-General	0			0	0	0	0	0	0	0	
350-Material Issues-Major	0			0	0	0	0	0	0	0	
370-Outside Services	0			0	0	0	0	0	0	0	
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	
530-Employee Expense	0			0	0	0	0	0	0	0	
610-Expenses - General	0			0	0	0	0	0	0	0	
805-Land and Land Rights	0			0	0	0	0	0	0	0	
807-Non Refundable Contribution	0			0	0	0	0	0	0	0	
829-Construction Adjustment	0			0	0	0	0	0	0	0	
426-Capitalized Interest	0			0	0	0	0	0	0	0	
908-Luna AR - Labor	0			0	0	0	0	0	0	0	
909-Luna AR - Other	0			0	0	0	0	0	0	0	
913-Payroll Taxes Load	0			0	0	0	0	0	0	0	
914-Pension and Benefits Load	0			0	0	0	0	0	0	0	
915-Injuries and Damages Load	0			0	0	0	0	0	0	0	
918-San Juan AR-Labor	0			0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0	
922-Minor Material Load	0			0	0	0	0	0	0	0	
925-E and S Loads	0			0	0	0	0	0	0	0	
926-A and G Loads	0			0	0	0	0	0	0	0	
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0	
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0	
937-San Juan AR - Other	0			0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	
Cost Sum	0			0	0	0	0	0	0	0	
825-Clearings	0			0	0	0	0	0	0	0	
Clr Sum	0			0	0	0	0	0	0	0	
Proj Net	0			0	0	0	0	0	0	0	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	71316117	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	2,000	1,000	1,000	0	0	0	0	0	0	0	4,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	110,022	36,527	0	0	0	0	0	0	0	0	146,549
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391~Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non	Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	138	69	69	0	0	0	0	0	0	0	276
914-Pension and	Benefits Load	0	0	0	632	316	316	0	0	0	0	0	0	0	1,265
915-Injuries and	Damages Load	0	0	0	45	23	23	0	0	0	0	0	0	0	90
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	7,528	2,522	67	0	0	0	0	0	0	0	10,117
	928-AFUDC Debt Reg	0	0	0	157	367	424	0	0	0	0	0	0	0	949
929-AFUDC - Equity	Regular	0	0	0	206	482	557	0	0	0	0	0	0	0	1,244
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNM R D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	120,728	41,306	2,456	0	0	0	0	0	0	0	164,489
	825-Clearings	0	0	0	0	0	-164,489	0	0	0	0	0	0	0	-164,489
	Clr Sum	0	0	0	0	0	-164,489	0	0	0	0	0	0	0	-164,489
Proj Net		0	0	0	120,728	41,306	-162,033	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	71316117	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,000	0	0	0	0	0	0	0	0	0	0	0	0	4,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	146,549	0	0	0	0	0	0	0	0	0	0	0	0	146,549
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	276	0	0	0	0	0	0	0	0	0	0	0	0	276
	914-Pension and Benefits Load	1,265	0	0	0	0	0	0	0	0	0	0	0	0	1,265
	915-Injuries and Damages Load	90	0	0	0	0	0	0	0	0	0	0	0	0	90
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	10,117	0	0	0	0	0	0	0	0	0	0	0	0	10,117
	928-AFUDC Debt Reg	949	0	0	0	0	0	0	0	0	0	0	0	0	949
	929-AFUDC - Equity Regular	1,244	0	0	0	0	0	0	0	0	0	0	0	0	1,244
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	164,489	0	0	0	0	0	0	0	0	0	0	0	0	164,489
	825-Clearings	-164,489	0	0	0	0	0	0	0	0	0	0	0	0	-164,489
	Clr Sum	-164,489	0	0	0	0	0	0	0	0	0	0	0	0	-164,489
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 71316217 Reeves U2 Attemperator Block Valves

Company: 003-Bulk Power
Location: 713 Reeves

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 5/31/2017

List Interim In-Service Dates

0

Project Need Justification

Reeves is required to start and shutdown at various times and with this varying load condition, the steam attemperation components are placed under heavy stress. An attemperator is a crucial fixture in controlling temperature quality and consistency for the generating units and its block valves are critical to overall system performance. Currently the attemperator blocks are being used to shut off flow to the attemperator during low loads and when the unit goes off line. At minimum loads, these control valves leak and eventually wear out. This causes water hammering which damages feed water lines, feedwater heaters and pipe hangers. Replacement is required to prevent thermal damage to either the pipelines or steam turbine. The project consists of removing and replacing the block valve and adjustment of the control logic to recommended specifications.

Project Alternatives

The only other option is to do nothing. This option is not recommended because if the unit continues to operate in current condition there is a high possibility of an outage will occur and affect the unit's reliability.

Technical Aspects

Black and Veatch will provide the design and PNM will solicit bids for project implementation. PNM will manage the project and provide support overall.

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	71316217	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
916-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	71316217	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	2,000	1,000	1,000	0	0	0	0	0	0	0	4,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	105,322	32,526	0	0	0	0	0	0	0	0	137,848
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	138	69	69	0	0	0	0	0	0	0	276
914-Pension and Benefits Load		0	0	0	632	316	316	0	0	0	0	0	0	0	1,265
915-Injuries and Damages Load		0	0	0	45	23	23	0	0	0	0	0	0	0	90
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	7,212	2,253	67	0	0	0	0	0	0	0	9,532
	928-AFUDC Debt Reg	0	0	0	150	349	400	0	0	0	0	0	0	0	899
929-AFUDC - Equity Regular		0	0	0	197	457	525	0	0	0	0	0	0	0	1,179
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	115,697	36,993	2,399	0	0	0	0	0	0	0	155,089
	825-Clearings	0	0	0	0	0	-155,089	0	0	0	0	0	0	0	-155,089
	Clr Sum	0	0	0	0	0	-155,089	0	0	0	0	0	0	0	-155,089
Proj Net		0	0	0	115,697	36,993	-152,689	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	71316217	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,000	0	0	0	0	0	0	0	0	0	0	0	0	4,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	137,848	0	0	0	0	0	0	0	0	0	0	0	0	137,848
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	276	0	0	0	0	0	0	0	0	0	0	0	0	276
914-Pension and Benefits Load		1,265	0	0	0	0	0	0	0	0	0	0	0	0	1,265
915-Injuries and Damages Load		90	0	0	0	0	0	0	0	0	0	0	0	0	90
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	9,532	0	0	0	0	0	0	0	0	0	0	0	0	9,532
	928-AFUDC Debt Reg	899	0	0	0	0	0	0	0	0	0	0	0	0	899
929-AFUDC - Equity Regular		1,179	0	0	0	0	0	0	0	0	0	0	0	0	1,179
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	155,089	0	0	0	0	0	0	0	0	0	0	0	0	155,089
	825-Clearings	-155,089	0	0	0	0	0	0	0	0	0	0	0	0	-155,089
	Clr Sum	-155,089	0	0	0	0	0	0	0	0	0	0	0	0	-155,089
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 71316416 Reeves CT Chemical Feed Upgrade

Company: 003-Bulk Power
Location: 713 Reeves

Project Information

Construction Start Date 7/15/2016 Estimated Completion Date 9/30/2016

List Interim In-Service Dates

0

Project Need Justification

The Reeves Station currently uses two companies to supply chemicals to cooling towers onsite. MIOX, the first vendor, provides a mixed oxidant solution generator system which creates a disinfectant to treat the water used in the cooling towers. This treatment stops the growth of algae and biofilms inside the cooling towers and piping. Currently, this system does not meet the sites needed amount of chemicals when the plant is online. Also NALCO, the second vendor, provides the other chemicals needed for cooling tower treatment. Currently, Reeves uses one NALCO blend of chemicals in the cooling towers called 3DT193. This blend prevents corrosion and scaling inside the cooling towers. NALCO has proposed replacing this one chemical with three different chemicals for treatment. These three chemicals will prevent silica-based scale formation, copper corrosion, cathodic corrosion, calcium carbonate scaling and reduce cooling tower blow down. In order to minimize chemical treatment heavy injection, both systems, the MIOX and NALCO chemical feed, will be automated to provide continuous control which will minimize chemical consumption. The scope of project includes upgrading the MIOX system, providing cooling treatment using three separate chemicals and full automation of the two systems. Further, this project is meant to reduce the amount of blow down and reduce chemical consumption. PNM engineering will provide the design, purchase equipment, manage schedules and project costs.

Project Alternatives

Doing nothing is not an option because the cooling towers requires an adequately sized MIOX mixed oxidant solution in order to function properly. If the system is not producing enough solution, the towers will not work as needed. The proposed solution will address these issues.

Technical Aspects

The overall chemical feed upgrade system consists of several components. The MIOX system capacity will be doubled. The current blend chemical feed system will be induced into the tower separately. New chemical feed pumps and respective piping will be installed. A flow stream piping system will be installed for chemical sampling and chemical injection. New chemical probes will be purchased and installed. New application software will be developed to automate the system.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	71316416	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	2,000	2,956	0	0	0	4,956		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	32,541	70,972	0	0	0	103,513		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	135	199	0	0	0	334		
914-Pension and Benefits Load	0			0	635	939	0	0	0	1,574		
915-Injuries and Damages Load	0			0	64	95	0	0	0	159		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	2,874	6,151	0	0	0	9,025		
928-AFUDC Debt Reg	0			0	43	178	0	0	0	221		
929-AFUDC - Equity Regular	0			0	47	193	0	0	0	240		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	38,338	81,682	0	0	0	120,020		
825-Clearings	0			0	0	-120,020	0	0	0	-120,020		
Clr Sum	0			0	0	-120,020	0	0	0	-120,020		
Proj Net	0			0	38,338	-38,338	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	71316416	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,956	0	0	0	0	0	0	0	0	0	0	0	0	4,956
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	103,513	0	0	0	0	0	0	0	0	0	0	0	0	103,513
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	334	0	0	0	0	0	0	0	0	0	0	0	0	334
	914-Pension and Benefits Load	1,574	0	0	0	0	0	0	0	0	0	0	0	0	1,574
	915-Injuries and Damages Load	159	0	0	0	0	0	0	0	0	0	0	0	0	159
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	9,025	0	0	0	0	0	0	0	0	0	0	0	0	9,025
	928-AFUDC Debt Reg	221	0	0	0	0	0	0	0	0	0	0	0	0	221
	929-AFUDC - Equity Regular	240	0	0	0	0	0	0	0	0	0	0	0	0	240
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	120,020	0	0	0	0	0	0	0	0	0	0	0	0	120,020
	825-Clearings	-120,020	0	0	0	0	0	0	0	0	0	0	0	0	-120,020
	Clr Sum	-120,020	0	0	0	0	0	0	0	0	0	0	0	0	-120,020
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	71316416	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,956	0	0	0	0	0	0	0	0	0	0	0	0	4,956
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	103,513	0	0	0	0	0	0	0	0	0	0	0	0	103,513
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	334	0	0	0	0	0	0	0	0	0	0	0	0	334
	914-Pension and Benefits Load	1,574	0	0	0	0	0	0	0	0	0	0	0	0	1,574
	915-Injuries and Damages Load	159	0	0	0	0	0	0	0	0	0	0	0	0	159
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	9,025	0	0	0	0	0	0	0	0	0	0	0	0	9,025
	928-AFUDC Debt Reg	221	0	0	0	0	0	0	0	0	0	0	0	0	221
	929-AFUDC - Equity Regular	240	0	0	0	0	0	0	0	0	0	0	0	0	240
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	120,020	0	0	0	0	0	0	0	0	0	0	0	0	120,020
	825-Clearings	-120,020	0	0	0	0	0	0	0	0	0	0	0	0	-120,020
	Clr Sum	-120,020	0	0	0	0	0	0	0	0	0	0	0	0	-120,020
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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San Juan

Project No: 76016223 Unit 3 Capitalization Wedge

Company: 003-Bulk Power
Location: 760 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 1/31/2017

List Interim In-Service Dates

0

Project Need Justification

This capitalization wedge was developed to cover maintenance related activities that meet the capitalization criteria. Work could include small to medium replacement of unforeseen equipment failures such as pump assemblies, medium size motors, rebuild or replacement of large components of larger equipment. Values of individual projects are typically less than \$100,000 and have the potential of exceeding \$1 million in total on an annual basis.

Project Alternatives

Doing nothing is not an acceptable option. Replacement options are evaluated against repair options considering cost, schedule and system criticality on a case by case basis.

Technical Aspects

Work could include small to medium replacement of unforeseen equipment failures such as pump assemblies, medium size motors, rebuild or replacement of large components of larger equipment. Design standards must be met when considering repair and replacement options.

Project Estimate Approach

Actual costs are recorded in plant maintenance management system to develop capital cost on an event basis. Repair and replacement alternatives are economically evaluated for best value and lowest evaluated cost based on bid price, delivery time, and age relate system requirements.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76016223	Year	2016	Jul	Aug	Sep	Oct	Nov	Dec	Total
Cost_Type	Bal 6/30/16									
110-Straight Time-General	26,528			0	0	0	0	0	0	26,528
120-Overtime-General	34,465			0	0	0	0	0	0	34,465
350-Material Issues-Major	1,134,516			0	0	0	0	0	0	1,134,516
370-Outside Services	194,803			0	0	0	0	0	0	194,803
374-Outside Svcs Legal	0			0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0
610-Expenses - General	0			0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0
807-Non Refundable Contribution	0			0	0	0	0	0	0	0
829-Construction Adjustment	0			0	0	0	-910	-910	-910	-2,730
426-Capitalized Interest	0			0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0
909-Luna AR - Other	0			0	0	0	0	0	0	0
913-Payroll Taxes Load	4,421			0	0	0	0	0	0	4,421
914-Pension and Benefits Load	8,391			0	0	0	0	0	0	8,391
915-Injuries and Damages Load	1,955			0	0	0	0	0	0	1,955
918-San Juan AR-Labor	0			0	0	0	0	0	0	0
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0
922-Minor Material Load	0			0	0	0	0	0	0	0
925-E and S Loads	0			0	0	0	0	0	0	0
926-A and G Loads	41,773			0	0	0	0	0	0	41,773
928-AFUDC Debt Reg	6,754			432	434	436	437	437	437	9,367
929-AFUDC - Equity Regular	8,796			468	470	472	473	473	473	11,625
937-San Juan AR - Other	0			0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0
Cost Sum	1,462,401			899	904	908	0	0	0	1,465,113
825-Clearings	-1,629,934			0	0	0	0	0	0	-1,629,934
Clr Sum	-1,629,934			0	0	0	0	0	0	-1,629,934
Proj Net	-167,532			899	904	908	0	0	0	-164,821

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76016223	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	26,528	0	0	0	0	0	0	0	0	0	0	0	0	26,528
	120-Overtime-General	34,465	0	0	0	0	0	0	0	0	0	0	0	0	34,465
	350-Material Issues-Major	1,134,516	0	0	0	0	0	0	0	0	0	0	0	0	1,134,516
	370-Outside Services	194,803	0	0	0	0	0	0	0	0	0	0	0	0	194,803
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non	Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,730	-1,167	0	0	0	0	0	0	0	0	0	0	0	-3,897
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	4,421	0	0	0	0	0	0	0	0	0	0	0	0	4,421
	914-Pension and Benefits Load	8,391	0	0	0	0	0	0	0	0	0	0	0	0	8,391
	915-Injuries and Damages Load	1,955	0	0	0	0	0	0	0	0	0	0	0	0	1,955
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	41,773	0	0	0	0	0	0	0	0	0	0	0	0	41,773
	928-AFUDC Debt Reg	9,367	505	0	0	0	0	0	0	0	0	0	0	0	9,872
	929-AFUDC - Equity Regular	11,625	662	0	0	0	0	0	0	0	0	0	0	0	12,287
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,465,113	0	0	0	0	0	0	0	0	0	0	0	0	1,465,113
	825-Clearings	-1,629,934	-194,297	0	0	0	0	0	0	0	0	0	0	0	-1,824,230
	Clr Sum	-1,629,934	-194,297	0	0	0	0	0	0	0	0	0	0	0	-1,824,230
Proj Net		-164,821	-194,296	0	0	0	0	0	0	0	0	0	0	0	-359,118

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76016223	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	26,528	0	0	0	0	0	0	0	0	0	0	0	0	26,528
	120-Overtime-General	34,465	0	0	0	0	0	0	0	0	0	0	0	0	34,465
	350-Material Issues-Major	1,134,516	0	0	0	0	0	0	0	0	0	0	0	0	1,134,516
	370-Outside Services	194,803	0	0	0	0	0	0	0	0	0	0	0	0	194,803
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-3,897	0	0	0	0	0	0	0	0	0	0	0	0	-3,897
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	4,421	0	0	0	0	0	0	0	0	0	0	0	0	4,421
	914-Pension and Benefits Load	8,391	0	0	0	0	0	0	0	0	0	0	0	0	8,391
	915-Injuries and Damages Load	1,955	0	0	0	0	0	0	0	0	0	0	0	0	1,955
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	41,773	0	0	0	0	0	0	0	0	0	0	0	0	41,773
	928-AFUDC Debt Reg	9,872	0	0	0	0	0	0	0	0	0	0	0	0	9,872
	929-AFUDC - Equity Regular	12,287	0	0	0	0	0	0	0	0	0	0	0	0	12,287
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,465,113	0	0	0	0	0	0	0	0	0	0	0	0	1,465,113
	825-Clearings	-1,824,230	0	0	0	0	0	0	0	0	0	0	0	0	-1,824,230
	Clr Sum	-1,824,230	0	0	0	0	0	0	0	0	0	0	0	0	-1,824,230
	Proj Net	-359,118	0	0	0	0	0	0	0	0	0	0	0	0	-359,118

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Project No: 76016224 Unit 4 Capitalization Wedge

Company: 003-Bulk Power
Location: 760 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 1/31/2017

List Interim In-Service Dates

0

Project Need Justification

This capitalization wedge was developed to cover maintenance related activities that meet the capitalization criteria. Work could include small to medium replacement of unforeseen equipment failures such as pump assemblies, medium size motors, rebuild or replacement of large components of larger equipment. Values of individual projects are typically less than \$100,000 and have the potential of exceeding \$1 million in total on an annual basis.

Project Alternatives

Doing nothing is not an acceptable option. Replacement options are evaluated against repair options considering cost, schedule and system criticality on a case by case basis.

Technical Aspects

Work could include small to medium replacement of unforeseen equipment failures such as pump assemblies, medium size motors, rebuild or replacement of large components of larger equipment. Design standards must be met when considering repair and replacement options.

Project Estimate Approach

Actual costs are recorded in plant maintenance management system to develop capital cost on an event basis. Repair and replacement alternatives are economically evaluated for best value and lowest evaluated cost based on bid price, delivery time, and age relate system requirements.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76016224	Year	2016	Jul	Aug	Sep	Oct	Nov	Dec	Total
Cost_Type		Bal 6/30/16								
110-Straight Time-General		13,997		0	0	0	0	0	0	13,997
120-Overtime-General		15,321		0	0	0	0	0	0	15,321
350-Material Issues-Major		731,383		0	0	0	0	0	0	731,383
370-Outside Services		40,918		0	0	0	0	0	0	40,918
374-Outside Svcs Legal		0		0	0	0	0	0	0	0
377-Outside Services-Temp Labor		0		0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0		0	0	0	0	0	0	0
530-Employee Expense		0		0	0	0	0	0	0	0
610-Expenses - General		0		0	0	0	0	0	0	0
805-Land and Land Rights		0		0	0	0	0	0	0	0
807-Non Refundable Contribution		0		0	0	0	0	0	0	0
829-Construction Adjustment		0		0	0	0	-547	-547	-547	-1,640
426-Capitalized Interest		0		0	0	0	0	0	0	0
908-Luna AR - Labor		0		0	0	0	0	0	0	0
909-Luna AR - Other		0		0	0	0	0	0	0	0
913-Payroll Taxes Load		2,151		0	0	0	0	0	0	2,151
914-Pension and Benefits Load		4,202		0	0	0	0	0	0	4,202
915-Injuries and Damages Load		961		0	0	0	0	0	0	961
918-San Juan AR-Labor		0		0	0	0	0	0	0	0
921-Stores / Purchasing Load		0		0	0	0	0	0	0	0
922-Minor Material Load		0		0	0	0	0	0	0	0
925-E and S Loads		0		0	0	0	0	0	0	0
926-A and G Loads		21,241		0	0	0	0	0	0	21,241
928-AFUDC Debt Reg		2,353		259	261	262	262	262	262	3,922
929-AFUDC - Equity Regular		2,670		281	282	284	284	284	284	4,369
937-San Juan AR - Other		0		0	0	0	0	0	0	0
961-Luna A&G PNMR D&V		0		0	0	0	0	0	0	0
Cost Sum		835,197		540	543	545	0	0	0	836,825
825-Clearings		-810,576		0	0	0	0	0	0	-810,576
Clr Sum		-810,576		0	0	0	0	0	0	-810,576
Proj Net		24,621		540	543	545	0	0	0	26,249

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76016224	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	13,997	0	0	0	0	0	0	0	0	0	0	0	0	13,997	
120-Overtime-General	15,321	0	0	0	0	0	0	0	0	0	0	0	0	15,321	
350-Material Issues-Major	731,383	0	0	0	0	0	0	0	0	0	0	0	0	731,383	
370-Outside Services	40,918	0	0	0	0	0	0	0	0	0	0	0	0	40,918	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	-1,640	-701	0	0	0	0	0	0	0	0	0	0	0	-2,341	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	2,151	0	0	0	0	0	0	0	0	0	0	0	0	2,151	
914-Pension and Benefits Load	4,202	0	0	0	0	0	0	0	0	0	0	0	0	4,202	
915-Injuries and Damages Load	961	0	0	0	0	0	0	0	0	0	0	0	0	961	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	21,241	0	0	0	0	0	0	0	0	0	0	0	0	21,241	
928-AFUDC Debt Reg	3,922	303	0	0	0	0	0	0	0	0	0	0	0	4,225	
929-AFUDC - Equity Regular	4,369	398	0	0	0	0	0	0	0	0	0	0	0	4,767	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	836,825	0	0	0	0	0	0	0	0	0	0	0	0	836,825	
825-Clearings	-810,576	-116,696	0	0	0	0	0	0	0	0	0	0	0	-927,272	
Clr Sum	-810,576	-116,696	0	0	0	0	0	0	0	0	0	0	0	-927,272	
Proj Net	26,249	-116,696	0	0	0	0	0	0	0	0	0	0	0	-90,447	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76016224	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	13,997	0	0	0	0	0	0	0	0	0	0	0	0	13,997
	120-Overtime-General	15,321	0	0	0	0	0	0	0	0	0	0	0	0	15,321
	350-Material Issues-Major	731,383	0	0	0	0	0	0	0	0	0	0	0	0	731,383
	370-Outside Services	40,918	0	0	0	0	0	0	0	0	0	0	0	0	40,918
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,341	0	0	0	0	0	0	0	0	0	0	0	0	-2,341
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	2,151	0	0	0	0	0	0	0	0	0	0	0	0	2,151
	914-Pension and Benefits Load	4,202	0	0	0	0	0	0	0	0	0	0	0	0	4,202
	915-Injuries and Damages Load	961	0	0	0	0	0	0	0	0	0	0	0	0	961
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	21,241	0	0	0	0	0	0	0	0	0	0	0	0	21,241
	928-AFUDC Debt Reg	4,225	0	0	0	0	0	0	0	0	0	0	0	0	4,225
	929-AFUDC - Equity Regular	4,767	0	0	0	0	0	0	0	0	0	0	0	0	4,767
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	836,825	0	0	0	0	0	0	0	0	0	0	0	0	836,825
	825-Clearings	-927,272	0	0	0	0	0	0	0	0	0	0	0	0	-927,272
	Clr Sum	-927,272	0	0	0	0	0	0	0	0	0	0	0	0	-927,272
	Proj Net	-90,447	0	0	0	0	0	0	0	0	0	0	0	0	-90,447

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Project No: 76116017 Unit 1 Hydrogen Gas and Cooling Water Regulators

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

<u>Construction Start Date</u>	6/1/2017	<u>Estimated Completion Date</u>	6/30/2018
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

Currently water and gas pressure regulators do no work per specifications, which has led to hydrogen gas pressure fluctuations. This project will replace the water and gas regulators with new regulators that will allow for operation with constant hydrogen pressure and reduce risks related to monitoring the capability curve. The adjustments needed relate to both dihydrogen (H2) and cooling water pressure.

Project Alternatives

The only other alternative would be to continue regulation of these pressures manually. This approach increases the risk of water entering the generator and the inability to maintain hydrogen purity, which both lead to negative impacts to long term operation of the generator.

Technical Aspects

Technical aspects for the project will involve replacement of regulators and control function ties to ensure prompt response time within PNM's current controls system.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116017	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116017	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	10,030	33	9,980	9,980	9,980	40,003
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	1	0	0	0	0	0	0	0	1
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	107	0	107	107	107	428
	926-A and G Loads	0	0	0	0	0	0	0	0	238	1	237	237	237	948
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	7	14	20	34	48	122
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	9	18	27	45	63	161
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	-5,188	-17	-5,162	-5,162	-5,162	-20,690
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	1	0	0	5,203	48	5,209	5,240	5,272	20,974
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	1	0	0	5,203	48	5,209	5,240	5,272	20,974

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76116017	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	40,003	76,678	28,663	57,065	18,520	18,589	10,223	0	0	0	0	0	0	249,740	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	428	820	307	611	198	199	109	0	0	0	0	0	0	2,672	
926-A and G Loads	948	1,817	679	1,352	439	441	242	0	0	0	0	0	0	5,919	
928-AFUDC Debt Reg	122	107	178	237	289	316	337	0	0	0	0	0	0	1,586	
929-AFUDC - Equity Regular	161	96	161	214	261	285	304	0	0	0	0	0	0	1,480	
937-San Juan AR - Other	-20,690	-39,658	-14,824	-29,514	-9,579	-9,614	-5,287	0	0	0	0	0	0	-129,166	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	20,974	39,861	15,163	29,965	10,129	10,214	5,927	0	0	0	0	0	0	132,232	
825-Clearings	0	0	0	0	0	0	-132,232	0	0	0	0	0	0	-132,232	
Clr Sum	0	0	0	0	0	0	-132,232	0	0	0	0	0	0	-132,232	
Proj Net	20,974	39,861	15,163	29,965	10,129	10,214	-126,305	0	0	0	0	0	0	0	

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Project No: 76116067 Unit 1 SO2 Auxiliary Transformer and Cable Diff Relay

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

<u>Construction Start Date</u>	6/1/2017	<u>Estimated Completion Date</u>	4/30/2018
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

In the past, protective relay designs similar to that at Unit 1 have failed in the past 3-4 years and were repaired with spare relays. Spare are no longer available and the current design is obsolete. Replacement is required to ensure reliable unit operation. Not replacing the protective relaying introduces the potential for a significant safety event and could result in extended unit outage resulting in lost generation.

Project Alternatives

There are no other alternatives. Doing nothing is not an acceptable option because of the inability to procure replacement parts.

Technical Aspects

Protective relaying is essential to equipment safety and improves plant safety. Active relaying monitors the operational parameters of the transformer and will automatically trip the interconnects near the transformer in the event of a problem.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116067	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116067	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	9,700	0	0	9,700
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	104	0	0	104
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	230	0	0	230
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	7	13	13	33
929-AFUDC - Equity Regular		0	0	0	0	0	0	0	0	0	0	9	17	17	43
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	-5,017	0	0	-5,017
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	5,032	30	31	5,093
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	5,032	30	31	5,093

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76116067	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	9,700	0	96,000	96,000	47,500	0	0	0	0	0	0	0	0	249,200
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	104	0	1,027	1,027	508	0	0	0	0	0	0	0	0	2,666
	926-A and G Loads	230	0	2,275	2,275	1,126	0	0	0	0	0	0	0	0	5,906
	928-AFUDC Debt Reg	33	13	78	208	306	0	0	0	0	0	0	0	0	639
929-AFUDC - Equity Regular		43	12	70	188	276	0	0	0	0	0	0	0	0	589
	937-San Juan AR - Other	-5,017	0	-49,651	-49,651	-24,567	0	0	0	0	0	0	0	0	-128,886
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	5,093	25	49,800	50,047	25,149	0	0	0	0	0	0	0	0	130,114
	825-Clearings	0	0	0	0	-130,114	0	0	0	0	0	0	0	0	-130,114
	Clr Sum	0	0	0	0	-130,114	0	0	0	0	0	0	0	0	-130,114
Proj Net		5,093	25	49,800	50,047	-104,965	0	0	0	0	0	0	0	0	0

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Project No: 76116116 Unit 1 Baghouse Bags - 2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

<u>Construction Start Date</u>	3/1/2017	<u>Estimated Completion Date</u>	5/31/2018
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

The San Juan Unit 1 baghouse is used to remove particulate from the process and maintain compliance with various regulations. The baghouse is a pulse jet design with bags supported by cages. Over time these bags become worn and unusable. Standard life is 4-6 years based on operation and ash loading. This project would replace the bags that have reached their end of life in the baghouse during the 2018 scheduled outage. Materials will be purchased in year 2017. This project is necessary to maintain compliance with regulations.

Project Alternatives

Because this project is related to compliance, there are not many alternatives. The only variability available is in deciding the type of bag to be used. If lower quality bags are used, their useful life will be less than economically feasible and push the unit further out of sync with scheduled outage periods. Though partial bag replacement can be done with the facility online, full bag replacements like these will require outages.

Technical Aspects

Baghouse bags collect ash on their cloth film which is then captured by the bag's pulsing motion. This project would involve removal of existing bags and cages, inspection of cage to determine the need for repair or replacement, installation of new bag and cages, and installation of bag within the proper compartment.

Project Estimate Approach

Project estimate is based on cost of previous projects. All baghouses at the station are of similar design with only size variations.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116116	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116116	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	2,500	2,500	0	0	5,000	10,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	27	27	0	0	54	107
	926-A and G Loads	0	0	0	0	0	0	0	0	59	59	0	0	119	237
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	2	5	7	7	10	31
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	2	7	9	9	13	40
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	-1,293	-1,293	0	0	-2,586	-5,172
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	1,297	1,305	16	16	2,610	5,243
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	1,297	1,305	16	16	2,610	5,243

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76116116	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	10,000	238,580	238,580	45,500	34,500	15,400	0	0	0	0	0	0	0	582,560	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	107	2,553	2,553	487	369	165	0	0	0	0	0	0	0	6,233	
926-A and G Loads	237	5,654	5,654	1,078	818	365	0	0	0	0	0	0	0	13,807	
928-AFUDC Debt Reg	31	175	498	692	750	787	0	0	0	0	0	0	0	2,932	
929-AFUDC - Equity Regular	40	158	449	624	675	710	0	0	0	0	0	0	0	2,656	
937-San Juan AR - Other	-5,172	-123,394	-123,394	-23,533	-17,843	-7,965	0	0	0	0	0	0	0	-301,300	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	5,243	123,726	124,340	24,849	19,269	9,462	0	0	0	0	0	0	0	306,888	
825-Clearings	0	0	0	0	0	-306,888	0	0	0	0	0	0	0	-306,888	
Clr Sum	0	0	0	0	0	-306,888	0	0	0	0	0	0	0	-306,888	
Proj Net	5,243	123,726	124,340	24,849	19,269	-297,427	0	0	0	0	0	0	0	0	

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Project No: 76116118 Unit 1 Demister Pads - 2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 5/31/2018

List Interim In-Service Dates

0

Project Need Justification

This project is for replacement of one layer of demister pads on all three absorber cells of Unit 1. Demister pads are used to remove particulate and water from the system prior the flue gas entering the stack. If they fail, particulate will bypass the pads and reach the stack. Based on their lifecycle one layer of demister pads are replaced every schedule outage to maintain particulate and SO2 compliance.

Project Alternatives

There are two other alternatives to replacing the pads: Option 1: This is the "do nothing" option. This is not a true option as failure to address dirty/failing pads results in the escape of particulate matter into the stacks Option 2: Clean the pads. Currently pads are cleaned during any maintenance outage where inspection shows the need already. However, inspections have shown that the pads have reached a point of degradation where cleaning will not address the performance issues of the pads. Therefore these pads will be replaced.

Technical Aspects

Demister pads separate slurry and liquid from the flue gas at the top of the absorber cells prior to reaching the stack and atmosphere. As degradation happens over time the pads are replaced, This project would remove the supports holding the pads in place, removal and disposal of the old pads, installation of the new pads, and installation of hold down supports. This project is an outage required task with installation in the scheduled outage of 2018 with material ordering for proper planning taking place in year 2017.

Project Estimate Approach

This project estimate is based on past similar projects that have been executed.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116118	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116118	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	4,935	4,935	0	0	0	0	9,650	9,650	29,170
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391~Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	53	53	0	0	0	0	103	103	312
	926-A and G Loads	0	0	0	0	0	117	117	0	0	0	0	229	229	691
	928-AFUDC Debt Reg	0	0	0	0	0	3	10	13	13	14	14	20	33	121
929-AFUDC - Equity Regular		0	0	0	0	0	4	13	18	18	18	18	27	44	159
	937-San Juan AR - Other	0	0	0	0	0	-2,552	-2,552	0	0	0	0	-4,991	-4,991	-15,087
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	2,560	2,575	31	31	31	32	5,038	5,068	15,366
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	2,560	2,575	31	31	31	32	5,038	5,068	15,366

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76116118	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	29,170	96,500	96,500	96,000	28,000	9,500	0	0	0	0	0	0	0	355,670
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	312	1,033	1,033	1,027	300	102	0	0	0	0	0	0	0	3,806
	926-A and G Loads	691	2,287	2,287	2,275	664	225	0	0	0	0	0	0	0	8,429
	928-AFUDC Debt Reg	121	105	236	367	453	480	0	0	0	0	0	0	0	1,763
	929-AFUDC - Equity Regular	159	95	213	331	408	433	0	0	0	0	0	0	0	1,639
	937-San Juan AR - Other	-15,087	-49,910	-49,910	-49,651	-14,482	-4,913	0	0	0	0	0	0	0	-183,953
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	15,366	50,110	50,359	50,350	15,343	5,827	0	0	0	0	0	0	0	187,355
	825-Clearings	0	0	0	0	0	-187,355	0	0	0	0	0	0	0	-187,355
	Clr Sum	0	0	0	0	0	-187,355	0	0	0	0	0	0	0	-187,355
Proj Net		15,366	50,110	50,359	50,350	15,343	-181,528	0	0	0	0	0	0	0	0

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Project No: 76116217 Unit 1 Absorber Vessel Coating - 2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 7/31/2018

List Interim In-Service Dates

0

Project Need Justification

The Unit 1 absorber interior walls are indicating signs of wear around the limestone spray nozzle area. The abrasive nature of limestone solution on the absorber walls have worn away protective coatings and been absorbed into the structural concrete substrate. The eroded area should be blasted and filled with an acid resistant grout and abrasive resistant coating. The structural integrity of the absorber wall is dependent on a reliable interior protective coating. Installation of new grout and abrasive resistant coatings will ensure the structural integrity of the absorber walls.

Project Alternatives

There are limited alternatives to this project other than the recommended option. Other types of patching would require the same access as the recommended solution. Doing nothing would leave the area exposed and further risk the structural integrity of the cells.

Technical Aspects

Technical work aspects include installation of scaffolding for access, cleaning the areas, installing acid resistant grout, coating the grout after curing, and removal of access. This is an outage required task recommended for the 2018 scheduled outage with procurement to begin in year 2017.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116217	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116217	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	9,800	33	33	9,600	19,467
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	105	0	0	103	208
	926-A and G Loads	0	0	0	0	0	0	0	0	0	232	1	1	228	461
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	7	13	13	20	53
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	9	17	18	26	70
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	-5,069	-17	-17	-4,965	-10,068
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	5,084	48	48	5,011	10,191
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	0	5,084	48	48	5,011	10,191

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76116217	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	19,467	28,500	87,000	96,000	97,000	77,000	47,000	24,000	0	0	0	0	0	475,967	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	208	305	931	1,027	1,038	824	503	257	0	0	0	0	0	5,093	
926-A and G Loads	461	675	2,062	2,275	2,299	1,825	1,114	569	0	0	0	0	0	11,280	
928-AFUDC Debt Reg	53	46	124	248	380	499	585	636	0	0	0	0	0	2,572	
929-AFUDC - Equity Regular	70	41	112	224	342	450	528	574	0	0	0	0	0	2,341	
937-San Juan AR - Other	-10,068	-14,740	-44,996	-49,651	-50,168	-39,824	-24,308	-12,413	0	0	0	0	0	-246,170	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	10,191	14,827	45,232	50,123	50,891	40,774	25,422	13,623	0	0	0	0	0	251,083	
825-Clearings	0	0	0	0	0	0	0	-251,083	0	0	0	0	0	-251,083	
Clr Sum	0	0	0	0	0	0	0	-251,083	0	0	0	0	0	-251,083	
Proj Net	10,191	14,827	45,232	50,123	50,891	40,774	25,422	-237,460	0	0	0	0	0	0	

Project No: 76116230 Unit 1 Emergency Diesel Generator - 2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

Construction Start Date 3/1/2018 Estimated Completion Date 11/30/2018

List Interim In-Service Dates

0

Project Need Justification

The purpose of an emergency diesel generator is to have an alternate power supply for critical systems if power is lost to the unit. Though batteries can and have been used, their life is limited and cannot last long-term. Currently, the Unit 1 generator is old and parts are becoming more difficult to find for maintenance and repairs. While the performance combustion process has been within limits for the generator installed, its current range is reaching undesired levels. It is engineering's recommendation that a new diesel generator be purchased and installed to retain reliability.

Project Alternatives

The first alternative is to replace the generator with a new one. This has been evaluated as lowest cost alternative and would be designed to meet current environmental requirements. A second alternative is to move the more modern Unit 3 generator to Unit 1's location. This option is not acceptable since it will require an engine upgrade to meet current environmental requirements thus deeming it not the lowest cost alternative. Based on the performance and criticality of the generator, doing nothing is not an acceptable option.

Technical Aspects

This project would consist of analysis to specify the specific new generator needed, a review of permitting with environmental personnel, purchase of a new generator, removal of the existing generator, and calibration/installation of a new generator. Though this project does not require an outage, it could be built and tied in during a maintenance outage event.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116230	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116230	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76116230	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	9,700	18,900	0	0	289,000	95,500	47,000	0	460,100
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	104	202	0	0	3,092	1,022	503	0	4,923
	926-A and G Loads	0	0	0	0	0	230	448	0	0	6,849	2,263	1,114	0	10,904
	928-AFUDC Debt Reg	0	0	0	0	0	7	26	39	39	234	495	594	0	1,434
	929-AFUDC - Equity Regular	0	0	0	0	0	6	23	35	35	211	446	535	0	1,292
	937-San Juan AR - Other	0	0	0	0	0	-5,017	-9,775	0	0	-149,471	-49,393	-24,308	0	-237,964
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	5,029	9,824	74	74	149,916	50,334	25,438	0	240,690
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	-240,690	0	-240,690
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	-240,690	0	-240,690
	Proj Net	0	0	0	0	0	5,029	9,824	74	74	149,916	50,334	-215,252	0	0

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Project No: 76116417 Unit 1 Hydroclone Underflow Piping - 2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 5/31/2018

List Interim In-Service Dates

0

Project Need Justification

The existing Unit 1 hydroclone underflow piping has not been replaced since its original installation and configuration. It is now necessary for this system to be replaced. Dependable hydroclone operation is crucial to absorber reliability and proper operation.

Project Alternatives

The piping has been patched several times and is now to the point that this is no longer an option. Alternatives vary only with the type of piping it can be replaced with. For example, the current design is steel with rubber lining that can be changed out to basalt pipe at a higher expense with longer remaining life. Existing pipe has lasted 20 years.

Technical Aspects

Technical aspects include ensuring piping layout remains the same and bidding piping out, removing existing piping and installing new pipe. Existing piping supports will be reused. This is an outage required task with work scheduled to occur in 2018 and procurement and engineering beginning in 2017.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116417	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116417	Year	2017													
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
370-Outside Services	0	0	0	0	0	0	0	0	0	9,646	32	32	9,800	19,510		
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
925-E and S Loads	0	0	0	0	0	0	0	0	0	103	0	0	105	209		
926-A and G Loads	0	0	0	0	0	0	0	0	0	229	1	1	232	462		
928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	7	13	13	20	53		
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	9	17	17	26	69		
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	-4,989	-16	-17	-5,069	-10,090		
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Cost Sum	0	0	0	0	0	0	0	0	0	5,004	47	47	5,115	10,212		
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Proj Net	0	0	0	0	0	0	0	0	0	5,004	47	47	5,115	10,212		

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76116417	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	19,510	48,000	28,000	48,000	105,000	10,000	0	0	0	0	0	0	0	258,510
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	209	514	300	514	1,124	107	0	0	0	0	0	0	0	2,766
	926-A and G Loads	462	1,138	664	1,138	2,489	237	0	0	0	0	0	0	0	6,127
	928-AFUDC Debt Reg	53	59	111	163	267	346	0	0	0	0	0	0	0	997
	929-AFUDC - Equity Regular	69	53	100	147	240	312	0	0	0	0	0	0	0	921
	937-San Juan AR - Other	-10,090	-24,826	-14,482	-24,826	-54,306	-5,172	0	0	0	0	0	0	0	-133,701
	961-Luna A&G PNM D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	10,212	24,938	14,692	25,135	54,813	5,829	0	0	0	0	0	0	0	135,619
	825-Clearings	0	0	0	0	0	-135,619	0	0	0	0	0	0	0	-135,619
	Clr Sum	0	0	0	0	0	-135,619	0	0	0	0	0	0	0	-135,619
	Proj Net	10,212	24,938	14,692	25,135	54,813	-129,790	0	0	0	0	0	0	0	0

Project No: 76116518 Unit 1 Absorber Recirculation Pump Discharge Piping

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

<u>Construction Start Date</u>	5/1/2017	<u>Estimated Completion Date</u>	3/31/2018
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

This project will replace the absorber recirculation pump discharge piping. Currently, there are three absorbers cells and two pumps per cell. In total, 6 piping sections would be replaced. This piping has degraded over time from erosion caused by the slurry traveling through the piping. This has resulted in leaks on the system that have been patched with clamps or repaired with new lining installations. Though the existing piping is steel with a rubber liner, a similar project was completed at San Juan Unit 4 using full rubber piping and was installed successfully. This is an outage required task.

Project Alternatives

There are no other alternative to replacing the piping. The choice in the replacement piping itself has the option to use the same material or the complete rubber option. Using the current material would shorten total life of the piping. Also as pieces of the steel/rubber option fail, the efficiency of SO2 removal would decrease as well .Additionally, doing nothing would result in forced outages and additional piping costs as a result of unscheduled maintenance. Overall, PNM risks increased cost and increased exposure to lost generation to maintain SO2 compliance.

Technical Aspects

This piping is used to transport limestone slurry from the absorber sump to the sprays to create a chemical reaction that forces SO2 removal. This project would consist of building access to the piping, removal of existing piping, and the installation of new design piping. This is an outage required task and will be performed in year 2018 with piping purchased in 2017.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116518	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116518	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	4,800	0	48,000	0	52,800
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	51	0	514	0	565
	926-A and G Loads	0	0	0	0	0	0	0	0	0	114	0	1,138	0	1,251
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	3	6	39	71	120
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	4	9	51	94	158
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	-2,483	0	-24,826	0	-27,308
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	2,490	15	24,915	165	27,586
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	0	2,490	15	24,915	165	27,586

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76116518	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	52,800	96,750	72,563	29,025	0	0	0	0	0	0	0	0	0	251,138
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	810-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	565	1,035	776	311	0	0	0	0	0	0	0	0	0	2,687
	926-A and G Loads	1,251	2,293	1,720	688	0	0	0	0	0	0	0	0	0	5,952
	928-AFUDC Debt Reg	120	137	252	322	0	0	0	0	0	0	0	0	0	832
	929-AFUDC - Equity Regular	158	124	228	291	0	0	0	0	0	0	0	0	0	799
	937-San Juan AR - Other	-27,308	-50,039	-37,529	-15,012	0	0	0	0	0	0	0	0	0	-129,888
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	27,586	50,300	38,009	15,624	0	0	0	0	0	0	0	0	0	131,520
	825-Clearings	0	0	0	-131,520	0	0	0	0	0	0	0	0	0	-131,520
	Clr Sum	0	0	0	-131,520	0	0	0	0	0	0	0	0	0	-131,520
	Proj Net	27,586	50,300	38,009	-115,895	0	0	0	0	0	0	0	0	0	0

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Project No: 76116817 Unit 1 Boiler Acoustic Leak Detection System - 2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

<u>Construction Start Date</u>	3/1/2017	<u>Estimated Completion Date</u>	3/31/2018
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

Acoustic leak detectors are used as an early warning device for tube leaks in the boiler, early detection allows for decision making and the ability to bring units off line earlier than otherwise. These can reduce collateral damage, and returns the unit to service quicker thereby increasing reliability. This project consists of installing 36 acoustic leak detection sensors throughout the Unit 1 boiler. These sensors will be hard wired to the acoustic leak detection monitoring system located in the Unit 2 relay room. The system will be monitored by the digital control system and also by the control board operators. The operators will monitor the system from a distributed control system (DCS) screen located in the control room and current graphics will be modified to incorporate the additional 36 sensors.

Project Alternatives

The only alternative to this project is to do nothing, which would waste the project materials on site.

Technical Aspects

Project consists of penetrating the boiler casing, installing probes, then wiring those probes to I/O cabinets, verifying connectivity of wiring, and commissioning the equipment. This is an outage required task to be executed during the 2018 scheduled outage with engineering completed in 2017.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116817	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116817	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76116817	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	241,250	0	0	0	0	0	0	0	0	0	241,250
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	2,581	0	0	0	0	0	0	0	0	0	2,581
	926-A and G Loads	0	0	0	5,718	0	0	0	0	0	0	0	0	0	5,718
	928-AFUDC Debt Reg	0	0	0	163	0	0	0	0	0	0	0	0	0	163
	929-AFUDC - Equity Regular	0	0	0	147	0	0	0	0	0	0	0	0	0	147
	937-San Juan AR - Other	0	0	0	-124,775	0	0	0	0	0	0	0	0	0	-124,775
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	125,084	0	0	0	0	0	0	0	0	0	125,084
	825-Clearings	0	0	0	-125,084	0	0	0	0	0	0	0	0	0	-125,084
	Clr Sum	0	0	0	-125,084	0	0	0	0	0	0	0	0	0	-125,084
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 76116819 Unit 1 Pulverizer Mill Primary Air Shutoff Valve Damper Drives -2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

Construction Start Date 2/1/2017 Estimated Completion Date 6/30/2018

List Interim In-Service Dates
0

Project Need Justification

Unit 1 primarily uses air to dry and transport coal from the pulverizers to the boiler. When the pulverizer is off, the dampers must close and provide positive isolation that does not allow air through the pulverizer. Currently, the existing dampers stick (become unresponsive) and often do not open immediately, delaying the start-up time of the pulverizer and causing additional maintenance costs. Engineering determined the problem lies with the damper actuators (i.e. drives). Testing done on a new pulverizer design has proven successful. This project will install these new-design drives on all pulverizers of Unit 1.

Project Alternatives

The only alternative would be to do nothing and further risk reliability and increase necessary maintenance. Installation of new damper drives as recommended, as it has a relatively low capital cost and will improve reliability.

Technical Aspects

This project consists of purchasing new drives, removing wiring and tubing from existing drives, installing the new drives, and installation of new wiring and tubing. This work must be done during an outage and is scheduled for installation in year 2018. Engineering and procurement will begin in 2017.

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76116819	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76116819	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	9,834	9,800	0	0	19,634
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	105	105	0	0	210
	926-A and G Loads	0	0	0	0	0	0	0	0	0	233	232	0	0	465
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	7	20	27	27	80
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	9	26	35	35	105
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	-5,086	-5,069	0	0	-10,155
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	5,102	5,115	62	62	10,340
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	0	5,102	5,115	62	62	10,340

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76116819	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	19,634	9,500	47,000	144,000	96,500	28,000	19,000	0	0	0	0	0	0	363,634
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	210	102	503	1,541	1,033	300	203	0	0	0	0	0	0	3,891
	926-A and G Loads	465	225	1,114	3,413	2,287	664	450	0	0	0	0	0	0	8,618
	928-AFUDC Debt Reg	80	33	72	201	365	450	484	0	0	0	0	0	0	1,685
	929-AFUDC - Equity Regular	105	30	65	181	329	406	437	0	0	0	0	0	0	1,552
	937-San Juan AR - Other	-10,155	-4,913	-24,308	-74,477	-49,910	-14,482	-9,827	0	0	0	0	0	0	-188,072
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	10,340	4,977	24,445	74,859	50,603	15,338	10,748	0	0	0	0	0	0	191,309
	825-Clearings	0	0	0	0	0	0	-191,309	0	0	0	0	0	0	-191,309
	Clr Sum	0	0	0	0	0	0	-191,309	0	0	0	0	0	0	-191,309
Proj Net		10,340	4,977	24,445	74,859	50,603	15,338	-180,561	0	0	0	0	0	0	0

Project No: 76117017 Unit 1 Absorber Area Sump Replacement - 2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

<u>Construction Start Date</u>	3/1/2017	<u>Estimated Completion Date</u>	7/31/2018
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

The station has recently installed a new selective non catalytic reduction system on Unit 1. As part of this installation, issues have arisen related to ammonia concentration buildup in the absorber cells. Although this build-up has not impacted the performance of this system, the slurry management of this ammonia can and has affected our demineralizer system as a zero liquid discharge facility. It is key to keep our process separate, as some of our system goes to floor drains and the ponds in the absorber area. This project would bring all drain systems into a common sump for the area, to be captured and returned to the absorber process.

Project Alternatives

Alternatives considered were as follows: 1) Do nothing and bear the expense and reliability issues caused by the build-up of ammonia 2) Install low cost blinds in the trays and use small electric pumps. This is our current process and is unreliable at best and has limited our ability to wash down and clean the area 3) Install multiple small sumps and pumps. The costs of this option were significantly higher than rerouting trenching to once common system

Technical Aspects

The station has seen an increase in issues related to absorber slurry and water reaching the process ponds and affecting our wastewater management system. This project would install and reroute drains in the area to one large common sump with dual redundant pumps to handle both process and wash down water. This project is not an outage required task.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76117017	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76117017	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	9,800	9,800	9,800	101	101	15,000	22,000	66,603
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	998	0	0	0	0	0	0	0	0	0	0	0	998
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	105	105	105	1	1	161	235	713
	926-A and G Loads	0	0	0	0	0	0	232	232	232	2	2	356	521	1,578
	928-AFUDC Debt Reg	0	1	3	3	3	3	9	23	36	43	43	54	79	298
	929-AFUDC - Equity Regular	0	2	3	3	3	3	12	30	47	56	57	70	103	391
	937-San Juan AR - Other	0	0	0	0	0	0	-5,069	-5,069	-5,069	-52	-52	-7,758	-11,378	-34,447
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	1,001	6	6	6	6	5,090	5,121	5,152	151	152	7,882	11,561	36,134
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	1,001	6	6	6	6	5,090	5,121	5,152	151	152	7,882	11,561	36,134

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76117017	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	66,603	80	19,167	12,667	46,775	31,833	15,667	16,000	0	0	0	0	0	208,791	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	998	0	0	0	0	0	0	0	0	0	0	0	0	998	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	713	1	205	136	500	341	168	171	0	0	0	0	0	2,234	
926-A and G Loads	1,578	2	454	300	1,109	754	371	379	0	0	0	0	0	4,948	
928-AFUDC Debt Reg	298	94	108	130	171	225	258	281	0	0	0	0	0	1,564	
929-AFUDC - Equity Regular	391	85	97	117	154	203	232	253	0	0	0	0	0	1,532	
937-San Juan AR - Other	-34,447	-41	-9,913	-6,551	-24,192	-16,464	-8,103	-8,275	0	0	0	0	0	-107,986	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	36,134	221	10,118	6,798	24,517	16,891	8,593	8,809	0	0	0	0	0	112,080	
825-Clearings	0	0	0	0	0	0	0	-112,080	0	0	0	0	0	-112,080	
Clr Sum	0	0	0	0	0	0	0	-112,080	0	0	0	0	0	-112,080	
Proj Net	36,134	221	10,118	6,798	24,517	16,891	8,593	-103,272	0	0	0	0	0	0	

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Project No: 76117117 Unit 1 Boiler O2 Grid - 2018

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

<u>Construction Start Date</u>	3/1/2017	<u>Estimated Completion Date</u>	8/31/2018
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

Carbon monoxide (CO) monitors are often used in parallel with oxygen (O2) monitors to verify adequate air levels in the furnace. A rise in the CO level indicates incomplete combustion in the furnace, possibly due to insufficient air. Unit 1 has only 4 O2 sampling points per duct, which has led O2 indications to be inconsistent and inaccurate. With a 16-point grid covering the entire duct, operators would have the ability to monitor individual points of poor combustion and high oxygen. This would allow tuners and operators to make adjustments to improve overall combustion and lower unit emissions.

Project Alternatives

Doing nothing would greatly affect combustion tuning and put at risk the ability to maintain performance requirements. The only alternatives available are the choices between what type and how many probes to install. This budget will install at minimum 8 additional probes on the unit.

Technical Aspects

Project will consist of installing additional probes, wiring the probes to spare I/O, and configuration of the probes within the digital control system. This project is an outage required task to be executed in 2018 with engineering and procurement in 2017.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76117117	Year	2016		Jul	Aug	Sep	Oct	Nov	Dec	Total
Cost_Type		Bal 6/30/16									
110-Straight Time-General		0			0	0	0	0	0	0	0
120-Overtime-General		0			0	0	0	0	0	0	0
350-Material Issues-Major		0			0	0	0	0	0	0	0
370-Outside Services		0			0	0	0	0	0	0	0
374-Outside Svcs Legal		0			0	0	0	0	0	0	0
377-Outside Services-Temp Labor		0			0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0			0	0	0	0	0	0	0
530-Employee Expense		0			0	0	0	0	0	0	0
610-Expenses - General		0			0	0	0	0	0	0	0
805-Land and Land Rights		0			0	0	0	0	0	0	0
807-Non Refundable Contribution		0			0	0	0	0	0	0	0
829-Construction Adjustment		0			0	0	0	0	0	0	0
426-Capitalized Interest		0			0	0	0	0	0	0	0
908-Luna AR - Labor		0			0	0	0	0	0	0	0
909-Luna AR - Other		0			0	0	0	0	0	0	0
913-Payroll Taxes Load		0			0	0	0	0	0	0	0
914-Pension and Benefits Load		0			0	0	0	0	0	0	0
915-Injuries and Damages Load		0			0	0	0	0	0	0	0
918-San Juan AR-Labor		0			0	0	0	0	0	0	0
921-Stores / Purchasing Load		0			0	0	0	0	0	0	0
922-Minor Material Load		0			0	0	0	0	0	0	0
925-E and S Loads		0			0	0	0	0	0	0	0
926-A and G Loads		0			0	0	0	0	0	0	0
928-AFUDC Debt Reg		0			0	0	0	0	0	0	0
929-AFUDC - Equity Regular		0			0	0	0	0	0	0	0
937-San Juan AR - Other		0			0	0	0	0	0	0	0
961-Luna A&G PNMR D&V		0			0	0	0	0	0	0	0
Cost Sum		0			0	0	0	0	0	0	0
825-Clearings		0			0	0	0	0	0	0	0
Clr Sum		0			0	0	0	0	0	0	0
Proj Net		0			0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76117117	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	23,500	81	23,500	163	49,151	48,000	48,000	2,184	194,579	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	251	1	251	2	526	514	514	23	2,082	
926-A and G Loads	0	0	0	0	0	557	2	557	4	1,165	1,138	1,138	52	4,612	
928-AFUDC Debt Reg	0	0	0	0	0	16	32	48	64	98	164	230	265	916	
929-AFUDC - Equity Regular	0	0	0	0	0	21	42	63	84	128	215	301	347	1,201	
937-San Juan AR - Other	0	0	0	0	0	-12,154	-42	-12,154	-84	-25,421	-24,826	-24,826	-1,130	-100,636	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	0	12,191	116	12,265	233	25,647	25,204	25,356	1,742	102,753	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proj Net	0	0	0	0	0	12,191	116	12,265	233	25,647	25,204	25,356	1,742	102,753	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76117117	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	194,579	100,000	100,000	100,000	100,000	99,000	99,000	99,000	98,000	0	0	0	0	989,579	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	2,082	1,070	1,070	1,070	1,070	1,059	1,059	1,059	1,049	0	0	0	0	10,588	
926-A and G Loads	4,612	2,370	2,370	2,370	2,370	2,346	2,346	2,346	2,323	0	0	0	0	23,453	
928-AFUDC Debt Reg	916	336	473	610	748	886	1,024	1,163	1,302	0	0	0	0	7,458	
929-AFUDC - Equity Regular	1,201	303	426	550	674	799	923	1,049	1,174	0	0	0	0	7,099	
937-San Juan AR - Other	-100,636	-51,720	-51,720	-51,720	-51,720	-51,203	-51,203	-51,203	-50,686	0	0	0	0	-511,810	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	102,753	52,359	52,619	52,880	53,143	52,888	53,151	53,414	53,161	0	0	0	0	526,367	
825-Clearings	0	0	0	0	0	0	0	0	-526,367	0	0	0	0	-526,367	
Clr Sum	0	0	0	0	0	0	0	0	-526,367	0	0	0	0	-526,367	
Proj Net	102,753	52,359	52,619	52,880	53,143	52,888	53,151	53,414	-473,206	0	0	0	0	0	

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Project No: 76117530 Unit 1 Emergency Diesel Generator - 2019

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

<u>Construction Start Date</u>	3/1/2018	<u>Estimated Completion Date</u>	12/31/2018
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

The purpose of an emergency diesel generator is to provide an alternate power supply for critical systems if power is lost to the unit. Batteries are also used for this process, but battery life is limited. Currently the Unit 1 generator is old and as a result it is very difficult to find parts. Though the performance combustion process on the current generator is within limits, it is beginning to reach undesired ranges. Per the recommendation from Engineering, this project will involve purchasing and installing a new diesel generator for Unit 1.

Project Alternatives

The first option is to replace the generator with a new one. The second option is to move the more modern Unit 3 generator to Unit 1. The third option is to keep Unit 3 in place and run cabling to Unit 1. Based on the performance and the criticality of the generator the do nothing option was not considered.

Technical Aspects

Project will involve identifying a new generator that meets the requirements, working with the environmental team to review and obtain a permit, purchasing the new generator, removing the existing generator, and installing the a new generator. Once installed, additional work will be required to test and commission the generator. This project does not require an outage, but will be performed during a scheduled maintenance outage event.

Project Estimate Approach

Estimate based currently on engineering estimate.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76117530	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76117530	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76117530	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	0	2,698	20,569	20,569	83,896	91,045	2,023	220,800	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	29	220	220	898	974	22	2,363	
926-A and G Loads	0	0	0	0	0	0	0	64	487	487	1,988	2,158	48	5,233	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	2	18	45	116	235	299	715	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	2	16	41	105	212	269	644	
937-San Juan AR - Other	0	0	0	0	0	0	0	-1,395	-10,638	-10,638	-43,391	-47,088	-1,046	-114,198	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	0	0	0	1,399	10,672	10,725	43,612	47,535	1,615	115,557	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-115,557	-115,557	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-115,557	-115,557	
Proj Net	0	0	0	0	0	0	0	1,399	10,672	10,725	43,612	47,535	-113,942	0	

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Project No: 76121912 SJ U1 SNCR \$295,483 \$0 \$295,483

Company: 003-Bulk Power
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2017

Estimated Completion Date 5/31/2017

List Interim In-Service Dates

0

Project Need Justification

The San Juan Selective Non-Catalytic Reduction (SNCR) Project encompasses both the installation of SNCR on San Juan Units 1 and 4 as required by the Revised State Implementation Plan (SIP) as well as the conversion of these units to a balanced draft configuration. They are denoted on the capital list as projects "SJ U1 SNCR", "SJ U4 SNCR", and "SJGS SNCR costs PNM Share". This project is for the Unit 1 portion. The age and wear and tear of these units have caused the flue gas pressure boundary to deteriorate. This deterioration allows ash-laden flue gases and coal particles to escape from the boiler, flues, ducts, and other air or flue gas paths. Ash and coal that accumulates outside of the boiler pressure boundary pose various maintenance, health, and safety issues. Aware of this issue, regulators have identified the potential compliance issues related to emissions under the National Ambient Air Quality Standards (NAAQS). For this reason, the New Mexico Environmental Department (NMED), as part of an amendment to San Juan's New Source Review (NSR) permit, required that San Juan convert to a balanced draft configuration. Balanced draft will help ensure compliance with the NAAQS and result in a significant reduction in fugitive emissions which provides a myriad of operational benefits, including a cleaner workplace. This project will substantially reduce the escape of ash, coal particles, and ammonia.

Project Alternatives

This project is required by state and federal regulations/agencies and therefore has no alternative for compliance. Effective September 21, 2011 the United States Environmental Protection Agency (EPA) adopted the Federal Implementation Plan (FIP) establishing selective catalytic control (SCR) technology as Best Available Retrofit Technology (BART) for San Juan Generating Station (SJGS) to meet the requirements of EPA's Regional Haze Rule under the Clean Air Act (CAA). Among other things, the FIP established a limit on nitrogen oxide (NOx) emissions of no more than 0.05 lb./MMBtu at each unit of SJGS. The EPA determined that the NOx emissions limits can only be achieved by installing SCR. EPA then required that SJGS to meet this limit by September 21, 2016. 76 Fed. Reg. 52388-52389 (Aug. 22, 2011). New Mexico submitted a revised RSIP identifying a less expensive technology, Selective Non-Catalytic Reduction ("SNCR"), as BART for NOx emissions. 76 Fed. Reg. at 52394. Among other things, the RSIP sets out a process and timeline whereby BART compliance would be achieved by the retirement of SJGS Units 2 and 3 by December 31, 2017, with SNCR to be installed on Units 1 and 4 by January 31, 2016. The RSIP was submitted to EPA on October 7, 2013. The EPA determined that the RSIP was complete on December 17, 2013, and granted final approval on October 9, 2014. The RSIP for SJGS addresses the Regional Haze rule and provides significant additional environmental benefits at a lower cost than the FIP including reductions associated with: • Nitrogen oxides, sulfur dioxide, particulate matter, carbon dioxide and mercury- approximately 50% • Water Consumption- about 53% • Coal Ash Generation- about 48% • Truck Traffic (hauling coal ash back to the mine) and Raw Material Deliveries and • Visible Plumes (reduces stacks from four to two) In addition, the RSIP plays a significant role in the state of New Mexico's compliance with the recently finalized Clean Power Plan under the Clean Air Act Section 111(d). In a

September 2011 Title V permit application, after consultation with the NMED concerning San Juan's fugitive emissions, PNM made the commitment to convert to balanced draft when the boilers were upgraded to meet the Regional Haze Federal or State Implementation Plan. In a subsequent NSR permit modification issued by NMED in August 2012 that allowed the installation of either SCR under the federal plan or SNCR under that state plan, NMED required San Juan to install balanced draft.

Technical Aspects

SNCR is a post-combustion control technology for NOx emissions. In very general terms, SNCR uses an amine-based reagent (urea in San Juan's case) which is injected into the boiler and reacts with NOx to reduce it to molecular nitrogen (N2) and water. In order to inject the reagent, the boiler walls must be penetrated and lances must be installed for the delivery of the reagent into the heated boiler. San Juan's NSR permit required that San Juan convert to a balanced draft configuration. Balanced draft is achieved by installing induced draft ("I.D.") fans to balance the pressure in the boilers, flues and ducts. This greatly lessens the escape of ash, coal particles and ammonia caused by the positive pressures created by the F.D. fans. Due to changes in operational pressures, other modifications, such as boiler stiffening, are also often necessary to convert to a balanced draft configuration. As stated above, balanced draft will help ensure demonstrated compliance with the NAAQS and result in a significant reduction in fugitive emissions which provides myriad operational benefits, including a cleaner workplace.

Project Estimate Approach

Original estimates were provided by Sargent & Lundy LLC, a leading engineering firm in the utility industry which has executed numerous projects of this nature. All equipment for the project is being provided under firm price contracts which have been fully executed. A proposal for construction services to install all equipment has been fully negotiated and is in the process of being executed by PNM and its contracting partner, Graycor Industrial Constructors. The value of the contract is \$27.3 million. Equipment contracts have a combined value of roughly \$25 million. The balance of the cost estimate includes engineering, construction management, project management, insurance, and general and administrative loads.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76121912	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	198,226			0	0	0	0	0	0	198,226		
120-Overtime-General	37,677			0	0	0	0	0	0	37,677		
350-Material Issues-Major	1,616,945			0	0	0	0	0	0	1,616,945		
370-Outside Services	53,651,270			77,000	163,000	11,500	0	0	0	53,902,770		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	528,524			0	0	0	0	0	0	528,524		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	72,199			0	0	0	0	0	0	72,199		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	17,869			0	0	0	0	0	0	17,869		
914-Pension and Benefits Load	67,045			0	0	0	0	0	0	67,045		
915-Injuries and Damages Load	9,272			0	0	0	0	0	0	9,272		
918-San Juan AR-Labor	-179,813			0	0	0	0	0	0	-179,813		
921-Stores / Purchasing Load	383,050			0	0	0	0	0	0	383,050		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	572,464			770	1,630	115	0	0	0	574,979		
928-AFUDC Debt Reg	422,666			312	93	7	0	0	0	423,077		
929-AFUDC - Equity Regular	593,182			338	100	7	0	0	0	593,627		
937-San Juan AR - Other	-28,968,291			-38,885	-82,315	-5,808	0	0	0	-29,095,299		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	29,022,286			39,534	82,508	5,821	0	0	0	29,150,149		
825-Clearings	-30,045,059			-158,426	-82,508	-5,821	0	0	0	-30,291,814		
Clr Sum	-30,045,059			-158,426	-82,508	-5,821	0	0	0	-30,291,814		
Proj Net	-1,022,773			-118,892	0	0	0	0	0	-1,141,665		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76121912	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	198,226	0	0	0	0	0	0	0	0	0	0	0	0	198,226
	120-Overtime-General	37,677	0	0	0	0	0	0	0	0	0	0	0	0	37,677
	350-Material Issues-Major	1,616,945	0	0	0	0	0	0	0	0	0	0	0	0	1,616,945
	370-Outside Services	53,902,770	0	0	0	48,100	48,100	0	0	0	0	0	0	0	53,998,970
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	528,524	0	0	0	0	0	0	0	0	0	0	0	0	528,524
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	72,199	0	0	0	0	0	0	0	0	0	0	0	0	72,199
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	17,869	0	0	0	0	0	0	0	0	0	0	0	0	17,869
	914-Pension and Benefits Load	67,045	0	0	0	0	0	0	0	0	0	0	0	0	67,045
	915-Injuries and Damages Load	9,272	0	0	0	0	0	0	0	0	0	0	0	0	9,272
	918-San Juan AR-Labor	-179,813	0	0	0	0	0	0	0	0	0	0	0	0	-179,813
	921-Stores / Purchasing Load	383,050	0	0	0	0	0	0	0	0	0	0	0	0	383,050
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	574,979	0	0	0	481	481	0	0	0	0	0	0	0	575,941
	928-AFUDC Debt Reg	423,077	0	0	0	32	32	0	0	0	0	0	0	0	423,141
	929-AFUDC - Equity Regular	593,627	0	0	0	42	42	0	0	0	0	0	0	0	593,710
	937-San Juan AR - Other	-29,095,299	0	0	0	-24,291	-24,291	0	0	0	0	0	0	0	-29,143,880
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	29,150,149	0	0	0	24,364	24,364	0	0	0	0	0	0	0	29,198,877
	825-Clearings	-30,291,814	0	0	0	-24,364	-24,364	0	0	0	0	0	0	0	-30,340,542
	Clr Sum	-30,291,814	0	0	0	-24,364	-24,364	0	0	0	0	0	0	0	-30,340,542
Proj Net		-1,141,665	0	0	0	0	0	0	0	0	0	0	0	0	-1,141,665

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76121912	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	198,226	0	0	0	0	0	0	0	0	0	0	0	0	198,226
	120-Overtime-General	37,677	0	0	0	0	0	0	0	0	0	0	0	0	37,677
	350-Material Issues-Major	1,616,945	0	0	0	0	0	0	0	0	0	0	0	0	1,616,945
	370-Outside Services	53,998,970	0	0	0	0	0	0	0	0	0	0	0	0	53,998,970
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	528,524	0	0	0	0	0	0	0	0	0	0	0	0	528,524
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	72,199	0	0	0	0	0	0	0	0	0	0	0	0	72,199
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	17,869	0	0	0	0	0	0	0	0	0	0	0	0	17,869
	914-Pension and Benefits Load	67,045	0	0	0	0	0	0	0	0	0	0	0	0	67,045
	915-Injuries and Damages Load	9,272	0	0	0	0	0	0	0	0	0	0	0	0	9,272
	918-San Juan AR-Labor	-179,813	0	0	0	0	0	0	0	0	0	0	0	0	-179,813
	921-Stores / Purchasing Load	383,050	0	0	0	0	0	0	0	0	0	0	0	0	383,050
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	575,941	0	0	0	0	0	0	0	0	0	0	0	0	575,941
	928-AFUDC Debt Reg	423,141	0	0	0	0	0	0	0	0	0	0	0	0	423,141
	929-AFUDC - Equity Regular	593,710	0	0	0	0	0	0	0	0	0	0	0	0	593,710
	937-San Juan AR - Other	-29,143,880	0	0	0	0	0	0	0	0	0	0	0	0	-29,143,880
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	29,198,877	0	0	0	0	0	0	0	0	0	0	0	0	29,198,877
	825-Clearings	-30,340,542	0	0	0	0	0	0	0	0	0	0	0	0	-30,340,542
	Clr Sum	-30,340,542	0	0	0	0	0	0	0	0	0	0	0	0	-30,340,542
	Proj Net	-1,141,665	0	0	0	0	0	0	0	0	0	0	0	0	-1,141,665

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Project No: 76416068 Unit 4 Mercury Sorbent Traps

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 2/1/2018 Estimated Completion Date 3/31/2018

List Interim In-Service Dates

0

Project Need Justification

Project scope includes replacing the mercury sorbent traps with a redundant system to reduce monitor downtime, reduce the occurrence of missing data, and improve reliability for emissions reporting.

Project Alternatives

There are no other alternatives to this project. Not completing this project would increase the risk of data lost during unit start-up conditions and the potential to exceed Environmental Protection Agency (EPA) maximum of 5% monitor downtime per quarter.

Technical Aspects

The mercury sorbent traps are mounted on the stack and used to monitor the amount of mercury leaving the plant exit stacks. Data is monitored on a periodic basis and trended over time for environmental reporting.

Project Estimate Approach

Based on vendor quotes and previous installation of traps.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416068	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416068	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416068	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	63,000	62,000	0	0	0	0	0	0	0	0	0	125,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	674	663	0	0	0	0	0	0	0	0	0	1,338	
926-A and G Loads	0	0	1,493	1,469	0	0	0	0	0	0	0	0	0	2,963	
928-AFUDC Debt Reg	0	0	66	197	0	0	0	0	0	0	0	0	0	262	
929-AFUDC - Equity Regular	0	0	59	177	0	0	0	0	0	0	0	0	0	237	
937-San Juan AR - Other	0	0	-14,795	-14,560	0	0	0	0	0	0	0	0	0	-29,355	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	50,497	49,947	0	0	0	0	0	0	0	0	0	100,444	
825-Clearings	0	0	0	-100,444	0	0	0	0	0	0	0	0	0	-100,444	
Clr Sum	0	0	0	-100,444	0	0	0	0	0	0	0	0	0	-100,444	
Proj Net	0	0	50,497	-50,497	0	0	0	0	0	0	0	0	0	0	

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Project No: 76416115 Unit 4 Flyash System Upgrade

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 10/3/2015 Estimated Completion Date 9/30/2016

List Interim In-Service Dates

N/A

Project Need Justification

Flyash is a coal combustion residual. The coal burned at San Juan produces 20% to 30% of ash, by weight, for each ton of coal burned. Approximately 20% of the ash in a pulverized coal boiler falls to the bottom of the furnace. This product is called "bottom ash." Roughly 80% of the ash is small, light particles which are carried in the exhaust gases and collected in an electrostatic precipitator and/or fabric filter. These small, light ash particles are called "flyash." San Juan Unit 4 has a de-energized electrostatic precipitator and a fabric filter. Both devices have flyash removal systems that evacuate the ash collection hoppers and transfer the ash to a silo from which it is later permanently disposed. Maintenance of the Unit 4 flyash handling systems has been managed under the expectation of receiving approval to bypass the electrostatic precipitator in 2015. Since the bypass project was not approved, major maintenance to keep the electrostatic precipitator flyash handling system in service is required. This major maintenance meets the criteria for capitalization. The scope of work includes both in-kind replacement of certain components and installation of additional equipment. Approximately 2500 linear feet of 10" diameter basalt lined pipe is to be replaced with in-kind materials. The existing pipe has reached the point where repetitive failures are occurring. The new pipe, with proper maintenance should have a useful life of 12 to 15 years.

Project Alternatives

Another alternative to this project is to bypass the electrostatic precipitator (ESP) and remove the flyash handling equipment from service. This was not the option chosen by the ownership group. Without the ESP bypass, these major maintenance items are required to sustain unit reliability and environmental compliance and to reduce short term maintenance expense. There are no other technical alternatives.

Technical Aspects

The scope of work include in-kind replacement of the flyash transport line and the ash bin vent filter. The transport line is approximately 2500 feet of 10" basalt lined pipe. The scope of work includes the following items and work activities: 1. Approximately 2500 linear feet of 10" diameter basalt lined pipe, fittings and appurtenances. 2. Miscellaneous pipe supports and pipe hangers. 3. Pipe gaskets, flanges and thru-bolts. 4. Ten (10) each 6" airlock feeder manual isolation gate valves. 5. One (1) bin vent filter. 6. Ten (10) each airlock feeder vent hoses. 7. Installation of all of the above components. 8. Demolition of existing airlock feeder vent hoses. 9. Demolition of flyash transport piping to be retired Isolation valves will be added to the airlock chambers at each of 10 hoppers on the fabric filter ash removal system. Under the current configuration, the fabric filter ash removal system must be removed from service to perform routine maintenance.

Adding the airlock isolation valves will permit on-line maintenance and therefore increase system reliability. The reliability of the ash removal system has a direct impact on unit availability. These valves were likely considered during the construction of the fabric filter but the decision was made to leave them out of the project. Experience over the last seven years has proved the need for the valves. Airlock vent lines will be redesigned and routed to a higher connection point at each of 10 hoppers on the fabric filter. This modification will reduce pluggage of the lines, improving performance and increasing reliability. The same modification was implemented on San Juan Unit 1 fabric filter as part of the balanced draft conversion/electrostatic precipitator bypass project. The obsolete and non-functioning ash silo bin vent filter will be replaced with a new technology filter. The bin vent filter is required for proper operation of the ash transport system. It is also necessary to prohibit fugitive dust from escaping.

Project Estimate Approach

The cost estimate has been developed from supplier quotations for material and contractor estimates for installation. All items are not under contract at this time. Future procurement activities will lead to firm price contracts for each individual scope of work. As with all project, vendor quotes and contractor estimates are used as the basis of the cost estimate. For this specific project, basalt lined pipe was quoted by CDP, a leading supplier of basalt products to the utility industry. The bin vent filter was quoted by United Conveyor Corporation. Piping installation was estimated by Day & Zimmerman, the resident maintenance contractor at San Juan. Data from an identical recent installation of airlock isolation valves and airlock hopper vent lines on San Juan Unit 1 was used to estimate the airlock isolation valves and hopper vent lines for Unit 4. In addition to the information collected from quotations, allowances are made for engineering, project management, general and administrative loads, AFUDC and project contingency. For this particular project the cost breakdown, by percentage is 35% materials, 55% construction labor, 14% engineering and project management, 4% general and administrative loads and 2% AFUDC.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416115	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	1,066			0	0	0	0	0	0	1,066		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	35,545			0	0	0	0	0	0	35,545		
370-Outside Services	822,104			115,000	136,000	94,000	0	0	0	1,167,104		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	82			0	0	0	0	0	0	82		
914-Pension and Benefits Load	384			0	0	0	0	0	0	384		
915-Injuries and Damages Load	46			0	0	0	0	0	0	46		
918-San Juan AR-Labor	-1,069			0	0	0	0	0	0	-1,069		
921-Stores / Purchasing Load	7,224			0	0	0	0	0	0	7,224		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	24,038			1,231	1,455	1,006	0	0	0	27,730		
926-A and G Loads	20,905			2,726	3,223	2,228	0	0	0	29,081		
928-AFUDC Debt Reg	6,519			0	0	0	0	0	0	6,519		
929-AFUDC - Equity Regular	4,475			0	0	0	0	0	0	4,475		
937-San Juan AR - Other	-574,199			-42,251	-49,966	-34,535	0	0	0	-700,951		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	347,121			76,705	90,712	62,698	0	0	0	577,236		
825-Clearings	0			0	0	-600,583	0	0	0	-600,583		
Clr Sum	0			0	0	-600,583	0	0	0	-600,583		
Proj Net	347,121			76,705	90,712	-537,885	0	0	0	-23,347		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,066	0	0	0	0	0	0	0	0	0	0	0	0	1,066
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	35,545	0	0	0	0	0	0	0	0	0	0	0	0	35,545
	370-Outside Services	1,167,104	0	0	0	0	0	0	0	0	0	0	0	0	1,167,104
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	82	0	0	0	0	0	0	0	0	0	0	0	0	82
	914-Pension and Benefits Load	384	0	0	0	0	0	0	0	0	0	0	0	0	384
	915-Injuries and Damages Load	46	0	0	0	0	0	0	0	0	0	0	0	0	46
	918-San Juan AR-Labor	-1,069	0	0	0	0	0	0	0	0	0	0	0	0	-1,069
	921-Stores / Purchasing Load	7,224	0	0	0	0	0	0	0	0	0	0	0	0	7,224
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	27,730	0	0	0	0	0	0	0	0	0	0	0	0	27,730
	926-A and G Loads	29,081	0	0	0	0	0	0	0	0	0	0	0	0	29,081
	928-AFUDC Debt Reg	6,519	0	0	0	0	0	0	0	0	0	0	0	0	6,519
	929-AFUDC - Equity Regular	4,475	0	0	0	0	0	0	0	0	0	0	0	0	4,475
	937-San Juan AR - Other	-700,951	0	0	0	0	0	0	0	0	0	0	0	0	-700,951
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	577,236	0	0	0	0	0	0	0	0	0	0	0	0	577,236
	825-Clearings	-600,583	0	0	0	0	0	0	0	0	0	0	0	0	-600,583
	Clr Sum	-600,583	0	0	0	0	0	0	0	0	0	0	0	0	-600,583
	Proj Net	-23,347	0	0	0	0	0	0	0	0	0	0	0	0	-23,347

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416115	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,066	0	0	0	0	0	0	0	0	0	0	0	0	1,066
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	35,545	0	0	0	0	0	0	0	0	0	0	0	0	35,545
	370-Outside Services	1,167,104	0	0	0	0	0	0	0	0	0	0	0	0	1,167,104
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391~Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	82	0	0	0	0	0	0	0	0	0	0	0	0	82
	914-Pension and Benefits Load	384	0	0	0	0	0	0	0	0	0	0	0	0	384
915-Injuries and Damages Load		46	0	0	0	0	0	0	0	0	0	0	0	0	46
	918-San Juan AR-Labor	-1,069	0	0	0	0	0	0	0	0	0	0	0	0	-1,069
921-Stores / Purchasing Load		7,224	0	0	0	0	0	0	0	0	0	0	0	0	7,224
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	27,730	0	0	0	0	0	0	0	0	0	0	0	0	27,730
	926-A and G Loads	29,081	0	0	0	0	0	0	0	0	0	0	0	0	29,081
	928-AFUDC Debt Reg	6,519	0	0	0	0	0	0	0	0	0	0	0	0	6,519
929-AFUDC - Equity Regular		4,475	0	0	0	0	0	0	0	0	0	0	0	0	4,475
	937-San Juan AR - Other	-700,951	0	0	0	0	0	0	0	0	0	0	0	0	-700,951
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	577,236	0	0	0	0	0	0	0	0	0	0	0	0	577,236
	825-Clearings	-600,583	0	0	0	0	0	0	0	0	0	0	0	0	-600,583
	Clr Sum	-600,583	0	0	0	0	0	0	0	0	0	0	0	0	-600,583
Proj Net		-23,347	0	0	0	0	0	0	0	0	0	0	0	0	-23,347

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Project No: 76416318 Unit 4 Absorber Demister Pads - 2018

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 5/31/2018

List Interim In-Service Dates

N/A

Project Need Justification

This project is meant to replace one layer of demister pads on all three absorber cells of Unit 4. Demister pads are used to remove particulate and water from the system prior to the flue gas entering the stack. If they were to fail, particulate would bypass the pads and reach the stack and lead to an emissions non-compliance event. Based on their lifecycle one layer of demister pads should be replaced every scheduled outage to maintain particulate and SO2 compliance.

Project Alternatives

Alternatives to replacing the pads include regular cleanings performed during any maintenance or scheduled outages where inspection shows the need. However, with these particular pads, this is not an option. At this point, degradation has begun to affect performance to now require replacement.

Technical Aspects

Demister pads separate slurry and liquid from the flue gas at the top of the absorber cells prior to reaching the stack and atmosphere. As degradation happens over time the pads are replaced. This project would remove the supports holding the pads in place, remove and dispose old pads, install new pads, and apply hold-down supports. This project is an outage required task with installation planned during the scheduled outage of 2018 and materials ordered ahead of time in 2017.

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416318	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416318	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	10,250	10,250	10,250	10,250	10,250	0	0	0	0	0	51,250
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non	Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	110	110	110	110	110	0	0	0	0	0	548
	926-A and G Loads	0	0	0	243	243	243	243	243	0	0	0	0	0	1,215
	928-AFUDC Debt Reg	0	0	0	9	27	45	63	81	90	91	92	92	93	682
	929-AFUDC - Equity Regular	0	0	0	12	35	59	82	106	119	119	120	121	122	895
	937-San Juan AR - Other	0	0	0	-3,766	-3,766	-3,766	-3,766	-3,766	0	0	0	0	0	-18,829
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	6,857	6,899	6,940	6,982	7,024	209	210	212	213	214	35,761
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	6,857	6,899	6,940	6,982	7,024	209	210	212	213	214	35,761

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416318	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	51,250	96,500	96,500	77,000	77,000	28,000	0	0	0	0	0	0	0	426,250
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	548	1,033	1,033	824	824	300	0	0	0	0	0	0	0	4,561
	926-A and G Loads	1,215	2,287	2,287	1,825	1,825	664	0	0	0	0	0	0	0	10,102
	928-AFUDC Debt Reg	682	194	397	580	743	857	0	0	0	0	0	0	0	3,453
	929-AFUDC - Equity Regular	895	175	358	523	670	772	0	0	0	0	0	0	0	3,392
	937-San Juan AR - Other	-18,829	-22,662	-22,662	-18,083	-18,083	-6,576	0	0	0	0	0	0	0	-106,894
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	35,761	77,527	77,912	62,668	62,980	24,017	0	0	0	0	0	0	0	340,864
	825-Clearings	0	0	0	0	0	-340,864	0	0	0	0	0	0	0	-340,864
	Clr Sum	0	0	0	0	0	-340,864	0	0	0	0	0	0	0	-340,864
Proj Net		35,761	77,527	77,912	62,668	62,980	-316,847	0	0	0	0	0	0	0	0

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Project No: 76416415 Unit 4 Hydrogen Dryer - 2018

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

<u>Construction Start Date</u>	3/1/2017	<u>Estimated Completion Date</u>	6/30/2018
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

The Hydrogen Dryer is used to remove moisture from the hydrogen used to cool the generator. If moisture is present in the hydrogen, the generator's winding and coil insulation can be damaged. The existing dryer on Unit 4 was taken out of service several years ago because of failure. This project will install a new dryer and replace piping connecting it to the generator.

Project Alternatives

The only alternative would be to repair the existing dryer and associated equipment. Extensive inspection has shown that based on its condition, this is not physically and/or economically possible. In addition, doing nothing would continue to expose the generator to potential corrosion and damage from wet gasses.

Technical Aspects

Hydrogen dryers are a part of the control package for generators. They serve the purpose of taking moisture the hydrogen collects from leaking coils in the hydrogen cooler.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416415	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416415	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	9,820	9,820	0	4,910	4,910	29,460
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	105	105	0	53	53	315
	926-A and G Loads	0	0	0	0	0	0	0	0	233	233	0	116	116	698
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	9	26	34	39	48	155
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	11	34	45	51	62	203
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	-3,608	-3,608	0	-1,804	-1,804	-10,824
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	6,570	6,609	79	3,365	3,385	20,008
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	6,570	6,609	79	3,365	3,385	20,008

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416415	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	29,460	115,500	19,500	81,000	14,000	5,000	250	0	0	0	0	0	0	264,710
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	315	1,236	209	867	150	54	3	0	0	0	0	0	0	2,832
	926-A and G Loads	698	2,737	462	1,920	332	119	6	0	0	0	0	0	0	6,274
	928-AFUDC Debt Reg	155	173	315	421	522	545	553	0	0	0	0	0	0	2,684
	929-AFUDC - Equity Regular	203	156	284	380	471	491	499	0	0	0	0	0	0	2,483
	937-San Juan AR - Other	-10,824	-27,124	-4,579	-19,022	-3,288	-1,174	-59	0	0	0	0	0	0	-66,070
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	20,008	92,678	16,190	65,565	12,187	5,034	1,251	0	0	0	0	0	0	212,913
	825-Clearings	0	0	0	0	0	0	-212,913	0	0	0	0	0	0	-212,913
	Clr Sum	0	0	0	0	0	0	-212,913	0	0	0	0	0	0	-212,913
	Proj Net	20,008	92,678	16,190	65,565	12,187	5,034	-211,662	0	0	0	0	0	0	0

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Project No: 76416416 Unit 4 Raw Water Line - 2016

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 3/1/2016 Estimated Completion Date 10/31/2016

List Interim In-Service Dates

0

Project Need Justification

The raw water line from the Unit 4 (U4) raw water meter house to the U4 provides raw water to the cooling tower as needed. This line is the original line installed for the unit and has started to develop leaks. This project will provide funds to fix these leaks and also for a temporary fix tie from the raw water line into the cooling tower fire protection line while the main line is being repaired. This project was revised to increase the funding from \$274,712 to \$469,875 because the shutoff valve for the line failed and is in need of detailed repair as well.

Project Alternatives

As an alternative, PNM could take the unit out of service to make the repairs but this would take at least 10 days and would still not offer a workaround for future leaks.

Technical Aspects

Repairs will include various patch-works on parts of line identified from analysis to have leaks. Due to the age of the raw water line on U4, this line will need to be replaced in future years. However, as a lower cost option, repairs to be made now will reduce the amount of line needing replacement in the future.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416416	Year	2016	Jul	Aug	Sep	Oct	Nov	Dec	Total
Cost_Type	Bal 6/30/16									
110-Straight Time-General	0			0	0	0	0	0	0	0
120-Overtime-General	0			0	0	0	0	0	0	0
350-Material Issues-Major	0			0	0	0	0	0	0	0
370-Outside Services	288,604			143,750	30,500	0	0	0	0	462,854
374-Outside Svcs Legal	0			0	0	0	0	0	0	0
377-Outside Services-Temp Labor	7,041			0	0	0	0	0	0	7,041
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0
530-Employee Expense	22			0	0	0	0	0	0	22
610-Expenses - General	0			0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0
807-Non Refundable Contribution	0			0	0	0	0	0	0	0
829-Construction Adjustment	0			0	0	0	-1,119	0	0	-1,119
426-Capitalized Interest	0			0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0
909-Luna AR - Other	0			0	0	0	0	0	0	0
913-Payroll Taxes Load	0			0	0	0	0	0	0	0
914-Pension and Benefits Load	0			0	0	0	0	0	0	0
915-Injuries and Damages Load	0			0	0	0	0	0	0	0
918-San Juan AR-Labor	0			0	0	0	0	0	0	0
921-Stores / Purchasing Load	1,833			0	0	0	0	0	0	1,833
922-Minor Material Load	0			0	0	0	0	0	0	0
925-E and S Loads	5,618			1,538	326	0	0	0	0	7,482
926-A and G Loads	7,007			3,407	723	0	0	0	0	11,137
928-AFUDC Debt Reg	246			378	510	536	537	0	0	2,207
929-AFUDC - Equity Regular	108			409	553	580	582	0	0	2,231
937-San Juan AR - Other	-190,860			-52,813	-11,206	0	0	0	0	-254,879
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0
Cost Sum	119,618			96,668	21,407	1,116	0	0	0	238,809
825-Clearings	0			0	0	0	-238,809	0	0	-238,809
Clr Sum	0			0	0	0	-238,809	0	0	-238,809
Proj Net	119,618			96,668	21,407	1,116	-238,809	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416416	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	462,854	0	0	0	0	0	0	0	0	0	0	0	0	462,854
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	7,041	0	0	0	0	0	0	0	0	0	0	0	0	7,041
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	22	0	0	0	0	0	0	0	0	0	0	0	0	22
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-1,119	0	0	0	0	0	0	0	0	0	0	0	0	-1,119
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	1,833	0	0	0	0	0	0	0	0	0	0	0	0	1,833
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	7,482	0	0	0	0	0	0	0	0	0	0	0	0	7,482
	926-A and G Loads	11,137	0	0	0	0	0	0	0	0	0	0	0	0	11,137
	928-AFUDC Debt Reg	2,207	0	0	0	0	0	0	0	0	0	0	0	0	2,207
	929-AFUDC - Equity Regular	2,231	0	0	0	0	0	0	0	0	0	0	0	0	2,231
	937-San Juan AR - Other	-254,879	0	0	0	0	0	0	0	0	0	0	0	0	-254,879
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	238,809	0	0	0	0	0	0	0	0	0	0	0	0	238,809
	825-Clearings	-238,809	0	0	0	0	0	0	0	0	0	0	0	0	-238,809
	Clr Sum	-238,809	0	0	0	0	0	0	0	0	0	0	0	0	-238,809
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416416	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	462,854	0	0	0	0	0	0	0	0	0	0	0	0	462,854
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	7,041	0	0	0	0	0	0	0	0	0	0	0	0	7,041
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	22	0	0	0	0	0	0	0	0	0	0	0	0	22
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-1,119	0	0	0	0	0	0	0	0	0	0	0	0	-1,119
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		1,833	0	0	0	0	0	0	0	0	0	0	0	0	1,833
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	7,482	0	0	0	0	0	0	0	0	0	0	0	0	7,482
	926-A and G Loads	11,137	0	0	0	0	0	0	0	0	0	0	0	0	11,137
	928-AFUDC Debt Reg	2,207	0	0	0	0	0	0	0	0	0	0	0	0	2,207
929-AFUDC - Equity Regular		2,231	0	0	0	0	0	0	0	0	0	0	0	0	2,231
937-San Juan AR - Other		-254,879	0	0	0	0	0	0	0	0	0	0	0	0	-254,879
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	238,809	0	0	0	0	0	0	0	0	0	0	0	0	238,809
	825-Clearings	-238,809	0	0	0	0	0	0	0	0	0	0	0	0	-238,809
	Clr Sum	-238,809	0	0	0	0	0	0	0	0	0	0	0	0	-238,809
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 76416517 Unit 4 Flyash Bin Vent Filter Replacement - 2018

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 6/30/2018

List Interim In-Service Dates

0

Project Need Justification

The existing fly ash bin vent filter system on Unit 4 has many obsolete components and is becoming increasingly difficult to maintain. This has put the Unit at risk for ash leaks and has limited fly ash removal capability. The original equipment manufacturer has recommended replacing the active reverse fan filter design, with a passive design. This increases equipment reliability and significantly reduces maintenance costs. This has already been done on Unit 1 and Unit 2 successfully. This equipment is critical to maintain particulate compliance at the station.

Project Alternatives

Project alternatives consist of maintaining the existing equipment. This would include rebagging the system and structural upgrades to parts damaged from degradation. However, this would not address the difficulty in finding spare parts for the obsolete equipment. The recommended option of replacing the system with a new system increases reliability and reduces risk of failure.

Technical Aspects

The fly ash bin filter system vents the air used to transport the ash to the fly ash bin while capturing particulate so ash is not emitted to the atmosphere. This project would replace the existing fly ash bin filter system with a new design similar to past projects on other units. This project would consist of crane setup, removal of existing instrumentation, removal of old mechanical equipment, installation of new mechanical equipment, installation of instrumentation, and commissioning. This is an outage required task with material purchase scheduled for 2017 and installation during the 2018 scheduled outage.

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416517	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416517	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	4,900	4,900	4,900	4,900	0	0	19,600
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable	Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	52	52	52	52	0	0	210
	926-A and G Loads	0	0	0	0	0	0	0	116	116	116	116	0	0	465
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	4	13	21	30	34	35	138
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	6	17	28	39	45	46	181
	937-San Juan AR - Other	0	0	0	0	0	0	0	-1,800	-1,800	-1,800	-1,800	0	0	-7,201
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	3,278	3,298	3,318	3,338	80	80	13,392
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	3,278	3,298	3,318	3,338	80	80	13,392

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416517	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	19,600	72,500	265,000	95,000	167,000	21,500	7,500	0	0	0	0	0	0	648,100	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	210	776	2,836	1,017	1,787	230	80	0	0	0	0	0	0	6,935	
926-A and G Loads	465	1,718	6,281	2,252	3,958	510	178	0	0	0	0	0	0	15,360	
928-AFUDC Debt Reg	138	111	464	842	1,119	1,322	1,359	0	0	0	0	0	0	5,354	
929-AFUDC - Equity Regular	181	100	418	759	1,009	1,192	1,225	0	0	0	0	0	0	4,882	
937-San Juan AR - Other	-7,201	-17,026	-62,233	-22,310	-39,218	-5,049	-1,761	0	0	0	0	0	0	-154,798	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	13,392	58,179	212,765	77,559	135,655	19,704	8,580	0	0	0	0	0	0	525,833	
825-Clearings	0	0	0	0	0	0	-525,833	0	0	0	0	0	0	-525,833	
Clr Sum	0	0	0	0	0	0	-525,833	0	0	0	0	0	0	-525,833	
Proj Net	13,392	58,179	212,765	77,559	135,655	19,704	-517,253	0	0	0	0	0	0	0	

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Project No: 76416518 Unit 4 Multiplexer I-O Chemical Feed Controls - 2021

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 2/1/2020 Estimated Completion Date 5/31/2018

List Interim In-Service Dates

0

Project Need Justification

Components of the critical plant control input/output (I/O) and communication system have reached the end of their useful lives. Specifically, the existing multiplexer communication cable (MCC) along with the other hardware has integrity issues and requires replacement. Replacement of components to a distributed control system (DCS) is necessary to ensure the integrity of the cooling tower, chemical feed and the auxiliary control systems. The project will use fiber optic and new I/O processing equipment. Additionally, this system will need to be placed offline during the conversion.

Project Alternatives

The alternative to this project is to do nothing and bear the risk of limited redundancy and the difficulty of finding obsolete parts.

Technical Aspects

The multiplexer replacement ensures that the control system and the remote equipment control act in sync to trip when equipment protection is needed. This project will consist of running wire, the installation of I/O racks, engineering review of wiring connections and control, installation of new equipment, termination of old equipment, and final commissioning and check out of the new process. This is an outage project as well with design occurring in 2020 and execution in 2021. The project plan also includes installation of variable frequency drives (VFD's) on Unit 4 cooling tower to be done in conjunction with the before mentioned project to ensure the overall communication design, redundancy, and spare I/O are taken in consideration and ensure the project's overall viability.

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416518	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416518	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416518	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	64,207	67,577	52,020	52,318	18,431	0	0	0	0	0	0	0	254,552
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	687	723	557	560	197	0	0	0	0	0	0	0	2,724
	926-A and G Loads	0	1,522	1,602	1,233	1,240	437	0	0	0	0	0	0	0	6,033
	928-AFUDC Debt Reg	0	67	205	331	441	517	0	0	0	0	0	0	0	1,562
	929-AFUDC - Equity Regular	0	60	185	298	398	466	0	0	0	0	0	0	0	1,408
	937-San Juan AR - Other	0	-15,078	-15,870	-12,216	-12,286	-4,328	0	0	0	0	0	0	0	-59,779
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	51,464	54,421	42,222	42,671	15,720	0	0	0	0	0	0	0	206,499
	825-Clearings	0	0	0	0	0	-206,499	0	0	0	0	0	0	0	-206,499
	Clr Sum	0	0	0	0	0	-206,499	0	0	0	0	0	0	0	-206,499
	Proj Net	0	51,464	54,421	42,222	42,671	-190,779	0	0	0	0	0	0	0	0

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Project No: 76416618 Unit 4 Cooling Tower Raw Water Line Replacement - 2018

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

<u>Construction Start Date</u>	3/1/2018	<u>Estimated Completion Date</u>	7/31/2018
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

The 24" Raw Water Line supply to the Unit 4 Cooling Tower has had multiple leaks in recent years. This project provides for replacement of 250 LF of 24" raw water piping (from Southside of NSW Building to the RW valve vault located east of Unit 3 Cooling tower). The project is needed to ensure proper flow to the cooling tower and to maintain reliability of the unit.

Project Alternatives

Project alternatives evaluated included sleeving the existing line while line losses would accommodate the flow. If the line is not replaced, these temporary repairs can be used, but the overall condition of the piping would require significant costs in terms of excavation, shoring, and repair.

Technical Aspects

This raw water line supplies deliver water to the Unit 4 cooling tower. Water is then evaporated during the heat transfer at the tower and from blowdown to maintain water standards in the tower to our process ponds for cleaning and re-use. As a result, raw water is added to the tower to maintain sufficient levels and some water is supplied from Unit 3 cooling tower to Unit 4 tower. In 2018, all water to the tower will come from raw water as Unit 3 is retired. This project will consist of trenching and shoring a new line route, installation of new piping, and a tie in of new piping to system. This project will be performed to coincide with the Unit 4 scheduled outage in 2018.

Project Estimate Approach

Project is estimated based on similar projects on the raw water line during previous phases.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416618	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416618	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391~Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416618	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	79,000	79,000	144,000	95,000	119,000	80,000	15,000	0	0	0	0	0	611,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	845	845	1,541	1,017	1,273	856	161	0	0	0	0	0	6,538	
926-A and G Loads	0	1,872	1,872	3,413	2,252	2,820	1,896	356	0	0	0	0	0	14,481	
928-AFUDC Debt Reg	0	82	248	482	734	961	1,173	1,278	0	0	0	0	0	4,959	
929-AFUDC - Equity Regular	0	74	223	434	661	866	1,058	1,152	0	0	0	0	0	4,470	
937-San Juan AR - Other	0	-18,552	-18,552	-33,817	-22,310	-27,946	-18,787	-3,523	0	0	0	0	0	-143,487	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	63,322	63,637	116,053	77,354	96,975	66,196	14,424	0	0	0	0	0	497,960	
825-Clearings	0	0	0	0	0	0	0	-497,960	0	0	0	0	0	-497,960	
Clr Sum	0	0	0	0	0	0	0	-497,960	0	0	0	0	0	-497,960	
Proj Net	0	63,322	63,637	116,053	77,354	96,975	66,196	-483,536	0	0	0	0	0	0	

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Project No: 76416630 Unit 4 Feedwater Heater Shell - 2018

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 2/1/2017 Estimated Completion Date 3/31/2018

List Interim In-Service Dates

0

Project Need Justification

During the Unit 4 (U4) 2015 outage, the shell for low pressure (LP) Heater #5 was found to have severe wall loss from flow accelerated corrosion (FAC). A temporary external patch was engineered and installed which will need to be removed by the end of the U4 2018 outage. The shell will need to be either replaced with an upgraded material which resists the FAC or a sectional patch (flush patch repair with upgraded material) to be a certified pressure vessel.

Project Alternatives

The only options are for a full shell replacement or installation of a flush patch in the specific area of no erosion. Per thinning and recommendations from contracted engineering specialists, this replacement must take place in year 2018. The alternative recommended by engineering is the shell replacement to allow for extended lifecycle of the design, and to reduce the risk of failure outside of the three year outage cycle interval.

Technical Aspects

The low pressure feedwater increases the temperature of condensate water. Heating this water increases the efficiency of the unit and reduces the heat rate (i.e., fuel expenses). If feedwater heaters are removed from service, they can drastically affect heat rate of the unit and lead to the unit being de-rated.

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416630	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416630	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	44,250	0	0	125,000	0	155,000	0	324,250	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	473	0	0	1,338	0	1,659	0	3,469	
926-A and G Loads	0	0	0	0	0	0	1,049	0	0	2,963	0	3,674	0	7,685	
928-AFUDC Debt Reg	0	0	0	0	0	0	38	77	78	187	297	433	570	1,680	
929-AFUDC - Equity Regular	0	0	0	0	0	0	50	101	102	245	389	568	748	2,204	
937-San Juan AR - Other	0	0	0	0	0	0	-16,257	0	0	-45,925	0	-56,947	0	-119,129	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	0	0	29,604	178	179	83,807	686	104,386	1,319	220,159	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proj Net	0	0	0	0	0	0	29,604	178	179	83,807	686	104,386	1,319	220,159	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416630	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	324,250	145,000	145,000	138,000	0	0	0	0	0	0	0	0	0	752,250
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,469	1,552	1,552	1,477	0	0	0	0	0	0	0	0	0	8,049
	926-A and G Loads	7,685	3,437	3,437	3,271	0	0	0	0	0	0	0	0	0	17,828
	928-AFUDC Debt Reg	1,680	726	1,033	1,333	0	0	0	0	0	0	0	0	0	4,772
	929-AFUDC - Equity Regular	2,204	655	931	1,202	0	0	0	0	0	0	0	0	0	4,991
	937-San Juan AR - Other	-119,129	-34,052	-34,052	-32,408	0	0	0	0	0	0	0	0	0	-219,640
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	220,159	117,317	117,900	112,874	0	0	0	0	0	0	0	0	0	568,251
	825-Clearings	0	0	0	-568,251	0	0	0	0	0	0	0	0	0	-568,251
	Clr Sum	0	0	0	-568,251	0	0	0	0	0	0	0	0	0	-568,251
	Proj Net	220,159	117,317	117,900	-455,376	0	0	0	0	0	0	0	0	0	0

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Project No: 76416730 Unit 4 Obsolete PLC Replacement - 2021

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 1/15/2017 Estimated Completion Date 6/30/2019

List Interim In-Service Dates
12/1/2017, 12/1/2018, 12/1/2019, 12/1/2020

Project Need Justification

The station uses programmable logic controllers (PLC's) to operate various pieces of equipment at the facility. Over time, these controllers become obsolete. This project will replace specific controllers based on age and risk to newer and more modern controls. Project benefits focus on reliability and protection of equipment and personnel that work around the equipment.

Project Alternatives

Alternatives include doing nothing now and replacing PLC's as they fail. This is detrimental in both cost and reliability. Second option is to eliminate the PLC and install I/O cabinets for use in the main control system. This is an expensive option in terms of installation cost. The recommended option is to replace with up to date PLC's and remain with the current logic architecture.

Technical Aspects

This project would replace the existing PLC with a more modern PLC, with the process including an engineering review of current logic, purchase of new PLC, installation of the process logic, work on test bench to ensure logic functional and design is sound, removal of existing PLC and installation of new PLC. Loop checks and commissioning would complete the project. Depending on the PLC some would require Unit outages, others would not.

Project Estimate Approach

Estimates are based on PLC quotes and engineering and instrumentation labor for execution, design, and testing.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76416730	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76416730	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	9,700	9,700	23,800	9,600	0	0	0	0	0	0	52,800
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	104	104	255	103	0	0	0	0	0	0	565
	926-A and G Loads	0	0	0	230	230	564	228	0	0	0	0	0	0	1,251
	928-AFUDC Debt Reg	0	0	0	8	25	55	84	0	0	0	0	0	0	172
929-AFUDC - Equity Regular		0	0	0	11	33	72	110	0	0	0	0	0	0	226
	937-San Juan AR - Other	0	0	0	-3,564	-3,564	-8,744	-3,527	0	0	0	0	0	0	-19,399
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	6,489	6,529	16,001	6,597	0	0	0	0	0	0	35,616
	825-Clearings	0	0	0	0	0	0	-35,616	0	0	0	0	0	0	-35,616
	Clr Sum	0	0	0	0	0	0	-35,616	0	0	0	0	0	0	-35,616
Proj Net		0	0	0	6,489	6,529	16,001	-29,019	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76416730	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	52,800	0	9,500	18,750	27,750	27,650	18,000	9,000	0	0	0	0	0	163,450	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	565	0	102	201	297	296	193	96	0	0	0	0	0	1,749	
926-A and G Loads	1,251	0	225	444	658	655	427	213	0	0	0	0	0	3,874	
928-AFUDC Debt Reg	172	0	10	39	88	146	195	224	0	0	0	0	0	875	
929-AFUDC - Equity Regular	226	0	9	36	80	132	176	202	0	0	0	0	0	860	
937-San Juan AR - Other	-19,399	0	-2,231	-4,403	-6,517	-6,493	-4,227	-2,114	0	0	0	0	0	-45,384	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	35,616	0	7,615	15,067	22,356	22,386	14,763	7,622	0	0	0	0	0	125,424	
825-Clearings	-35,616	0	0	0	0	0	0	-89,808	0	0	0	0	0	-125,424	
Clr Sum	-35,616	0	0	0	0	0	0	-89,808	0	0	0	0	0	-125,424	
Proj Net	0	0	7,615	15,067	22,356	22,386	14,763	-82,186	0	0	0	0	0	0	

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Project No: 76417115 Unit 4 Economizer Ash Removal System

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 9/1/2015 Estimated Completion Date 8/31/2016

List Interim In-Service Dates

Project Need Justification

The boiler economizer ash removal systems were taken out of service on all San Juan boilers several years ago due to perpetual maintenance issues resulting from the technology which was industry standard at the time. Without this equipment, large volumes of ash accumulate in the areas where the equipment was previously located and in the ductwork downstream of this location. The weight of the accumulated ash has resulted in duct and duct hanger failures. Installation of new ash removal equipment is needed to prevent future duct and duct hanger failures. The industry standard for this application is now a dry flite or “drag chain” conveyor. This technology replaces the pneumatic conveying technology that was the former industry standard. This equipment is attached to the economizer ash hoppers. The scope of work includes a three way isolation valves at each hopper, discharge piping at each hopper to a common dry flite conveyor, a single ash transfer tank, ash crusher, wet sluicing transport piping, miscellaneous piping and valves, miscellaneous small motors and other electrical equipment, electrical cables, control cabinet, Programmable Logic Control (PLC) and control wiring. This control system will be integrated with other ash removal controls. An identical project has been executed on San Juan Unit 1. This equipment is not being installed on San Juan Units 2 and 3 solely because Unit 2 and Unit 3 are shutting down on December 31, 2017.

Project Alternatives

If the condition of ash accumulation below the economizer section of the boiler is to be addressed, the dry flite conveying technology is the current industry standard for this application. No other conveying technology is considered viable. A business alternative would be to “do nothing” and take the risk of reduced reliability resulting from duct or duct hanger failures. These types of failures have happened at San Juan. Due to the short remaining life of Units 2 and 3, the “do nothing” business decision has been made. In order to meet the future reliability targets for Units 1 and 4, it is prudent to minimize the reliability risk associated with ash accumulation driven duct failures by installing this technology. The project provides the added benefit of reducing the O&M cost associated with removing the accumulated ash required to permit maintenance of the economizer section to occur. Removal of accumulated ash is currently a significant cost in preparing for outage maintenance.

Technical Aspects

Ash that collects at this location is heavy large particle ash compared to the light fine particles that collect in both the electrostatic precipitator and the fabric filter. At the time of original construction of the boiler, the industry standard technology for removing ash below the economizer section of the boiler was a

pneumatic conveying system. Pneumatic conveying works well for light fine particle ash but was much less effective with heavy large particle ash. Pneumatic economizer ash removal systems were prone to pluggage throughout the system. Once plugged, ash backed up in the hopper and accumulated in the ductwork, producing virtually the same condition as having no ash removal system at all. The dry flite conveyor technology that has been developed over the past several years has become the industry standard for economizer ash removal system. The scope of work to install a dry flite conveyor included the following equipment and work items: 1. Install four (4) three way isolation valves (one at each economizer hopper) 2. Install discharge piping from each hopper to the dry flite conveyor. 3. Furnish and install auxiliary steel to support dry flite conveyor. 4. Furnish and install access galleries. 5. Install ash transfer tank. 6. Install foundation for ash transfer tank. 7. Install interconnecting piping from dry flite conveyor to ash day tank. 8. Install ash crusher. 9. Install ash day tank conveying piping and valves. 10. Install ash day tank overflow piping. 11. Install dry flite conveyor emergency bypass piping. 12. Connect ash day tank conveying piping to bottom ash conveying piping. 13. Install ash transfer control system and interface to existing bottom ash transfer control system. 14. Install access ladder and platforms for ash transfer tank. 15. Install electrical power and control cables. 16. Install grounding for all equipment.

Project Estimate Approach

Bids were received for the dry flite conveyors from the two leading providers (Allen Sherman Hoff and United Conveyor). A total project estimate was prepared by Burns & McDonnell. The project is roughly 25% process equipment, 15% engineering and project management, 5% quality control, 54% construction labor and commodities, 6% general and administrative overheads and 1% AFUDC. The timing associated with this rate case filing establishes a data date before the project was placed in service but the work was executed under fixed price contracts and therefore the forecast at completion, represented by the value to be cleared, reflects the final actual cost of the project.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76417115	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	2,500,116			0	27,000	0	0	0	0	2,527,116		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	18,732			0	0	0	0	0	0	18,732		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	66,144			0	289	0	0	0	0	66,433		
926-A and G Loads	59,253			0	640	0	0	0	0	59,893		
928-AFUDC Debt Reg	5,318			228	20	0	0	0	0	5,566		
929-AFUDC - Equity Regular	6,975			247	22	0	0	0	0	7,244		
937-San Juan AR - Other	-1,627,348			0	-9,820	0	0	0	0	-1,637,268		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	1,029,190			475	18,051	0	0	0	0	1,047,716		
825-Clearings	-928,093			-101,572	-18,051	0	0	0	0	-1,047,716		
Clr Sum	-928,093			-101,572	-18,051	0	0	0	0	-1,047,716		
Proj Net	101,097			-101,097	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76417115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	2,527,116	0	0	0	0	0	0	0	0	0	0	0	0	2,527,116
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	18,732	0	0	0	0	0	0	0	0	0	0	0	0	18,732
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	66,433	0	0	0	0	0	0	0	0	0	0	0	0	66,433
	926-A and G Loads	59,893	0	0	0	0	0	0	0	0	0	0	0	0	59,893
	928-AFUDC Debt Reg	5,566	0	0	0	0	0	0	0	0	0	0	0	0	5,566
	929-AFUDC - Equity Regular	7,244	0	0	0	0	0	0	0	0	0	0	0	0	7,244
	937-San Juan AR - Other	-1,637,268	0	0	0	0	0	0	0	0	0	0	0	0	-1,637,268
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,047,716	0	0	0	0	0	0	0	0	0	0	0	0	1,047,716
	825-Clearings	-1,047,716	0	0	0	0	0	0	0	0	0	0	0	0	-1,047,716
	Clr Sum	-1,047,716	0	0	0	0	0	0	0	0	0	0	0	0	-1,047,716
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76417115	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	2,527,116	0	0	0	0	0	0	0	0	0	0	0	0	2,527,116
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	18,732	0	0	0	0	0	0	0	0	0	0	0	0	18,732
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	66,433	0	0	0	0	0	0	0	0	0	0	0	0	66,433
	926-A and G Loads	59,893	0	0	0	0	0	0	0	0	0	0	0	0	59,893
	928-AFUDC Debt Reg	5,566	0	0	0	0	0	0	0	0	0	0	0	0	5,566
	929-AFUDC - Equity Regular	7,244	0	0	0	0	0	0	0	0	0	0	0	0	7,244
	937-San Juan AR - Other	-1,637,268	0	0	0	0	0	0	0	0	0	0	0	0	-1,637,268
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,047,716	0	0	0	0	0	0	0	0	0	0	0	0	1,047,716
	825-Clearings	-1,047,716	0	0	0	0	0	0	0	0	0	0	0	0	-1,047,716
	Clr Sum	-1,047,716	0	0	0	0	0	0	0	0	0	0	0	0	-1,047,716
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 76417117 Unit 4 Acoustic Leak Detection - 2018

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 5/1/2017 Estimated Completion Date 6/30/2018

List Interim In-Service Dates

N/A

Project Need Justification

Currently, Unit 4 has only two acoustic leak detector devices near the secondary superheat section of the boiler. This project would add additional instruments throughout the boiler for additional early detection of tube leaks. Early detection allows for better decision making and reduced collateral damage.

Project Alternatives

PNM could keep the current two leak detection devices and risk collateral damage due to missed detections. It is engineering's recommendation to add additional devices similar to those added to Unit 2, as it has proven successful. Alternatives are only available in deciding the amount and location of devices to be installed.

Technical Aspects

Project consists of installing additional devices throughout the membrane of the boiler, and connecting wiring devices to the data acquisition system of the plant and the operator interface. The devices will be calibrated to detect variations in noise to notify operations staff of potential tube leaks before failure.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76417117	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76417117	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jui	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	9,753	41	29,000	38,000	332	77,127
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	104	0	310	407	4	825
	926-A and G Loads	0	0	0	0	0	0	0	0	231	1	687	901	8	1,828
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	8	17	42	101	135	304
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	11	22	56	132	177	398
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	-3,583	-15	-10,655	-13,961	-122	-28,336
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	6,525	67	19,441	25,579	533	52,146
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	6,525	67	19,441	25,579	533	52,146

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76417117	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	77,127	87,300	87,300	67,900	48,500	38,652	19,968	0	0	0	0	0	0	426,747	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	825	934	934	727	519	414	214	0	0	0	0	0	0	4,566	
926-A and G Loads	1,828	2,069	2,069	1,609	1,149	916	473	0	0	0	0	0	0	10,114	
928-AFUDC Debt Reg	304	227	411	575	699	794	859	0	0	0	0	0	0	3,868	
929-AFUDC - Equity Regular	398	205	370	518	630	715	774	0	0	0	0	0	0	3,611	
937-San Juan AR - Other	-28,336	-20,502	-20,502	-15,946	-11,390	-9,077	-4,689	0	0	0	0	0	0	-110,441	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	52,146	70,234	70,583	55,383	40,108	32,413	17,599	0	0	0	0	0	0	338,466	
825-Clearings	0	0	0	0	0	0	-338,466	0	0	0	0	0	0	-338,466	
Clr Sum	0	0	0	0	0	0	-338,466	0	0	0	0	0	0	-338,466	
Proj Net	52,146	70,234	70,583	55,383	40,108	32,413	-320,867	0	0	0	0	0	0	0	

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Project No: 76417417 Unit 4 Hydrogen Gas and Cooling Water Regulators - 2018

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 6/30/2018

List Interim In-Service Dates

N/A

Project Need Justification

Currently, water and gas pressure regulation devices do no work as designed, which has led to a fluctuation in hydrogen gas pressure and increases in the batch process. This project looks to replace the water and gas regulation devices to allow the unit to operate with a constant hydrogen pressure. This will reduce the risk of insufficient curve monitoring and more accurately indicate the adjustments needed to both hydrogen (H2) and cooling water pressure.

Project Alternatives

The only other alternative is to continue operating as a batch process system, which will negatively affect the accuracy and efficiency of the unit.

Technical Aspects

Technical aspects for the project will involve replacement of the regulator and installation of new control function ties to ensure prompt response times within PNM's current controls system.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76417417	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project 76417417	Year	2017													
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	0	0	9,462	31	18,955	37,942	38,067	104,457	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	101	0	203	406	407	1,118	
926-A and G Loads	0	0	0	0	0	0	0	0	224	1	449	899	902	2,476	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	8	17	33	83	149	290	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	11	22	43	109	196	380	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	-3,476	-11	-6,964	-13,940	-13,986	-38,377	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	0	0	0	0	6,330	59	12,720	25,499	25,736	70,344	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proj Net	0	0	0	0	0	0	0	0	6,330	59	12,720	25,499	25,736	70,344	

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76417417	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	104,457	220	28,498	57,828	19,007	19,047	9,232	0	0	0	0	0	0	238,288	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	1,118	2	305	619	203	204	99	0	0	0	0	0	0	2,550	
926-A and G Loads	2,476	5	675	1,371	450	451	219	0	0	0	0	0	0	5,647	
928-AFUDC Debt Reg	290	184	215	306	388	429	461	0	0	0	0	0	0	2,273	
929-AFUDC - Equity Regular	380	166	194	276	350	387	416	0	0	0	0	0	0	2,168	
937-San Juan AR - Other	-38,377	-52	-6,692	-13,580	-4,463	-4,473	-2,168	0	0	0	0	0	0	-69,806	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	70,344	525	23,194	46,819	15,934	16,046	8,258	0	0	0	0	0	0	181,120	
825-Clearings	0	0	0	0	0	0	-181,120	0	0	0	0	0	0	-181,120	
Clr Sum	0	0	0	0	0	0	-181,120	0	0	0	0	0	0	-181,120	
Proj Net	70,344	525	23,194	46,819	15,934	16,046	-172,862	0	0	0	0	0	0	0	

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Project No: 76421912 SJ U4 SNCR \$493,389 \$498,259 \$493,389

Company: 003-Bulk Power
Location: 764 San Juan

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date 10/31/2017

List Interim In-Service Dates

0

Project Need Justification

This San Juan selective non-catalytic reduction (SNCR) project encompasses the remaining installation work for the SNCR's on San Juan Units 1 and 4 as required by the revised State Implementation Plan (SIP). This project is for the Unit 4 portion.

Project Alternatives

There are no alternatives for this project. Per the below federal and state mandates, these improvements are required. Effective September 21, 2011 the United States Environmental Protection Agency ("EPA") adopted the Federal Implementation Plan ("FIP") establishing selective catalytic control ("SCR") technology as Best Available Retrofit Technology ("BART") for San Juan Generating Station ("SJGS") to meet the requirements of EPA's Regional Haze Rule under the Clean Air Act ("CAA"). Among other things, the FIP established a limit on nitrogen oxide ("NOx") emissions of no more than 0.05 lb./MMBtu at each unit of SJGS. The EPA determined that the NOx emissions limits can only be achieved by installing SCR. Therefore, the EPA required SJGS to meet this limit by September 21, 2016. New Mexico submitted a revised "RSIP" identifying a less expensive technology, Selective Non-Catalytic Reduction ("SNCR"), as BART for NOx emissions. Among other things, the RSIP sets out a process and timeline whereby BART compliance would be achieved by the retirement of SJGS Units 2 and 3 by December 31, 2017, with SNCR to be installed on Units 1 and 4 by January 31, 2016. The RSIP was submitted to EPA on October 7, 2013. The EPA determined that the RSIP was complete on December 17, 2013, and granted final approval on October 9, 2014. The RSIP for SJGS addresses the Regional Haze rule and provides significant additional environmental benefits at a lower cost than the FIP including reductions associated with: • Nitrogen oxides, sulfur dioxide, particulate matter, carbon dioxide and mercury- approximately 50% • Water Consumption- about 53% • Coal Ash Generation- about 48% • Truck Traffic (hauling coal ash back to the mine) and Raw Material Deliveries and • Visible Plumes (reduces stacks from four to two) In addition, the RSIP plays a significant role in the state of New Mexico's compliance with the recently finalized Clean Power Plan under the Clean Air Act Section 111(d).

Technical Aspects

SNCR is a post-combustion control technology for NOx emissions. SNCR uses an amine-based reagent (Urea in San Juan's case) which is injected into the boiler and reacts with NOx to reduce it to molecular nitrogen (N2) and water. In order to inject the reagent, the boiler walls must be penetrated and lances must be installed for the delivery of the reagent into the heated boiler. The chemical reaction associated with the operation of SNCR results in the generation of ammonia.

Project Estimate Approach

Original estimates were provided by Sargent & Lundy LLC, a leading engineering firm in the utility industry which has executed numerous projects of this nature. All equipment for the project is being provided under firm price contracts which have been fully executed. A proposal for construction services to install all equipment has been fully negotiated and is in the process of being executed by PNM and its contracting partner, Graycor Industrial Constructors. The value of the contract is \$27.3 million. Equipment contracts have a combined value of roughly \$25 million. The balance of the cost estimate includes engineering, construction management, project management, insurance, and general and administrative loads.

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76421912	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	312,693			0	0	0	0	0	0	312,693		
120-Overtime-General	43,275			0	0	0	0	0	0	43,275		
350-Material Issues-Major	1,265,372			0	0	0	0	0	0	1,265,372		
370-Outside Services	55,658,877			0	0	0	0	0	0	55,658,877		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	347,467			0	0	0	0	0	0	347,467		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	40,828			0	0	0	0	0	0	40,828		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	27,126			0	0	0	0	0	0	27,126		
914-Pension and Benefits Load	107,452			0	0	0	0	0	0	107,452		
915-Injuries and Damages Load	15,683			0	0	0	0	0	0	15,683		
918-San Juan AR-Labor	-296,230			0	0	0	0	0	0	-296,230		
921-Stores / Purchasing Load	456,546			0	0	0	0	0	0	456,546		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	589,632			0	0	0	0	0	0	589,632		
928-AFUDC Debt Reg	439,049			569	0	0	0	0	0	439,618		
929-AFUDC - Equity Regular	578,757			616	0	0	0	0	0	579,374		
937-San Juan AR - Other	-33,903,941			0	0	0	0	0	0	-33,903,941		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	25,682,588			1,185	0	0	0	0	0	25,683,773		
825-Clearings	-27,229,062			-253,640	0	0	0	0	0	-27,482,702		
Clr Sum	-27,229,062			-253,640	0	0	0	0	0	-27,482,702		
Proj Net	-1,546,474			-252,455	0	0	0	0	0	-1,798,929		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76421912	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	312,693	0	0	0	0	0	0	0	0	0	0	0	0	312,693
	120-Overtime-General	43,275	0	0	0	0	0	0	0	0	0	0	0	0	43,275
	350-Material Issues-Major	1,265,372	0	0	0	0	0	0	0	0	0	0	0	0	1,265,372
	370-Outside Services	55,658,877	19,380	19,380	77,120	77,120	77,120	0	0	0	48,450	48,450	0	0	56,025,897
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	347,467	0	0	0	0	0	0	0	0	0	0	0	0	347,467
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	40,828	0	0	0	0	0	0	0	0	0	0	0	0	40,828
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	27,126	0	0	0	0	0	0	0	0	0	0	0	0	27,126
	914-Pension and Benefits Load	107,452	0	0	0	0	0	0	0	0	0	0	0	0	107,452
	915-Injuries and Damages Load	15,683	0	0	0	0	0	0	0	0	0	0	0	0	15,683
	918-San Juan AR-Labor	-296,230	0	0	0	0	0	0	0	0	0	0	0	0	-296,230
	921-Stores / Purchasing Load	456,546	0	0	0	0	0	0	0	0	0	0	0	0	456,546
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	589,632	194	194	771	771	771	0	0	0	485	485	0	0	593,302
	928-AFUDC Debt Reg	439,618	16	16	65	65	65	0	0	0	41	41	0	0	439,930
	929-AFUDC - Equity Regular	579,374	22	22	86	86	86	0	0	0	54	54	0	0	579,782
	937-San Juan AR - Other	-33,903,941	-6,952	-6,952	-27,665	-27,665	-27,665	0	0	0	-17,381	-17,381	0	0	-34,035,603
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	25,683,773	12,660	12,660	50,377	50,377	50,377	0	0	0	31,649	31,649	0	0	25,923,522
	825-Clearings	-27,482,702	-12,660	-12,660	-50,377	-50,377	-50,377	0	0	0	-31,649	-31,649	0	0	-27,722,451
	Clr Sum	-27,482,702	-12,660	-12,660	-50,377	-50,377	-50,377	0	0	0	-31,649	-31,649	0	0	-27,722,451
	Proj Net	-1,798,929	0	0	0	0	0	0	0	0	0	0	0	0	-1,798,929

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76421912	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	312,693	0	0	0	0	0	0	0	0	0	0	0	0	312,693
	120-Overtime-General	43,275	0	0	0	0	0	0	0	0	0	0	0	0	43,275
	350-Material Issues-Major	1,265,372	0	0	0	0	0	0	0	0	0	0	0	0	1,265,372
	370-Outside Services	56,025,897	0	0	0	0	0	0	0	0	0	0	0	0	56,025,897
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	347,467	0	0	0	0	0	0	0	0	0	0	0	0	347,467
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	40,828	0	0	0	0	0	0	0	0	0	0	0	0	40,828
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	27,126	0	0	0	0	0	0	0	0	0	0	0	0	27,126
	914-Pension and Benefits Load	107,452	0	0	0	0	0	0	0	0	0	0	0	0	107,452
	915-Injuries and Damages Load	15,683	0	0	0	0	0	0	0	0	0	0	0	0	15,683
	918-San Juan AR-Labor	-296,230	0	0	0	0	0	0	0	0	0	0	0	0	-296,230
	921-Stores / Purchasing Load	456,546	0	0	0	0	0	0	0	0	0	0	0	0	456,546
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	593,302	0	0	0	0	0	0	0	0	0	0	0	0	593,302
	928-AFUDC Debt Reg	439,930	0	0	0	0	0	0	0	0	0	0	0	0	439,930
	929-AFUDC - Equity Regular	579,782	0	0	0	0	0	0	0	0	0	0	0	0	579,782
	937-San Juan AR - Other	-34,035,603	0	0	0	0	0	0	0	0	0	0	0	0	-34,035,603
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	25,923,522	0	0	0	0	0	0	0	0	0	0	0	0	25,923,522
	825-Clearings	-27,722,451	0	0	0	0	0	0	0	0	0	0	0	0	-27,722,451
	Clr Sum	-27,722,451	0	0	0	0	0	0	0	0	0	0	0	0	-27,722,451
	Proj Net	-1,798,929	0	0	0	0	0	0	0	0	0	0	0	0	-1,798,929

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Project No: 76616316 Common Brine Concentrator Tube Shell Reclad - 2016

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 2/1/2016 Estimated Completion Date 7/31/2016

List Interim In-Service Dates

0

Project Need Justification

The purpose of the brine concentrator is to prepare water for use in the power plant. The brine concentrator #4 is in need of a tube shell reclad to protect the tube bundle from wear and damage. The shell is currently a 316-liter stainless steel material that has been corroded. This project removes the existing shell and overlays or replaces the damaged areas with an upgrades AL-6XN material. This material has superior corrosion resistance and is expected to last longer than the 316-liter stainless steel material.

Project Alternatives

The alternative would be to replace the 316-liter stainless material with the product of the same material, knowing that it would not last as long as the recommended AL-6XN material.

Technical Aspects

The brine concentrator is used to treat water before being used in the power plant. When these units are out of service the plant has to be very careful with its water usage or else risk a derating of the units.

Project Estimate Approach

Estimate is based on a study performed by an Engineering firm which also provided cost estimates of new tube bundle. Installation costs are based on previous similar work activity.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76616316	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	9,971			0	0	0	0	0	0	9,971		
370-Outside Services	154,169			48,250	0	0	0	0	0	202,419		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	466			0	0	0	0	0	0	466		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	1,447			0	0	0	0	0	0	1,447		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	3,128			516	0	0	0	0	0	3,644		
926-A and G Loads	3,901			1,144	0	0	0	0	0	5,045		
928-AFUDC Debt Reg	203			0	0	0	0	0	0	203		
929-AFUDC - Equity Regular	92			0	0	0	0	0	0	92		
937-San Juan AR - Other	-85,218			-20,627	0	0	0	0	0	-105,845		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	88,158			29,283	0	0	0	0	0	117,441		
825-Clearings	0			-126,823	0	0	0	0	0	-126,823		
Clr Sum	0			-126,823	0	0	0	0	0	-126,823		
Proj Net	88,158			-97,541	0	0	0	0	0	-9,383		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76616316	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	9,971	0	0	0	0	0	0	0	0	0	0	0	0	9,971
	370-Outside Services	202,419	0	0	0	0	0	0	0	0	0	0	0	0	202,419
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	466	0	0	0	0	0	0	0	0	0	0	0	0	466
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	1,447	0	0	0	0	0	0	0	0	0	0	0	0	1,447
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,644	0	0	0	0	0	0	0	0	0	0	0	0	3,644
	926-A and G Loads	5,045	0	0	0	0	0	0	0	0	0	0	0	0	5,045
	928-AFUDC Debt Reg	203	0	0	0	0	0	0	0	0	0	0	0	0	203
	929-AFUDC - Equity Regular	92	0	0	0	0	0	0	0	0	0	0	0	0	92
	937-San Juan AR - Other	-105,845	0	0	0	0	0	0	0	0	0	0	0	0	-105,845
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	117,441	0	0	0	0	0	0	0	0	0	0	0	0	117,441
	825-Clearings	-126,823	0	0	0	0	0	0	0	0	0	0	0	0	-126,823
	Clr Sum	-126,823	0	0	0	0	0	0	0	0	0	0	0	0	-126,823
Proj Net		-9,383	0	0	0	0	0	0	0	0	0	0	0	0	-9,383

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76616316	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	9,971	0	0	0	0	0	0	0	0	0	0	0	0	9,971
	370-Outside Services	202,419	0	0	0	0	0	0	0	0	0	0	0	0	202,419
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	466	0	0	0	0	0	0	0	0	0	0	0	0	466
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		1,447	0	0	0	0	0	0	0	0	0	0	0	0	1,447
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,644	0	0	0	0	0	0	0	0	0	0	0	0	3,644
	926-A and G Loads	5,045	0	0	0	0	0	0	0	0	0	0	0	0	5,045
	928-AFUDC Debt Reg	203	0	0	0	0	0	0	0	0	0	0	0	0	203
929-AFUDC - Equity Regular		92	0	0	0	0	0	0	0	0	0	0	0	0	92
937-San Juan AR - Other		-105,845	0	0	0	0	0	0	0	0	0	0	0	0	-105,845
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	117,441	0	0	0	0	0	0	0	0	0	0	0	0	117,441
	825-Clearings	-126,823	0	0	0	0	0	0	0	0	0	0	0	0	-126,823
	Clr Sum	-126,823	0	0	0	0	0	0	0	0	0	0	0	0	-126,823

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Project No: 76616517 Common Mezzanine Level HVAC Replacement - 2017

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 7/31/2018

List Interim In-Service Dates

N/A

Project Need Justification

This project would replace and modify duct and dampers for the heating, ventilation and air conditioning (HVAC) system in plant mezzanine area. This area houses the plant's staff and the controls system. This project would add HVAC capacity and separate the ducts to balance load in the area. To ensure comfortable working conditions for personnel in the area, this project is necessary.

Project Alternatives

Other than doing nothing, the only other alternative would be the purchase of individual cooling systems the area. This would be highly inefficient as compared to just installing a new HVAC system.

Technical Aspects

Project would include designing load to properly size the duct and unit. In addition, supply and return water systems would be installed along with various zone controls.

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76616517	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76616517	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
929-AFUDC - Equity Regular		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76616517	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	9,700	9,700	0	289,000	95,500	27,500	0	0	0	0	0	431,400
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	104	104	0	3,092	1,022	294	0	0	0	0	0	4,616
	926-A and G Loads	0	0	230	230	0	6,849	2,263	652	0	0	0	0	0	10,224
	928-AFUDC Debt Reg	0	0	9	26	35	294	640	753	0	0	0	0	0	1,757
	929-AFUDC - Equity Regular	0	0	8	24	31	265	577	679	0	0	0	0	0	1,584
	937-San Juan AR - Other	0	0	-3,377	-3,377	0	-100,612	-33,247	-9,574	0	0	0	0	0	-150,187
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	6,673	6,706	66	198,889	66,755	20,305	0	0	0	0	0	299,395
	825-Clearings	0	0	0	0	0	0	0	-299,395	0	0	0	0	0	-299,395
	Clr Sum	0	0	0	0	0	0	0	-299,395	0	0	0	0	0	-299,395
Proj Net		0	0	6,673	6,706	66	198,889	66,755	-279,090	0	0	0	0	0	0

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Project No: 76616518 Common System Support - Decommissioning (42.697% PNM) - 2018

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 1/15/2018 Estimated Completion Date 5/31/2018

List Interim In-Service Dates
0

Project Need Justification

This project is to complete the retirement process for Units 2 and 3. Scope is focused on cleaning ash and coal from affected areas and removing the Unit 2 wood structure cooling tower.

Project Alternatives

There are no alternatives for this project. This is a contractual engagement. Project alternatives are evaluated on a case by case basis for risk, benefit, and investment costs.

Technical Aspects

The ash and coal affected areas of Units 2 and 3 require cleaning to minimize safety and environmental risk. In addition, the wood structure possesses a fire hazard requiring removal.

Project Estimate Approach

Costs are based on an engineering decommissioning study.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76616518	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76616518	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
929-AFUDC - Equity Regular		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76616518	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	305,379	228,050	149,929	149,929	72,793	0	0	0	0	0	0	0	906,080
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	3,268	2,440	1,604	1,604	779	0	0	0	0	0	0	0	9,695
	926-A and G Loads	0	7,237	5,405	3,553	3,553	1,725	0	0	0	0	0	0	0	21,474
	928-AFUDC Debt Reg	0	274	753	1,095	1,370	1,576	0	0	0	0	0	0	0	5,068
	929-AFUDC - Equity Regular	0	247	679	987	1,235	1,421	0	0	0	0	0	0	0	4,568
	937-San Juan AR - Other	0	-106,314	-79,393	-52,196	-52,196	-25,342	0	0	0	0	0	0	0	-315,441
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	210,090	157,934	104,974	105,495	52,952	0	0	0	0	0	0	0	631,444
	825-Clearings	0	0	0	0	0	-631,444	0	0	0	0	0	0	0	-631,444
	Clr Sum	0	0	0	0	0	-631,444	0	0	0	0	0	0	0	-631,444
	Proj Net	0	210,090	157,934	104,974	105,495	-578,493	0	0	0	0	0	0	0	0

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Project No: 76616616 Common Oxidation Blower Separate PLC Control - 2016

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 2/1/2016 Estimated Completion Date 11/30/2016

List Interim In-Service Dates

0

Project Need Justification

The oxidation blowers are used to provide additional air to the absorber cells to complete the chemical process in reducing sulfur dioxide (SO2). Currently, all three oxidation blowers for all four units operate from the same programmable logic controller (PLC). This poses a contingency problem because this is a single point of failure. If a problem arises with the PLC, all blowers could be affected. Absorbers can run without the air provided from these blowers for a short period of time but this extra air is needed to maintain the SO2 removal rates so the power plant stays in environmental compliance. This project will provide a separate PLC control for each oxidation blower so that a failure of one controller would not affect the others.

Project Alternatives

The only alternative would be to do nothing and risk a complete system failure by waiting for the PLC to eventually fail.

Technical Aspects

The oxidation blowers are used to provide additional air to the absorber cells for all four units. This additional air is used to improve the removal rate of SO2 from the boiler exit flue gas, thus improving the plants environmental compliance.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76616616	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			39,950	32,750	76,500	9,150	37,250	0	195,600		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-440	-440	0	-879		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			427	350	819	98	399	0	2,093		
926-A and G Loads	0			947	776	1,813	217	883	0	4,636		
928-AFUDC Debt Reg	0			27	77	152	211	243	0	711		
929-AFUDC - Equity Regular	0			30	84	165	229	263	0	770		
937-San Juan AR - Other	0			-17,079	-14,001	-32,704	-3,912	-15,925	0	-83,620		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			24,302	20,036	46,744	5,553	22,673	0	119,309		
825-Clearings	0			0	0	0	0	-119,309	0	-119,309		
Clr Sum	0			0	0	0	0	-119,309	0	-119,309		
Proj Net	0			24,302	20,036	46,744	5,553	-96,636	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76616616	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	195,600	0	0	0	0	0	0	0	0	0	0	0	0	195,600
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-879	0	0	0	0	0	0	0	0	0	0	0	0	-879
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,093	0	0	0	0	0	0	0	0	0	0	0	0	2,093
	926-A and G Loads	4,636	0	0	0	0	0	0	0	0	0	0	0	0	4,636
	928-AFUDC Debt Reg	711	0	0	0	0	0	0	0	0	0	0	0	0	711
	929-AFUDC - Equity Regular	770	0	0	0	0	0	0	0	0	0	0	0	0	770
	937-San Juan AR - Other	-83,620	0	0	0	0	0	0	0	0	0	0	0	0	-83,620
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	119,309	0	0	0	0	0	0	0	0	0	0	0	0	119,309
	825-Clearings	-119,309	0	0	0	0	0	0	0	0	0	0	0	0	-119,309
	Clr Sum	-119,309	0	0	0	0	0	0	0	0	0	0	0	0	-119,309
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76616616	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	195,600	0	0	0	0	0	0	0	0	0	0	0	0	195,600
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-879	0	0	0	0	0	0	0	0	0	0	0	0	-879
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,093	0	0	0	0	0	0	0	0	0	0	0	0	2,093
	926-A and G Loads	4,636	0	0	0	0	0	0	0	0	0	0	0	0	4,636
	928-AFUDC Debt Reg	711	0	0	0	0	0	0	0	0	0	0	0	0	711
929-AFUDC - Equity Regular		770	0	0	0	0	0	0	0	0	0	0	0	0	770
937-San Juan AR - Other		-83,620	0	0	0	0	0	0	0	0	0	0	0	0	-83,620
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	119,309	0	0	0	0	0	0	0	0	0	0	0	0	119,309
	825-Clearings	-119,309	0	0	0	0	0	0	0	0	0	0	0	0	-119,309
	Clr Sum	-119,309	0	0	0	0	0	0	0	0	0	0	0	0	-119,309
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 76616716 Common Communication Network - 2018

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 1/15/2018 Estimated Completion Date 10/31/2018

List Interim In-Service Dates

0

Project Need Justification

This project involves installing additional fiber wire communication pulls to improve the resiliency reliability of San Juan's communication. The project will provide benefits for both data and voice acquisition.

Project Alternatives

The only alternative would be to do nothing and continue to use the existing communications network. Selecting this option would mean that San Juan would continue to be at risk of experiencing reliability and data quality issues. Specific alternatives will be evaluated based on the location of cross ties, location of the Joint Control Room location, programmable logic controller (PLC) replacement projects, and any necessary architecture adjustments needed due to the new CIP revision.

Technical Aspects

Project will involve replacement of PLC field devices and reconfiguring control logic including startup and commissioning to verify proper functionality.

Project Estimate Approach

Estimate is based on information from plant engineering staff and will be refined based on other project approvals.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76616716	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			47,500	38,250	12,750	105,750	95,750	0	300,000		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	3,460			0	0	0	0	0	0	3,460		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-1,046	-1,046	0	-2,092		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	1,424			0	0	0	0	0	0	1,424		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	4,429			508	409	136	1,132	1,025	0	7,639		
926-A and G Loads	5,524			1,126	907	302	2,506	2,269	0	12,634		
928-AFUDC Debt Reg	253			323	384	420	502	640	0	2,523		
929-AFUDC - Equity Regular	112			350	415	455	544	693	0	2,570		
937-San Juan AR - Other	-120,370			-20,307	-16,352	-5,451	-45,209	-40,934	0	-248,622		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	-105,168			29,501	24,013	8,613	64,179	58,397	0	79,536		
825-Clearings	0			0	0	0	0	-313,811	0	-313,811		
Clr Sum	0			0	0	0	0	-313,811	0	-313,811		
Proj Net	-105,168			29,501	24,013	8,613	64,179	-255,414	0	-234,276		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76616716	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	300,000	0	0	0	0	0	0	0	0	0	0	0	0	300,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	3,460	0	0	0	0	0	0	0	0	0	0	0	0	3,460
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,092	0	0	0	0	0	0	0	0	0	0	0	0	-2,092
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	1,424	0	0	0	0	0	0	0	0	0	0	0	0	1,424
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	7,639	0	0	0	0	0	0	0	0	0	0	0	0	7,639
	926-A and G Loads	12,634	0	0	0	0	0	0	0	0	0	0	0	0	12,634
	928-AFUDC Debt Reg	2,523	0	0	0	0	0	0	0	0	0	0	0	0	2,523
	929-AFUDC - Equity Regular	2,570	0	0	0	0	0	0	0	0	0	0	0	0	2,570
	937-San Juan AR - Other	-248,622	0	0	0	0	0	0	0	0	0	0	0	0	-248,622
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	79,536	0	0	0	0	0	0	0	0	0	0	0	0	79,536
	825-Clearings	-313,811	0	0	0	0	0	0	0	0	0	0	0	0	-313,811
	Clr Sum	-313,811	0	0	0	0	0	0	0	0	0	0	0	0	-313,811
	Proj Net	-234,276	0	0	0	0	0	0	0	0	0	0	0	0	-234,276

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76616716	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	300,000	0	0	0	0	0	0	24,250	72,750	62,250	19,000	0	0	478,250	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	3,460	0	0	0	0	0	0	0	0	0	0	0	0	3,460	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	-2,092	0	0	0	0	0	0	0	0	0	0	0	0	-2,092	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	1,424	0	0	0	0	0	0	0	0	0	0	0	0	1,424	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	7,639	0	0	0	0	0	0	259	778	666	203	0	0	9,546	
926-A and G Loads	12,634	0	0	0	0	0	0	575	1,724	1,475	450	0	0	16,859	
928-AFUDC Debt Reg	2,523	0	0	0	0	0	0	22	109	230	304	0	0	3,188	
929-AFUDC - Equity Regular	2,570	0	0	0	0	0	0	20	98	208	274	0	0	3,169	
937-San Juan AR - Other	-248,622	0	0	0	0	0	0	-8,442	-25,327	-21,672	-6,615	0	0	-310,678	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	79,536	0	0	0	0	0	0	16,683	50,132	43,158	13,617	0	0	203,126	
825-Clearings	-313,811	0	0	0	0	0	0	0	0	0	-123,591	0	0	-437,402	
Clr Sum	-313,811	0	0	0	0	0	0	0	0	0	-123,591	0	0	-437,402	
Proj Net	-234,276	0	0	0	0	0	0	16,683	50,132	43,158	-109,973	0	0	-234,276	

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Project No: 76616817 Common Cathodic Protection System - 2017

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 2/1/2017 Estimated Completion Date 11/30/2018

List Interim In-Service Dates
N/A

Project Need Justification
This project would add cathodic wells and tie into various grid locations to reduce corrosion of underground piping. Location will be focused near or around the north side wastewater area.

Project Alternatives
There are no alternatives to this project other than to do nothing. This would affect the quality and integrity of the water system.

Technical Aspects
Project work will involve sizing the location, drilling and setting the well, tying the line into the grid and final testing of well performance.

Project Estimate Approach
Project is based on vendor quotes and costs from similar projects.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76616817	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76616817	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads		0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads		0	0	0	0	0	0	0	0	0	0	0	0	0	0
928-AFUDC Debt Reg		0	0	0	0	0	0	0	0	0	0	0	0	0	0
929-AFUDC - Equity Regular		0	0	0	0	0	0	0	0	0	0	0	0	0	0
937-San Juan AR - Other		0	0	0	0	0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76616817	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	100,000	0	0	125,000	0	0	125,000	0	100,750	0	450,750	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	1,070	0	0	1,338	0	0	1,338	0	1,078	0	4,823	
926-A and G Loads	0	0	0	2,370	0	0	2,963	0	0	2,963	0	2,388	0	10,683	
928-AFUDC Debt Reg	0	0	0	90	180	181	293	407	409	523	638	731	0	3,451	
929-AFUDC - Equity Regular	0	0	0	81	162	163	265	367	369	471	575	659	0	3,111	
937-San Juan AR - Other	0	0	0	-34,814	0	0	-43,517	0	0	-43,517	0	-35,075	0	-156,923	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	68,797	342	343	86,341	774	778	86,777	1,212	70,531	0	315,894	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	-315,894	0	-315,894	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	-315,894	0	-315,894	
Proj Net	0	0	0	68,797	342	343	86,341	774	778	86,777	1,212	-245,363	0	0	

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Project No: 76617117 Common North Side N1 Pond Remediation - 2018

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 1/15/2017 Estimated Completion Date 12/31/2017

List Interim In-Service Dates
N/A

Project Need Justification
A previous project dried, capped and closed the North evaporation pond N1. It was known that when work began on ponds N2 and N3, there would be some drainage adjustments needed to pond N1. It will be necessary to coordinate with two different state environmental departments with several procedural measures to move forward in completing the work on Pond N1. This capital is required to meet those needs. Project is timed for year 2017 and completion in 2018 to match the other ponds and reduce costs.

Project Alternatives
There is no alternative to this environmental requirement other than delay of completion of work which would increase cost, especially in the form of fines.

Technical Aspects
Project will consist primarily of earth work and erosion control installation. Most of the design work has been completed by a third party engineering firm.

Project Estimate Approach
Cost estimates are based on previous projects with similar scope.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617117	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617117	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	24,250	24,250	24,250	24,250	0	24,000	105,250	105,250	105,250	65,500	502,250	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	259	259	259	259	0	257	1,126	1,126	1,126	701	5,374	
926-A and G Loads	0	0	0	575	575	575	575	0	569	2,494	2,494	2,494	1,552	11,903	
928-AFUDC Debt Reg	0	0	0	19	58	96	135	155	175	279	447	616	755	2,735	
929-AFUDC - Equity Regular	0	0	0	25	76	126	177	204	230	365	586	808	990	3,587	
937-San Juan AR - Other	0	0	0	-10,367	-10,367	-10,367	-10,367	0	-10,260	-44,995	-44,995	-44,995	-28,002	-214,715	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	14,761	14,850	14,940	15,030	359	14,970	64,519	64,908	65,299	41,496	311,134	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-311,134	-311,134	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-311,134	-311,134	
Proj Net	0	0	0	14,761	14,850	14,940	15,030	359	14,970	64,519	64,908	65,299	-269,638	0	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617117	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	502,250	0	0	0	0	0	0	0	0	0	0	0	0	502,250
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	5,374	0	0	0	0	0	0	0	0	0	0	0	0	5,374
	926-A and G Loads	11,903	0	0	0	0	0	0	0	0	0	0	0	0	11,903
	928-AFUDC Debt Reg	2,735	0	0	0	0	0	0	0	0	0	0	0	0	2,735
	929-AFUDC - Equity Regular	3,587	0	0	0	0	0	0	0	0	0	0	0	0	3,587
	937-San Juan AR - Other	-214,715	0	0	0	0	0	0	0	0	0	0	0	0	-214,715
	961-Luna A&G PNM R D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	311,134	0	0	0	0	0	0	0	0	0	0	0	0	311,134
	825-Clearings	-311,134	0	0	0	0	0	0	0	0	0	0	0	0	-311,134
	Clr Sum	-311,134	0	0	0	0	0	0	0	0	0	0	0	0	-311,134
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 76617217 Common North Side Wastewater MCC-2 Cubicle Buckets -2017

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 1/15/2017 Estimated Completion Date 11/30/2017

List Interim In-Service Dates

N/A

Project Need Justification

The originally installed motor control center (MCC) bucket equipment (i.e., breakers and contactors) are wearing out quickly. Since the Northside Waste Water (NSWW) does not have the redundancy needed to allow the replacement of the entire MCC, each bucket must be replaced in special coordination with the operations team.

Project Alternatives

The only alternative is to do nothing. This places the entire North Side at risk of failure or necessary shut down. Equipment in this area can expose the entire station to reliability and compliance issues.

Technical Aspects

The MCC in the NSWW area controls power to the various motors and other heavy power users. It also handles the cleanup of water used in the power plant. Specifically, this project would replace breakers with equipment compatible with the MCC, most likely in a like-for-like replacement. The work required for this project would require coordination with operations as to when equipment could be removed from service for replacement.

Project Estimate Approach

Project costs are based on similar projects performed at the plant site.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617217	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617217	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	9,660	9,660	18,920	76,680	37,840	18,920	37,840	37,840	18,920	9,060	0	275,338
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	103	103	202	820	405	202	405	405	202	97	0	2,946
	926-A and G Loads	0	0	229	229	448	1,817	897	448	897	897	448	215	0	6,526
	928-AFUDC Debt Reg	0	0	8	23	46	122	213	259	306	367	414	439	0	2,196
	929-AFUDC - Equity Regular	0	0	10	30	60	160	279	340	401	482	544	576	0	2,881
	937-San Juan AR - Other	0	0	-4,130	-4,130	-8,088	-32,781	-16,177	-8,088	-16,177	-16,177	-8,088	-3,873	0	-117,709
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	5,880	5,916	11,588	46,817	23,457	12,081	23,671	23,814	12,440	6,513	0	172,178
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	-172,178	0	-172,178
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	-172,178	0	-172,178
	Proj Net	0	0	5,880	5,916	11,588	46,817	23,457	12,081	23,671	23,814	12,440	-165,664	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617217	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	275,338	0	0	0	0	0	0	0	0	0	0	0	0	275,338
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,946	0	0	0	0	0	0	0	0	0	0	0	0	2,946
	926-A and G Loads	6,526	0	0	0	0	0	0	0	0	0	0	0	0	6,526
	928-AFUDC Debt Reg	2,196	0	0	0	0	0	0	0	0	0	0	0	0	2,196
	929-AFUDC - Equity Regular	2,881	0	0	0	0	0	0	0	0	0	0	0	0	2,881
	937-San Juan AR - Other	-117,709	0	0	0	0	0	0	0	0	0	0	0	0	-117,709
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	172,178	0	0	0	0	0	0	0	0	0	0	0	0	172,178
	825-Clearings	-172,178	0	0	0	0	0	0	0	0	0	0	0	0	-172,178
	Clr Sum	-172,178	0	0	0	0	0	0	0	0	0	0	0	0	-172,178
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Company: 003-Bulk Power
Location: 766 San Juan

Construction Start Date

List Interim In-Service Dates

Project Need Justification

Project Alternatives

Technical Aspects

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617232	Year	2016	Jul	Aug	Sep	Oct	Nov	Dec	Total
Cost_Type	Bal 6/30/16									
110-Straight Time-General	17,459			0	0	0	0	0	0	17,459
120-Overtime-General	0			0	0	0	0	0	0	0
350-Material Issues-Major	36,553			0	0	0	0	0	0	36,553
370-Outside Services	5,914			0	27,550	27,550	28,350	28,350	29,000	146,714
374-Outside Svcs Legal	0			0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0
530-Employee Expense	2,823			0	0	0	0	0	0	2,823
610-Expenses - General	0			0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0
807-Non Refundable Contribution	0			0	0	0	0	0	0	0
829-Construction Adjustment	0			0	0	0	-517	-517	-41	-1,075
426-Capitalized Interest	0			0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0
909-Luna AR - Other	0			0	0	0	0	0	0	0
913-Payroll Taxes Load	1,481			0	0	0	0	0	0	1,481
914-Pension and Benefits Load	6,917			0	0	0	0	0	0	6,917
915-Injuries and Damages Load	569			0	0	0	0	0	0	569
918-San Juan AR-Labor	-15,575			0	0	0	0	0	0	-15,575
921-Stores / Purchasing Load	544			0	0	0	0	0	0	544
922-Minor Material Load	0			0	0	0	0	0	0	0
925-E and S Loads	928			0	295	295	303	303	310	2,434
926-A and G Loads	2,771			0	653	653	672	672	687	6,108
928-AFUDC Debt Reg	3,200			152	171	210	248	287	20	4,288
929-AFUDC - Equity Regular	4,070			164	185	227	269	311	21	5,248
937-San Juan AR - Other	-54,004			0	-11,778	-11,778	-12,120	-12,120	-12,398	-114,197
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0
Cost Sum	13,650			316	17,076	17,157	17,205	17,286	17,600	100,290
825-Clearings	0			0	0	0	0	-136,294	-17,600	-153,894
Clr Sum	0			0	0	0	0	-136,294	-17,600	-153,894
Proj Net	13,650			316	17,076	17,157	17,205	-119,008	0	-53,604

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617232	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	17,459	0	0	0	0	0	0	0	0	0	0	0	0	17,459
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	36,553	0	0	0	0	0	0	0	0	0	0	0	0	36,553
	370-Outside Services	146,714	0	0	0	0	0	0	0	0	0	0	0	0	146,714
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391~Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	2,823	0	0	0	0	0	0	0	0	0	0	0	0	2,823
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable	Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-1,075	0	0	0	0	0	0	0	0	0	0	0	0	-1,075
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,481	0	0	0	0	0	0	0	0	0	0	0	0	1,481
	914-Pension and Benefits Load	6,917	0	0	0	0	0	0	0	0	0	0	0	0	6,917
	915-Injuries and Damages Load	569	0	0	0	0	0	0	0	0	0	0	0	0	569
	918-San Juan AR-Labor	-15,575	0	0	0	0	0	0	0	0	0	0	0	0	-15,575
	921-Stores / Purchasing Load	544	0	0	0	0	0	0	0	0	0	0	0	0	544
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,434	0	0	0	0	0	0	0	0	0	0	0	0	2,434
	926-A and G Loads	6,108	0	0	0	0	0	0	0	0	0	0	0	0	6,108
	928-AFUDC Debt Reg	4,288	0	0	0	0	0	0	0	0	0	0	0	0	4,288
	929-AFUDC - Equity Regular	5,248	0	0	0	0	0	0	0	0	0	0	0	0	5,248
	937-San Juan AR - Other	-114,197	0	0	0	0	0	0	0	0	0	0	0	0	-114,197
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	100,290	0	0	0	0	0	0	0	0	0	0	0	0	100,290
	825-Clearings	-153,894	0	0	0	0	0	0	0	0	0	0	0	0	-153,894
	Clr Sum	-153,894	0	0	0	0	0	0	0	0	0	0	0	0	-153,894
Proj Net		-53,604	0	0	0	0	0	0	0	0	0	0	0	0	-53,604

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617232	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	17,459	0	0	0	0	0	0	0	0	0	0	0	0	17,459
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	36,553	0	0	0	0	0	0	0	0	0	0	0	0	36,553
	370-Outside Services	146,714	0	0	0	0	0	0	0	0	0	0	0	0	146,714
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	2,823	0	0	0	0	0	0	0	0	0	0	0	0	2,823
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable	Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-1,075	0	0	0	0	0	0	0	0	0	0	0	0	-1,075
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,481	0	0	0	0	0	0	0	0	0	0	0	0	1,481
	914-Pension and Benefits Load	6,917	0	0	0	0	0	0	0	0	0	0	0	0	6,917
	915-Injuries and Damages Load	569	0	0	0	0	0	0	0	0	0	0	0	0	569
	918-San Juan AR-Labor	-15,575	0	0	0	0	0	0	0	0	0	0	0	0	-15,575
	921-Stores / Purchasing Load	544	0	0	0	0	0	0	0	0	0	0	0	0	544
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,434	0	0	0	0	0	0	0	0	0	0	0	0	2,434
	926-A and G Loads	6,108	0	0	0	0	0	0	0	0	0	0	0	0	6,108
	928-AFUDC Debt Reg	4,288	0	0	0	0	0	0	0	0	0	0	0	0	4,288
	929-AFUDC - Equity Regular	5,248	0	0	0	0	0	0	0	0	0	0	0	0	5,248
	937-San Juan AR - Other	-114,197	0	0	0	0	0	0	0	0	0	0	0	0	-114,197
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	100,290	0	0	0	0	0	0	0	0	0	0	0	0	100,290
	825-Clearings	-153,894	0	0	0	0	0	0	0	0	0	0	0	0	-153,894
	Clr Sum	-153,894	0	0	0	0	0	0	0	0	0	0	0	0	-153,894
Proj Net		-53,604	0	0	0	0	0	0	0	0	0	0	0	0	-53,604

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Project No: 76617432 Common Raw Water Reservoir Slurry Wall

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date Estimated Completion Date 11/30/2015

List Interim In-Service Dates

This project will be in service by December 31, 2015.

Project Need Justification

A Consent Decree has been issued to settle a lawsuit between PNM and the Sierra Club. This court order dictates improvements PNM shall implement to capture and treat ground water that flows under the San Juan Generating Station property.

Project Alternatives

There are no alternatives. All aspects of the project are subject to the terms of the Consent Decree.

Technical Aspects

The raw water reservoir slurry is a simple well pump that discharges back into the plant reservoir.

Project Estimate Approach

N/A

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617432	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	32,651			0	0	0	0	0	0	32,651		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	307,916			0	0	0	0	0	0	307,916		
370-Outside Services	34,815			0	0	0	0	0	0	34,815		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	6			0	0	0	0	0	0	6		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	2,558			0	0	0	0	0	0	2,558		
914-Pension and Benefits Load	12,205			0	0	0	0	0	0	12,205		
915-Injuries and Damages Load	1,054			0	0	0	0	0	0	1,054		
918-San Juan AR-Labor	-28,592			0	0	0	0	0	0	-28,592		
921-Stores / Purchasing Load	2,301			0	0	0	0	0	0	2,301		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	956			0	0	0	0	0	0	956		
926-A and G Loads	9,045			0	0	0	0	0	0	9,045		
928-AFUDC Debt Reg	14,703			0	0	0	0	0	0	14,703		
929-AFUDC - Equity Regular	20,274			0	0	0	0	0	0	20,274		
937-San Juan AR - Other	-189,017			0	0	0	0	0	0	-189,017		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	220,874			0	0	0	0	0	0	220,874		
825-Clearings	0			0	0	0	0	0	-225,870	-225,870		
Clr Sum	0			0	0	0	0	0	-225,870	-225,870		
Proj Net	220,874			0	0	0	0	0	-225,870	-4,996		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617432	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	32,651	0	0	0	0	0	0	0	0	0	0	0	0	32,651
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	307,916	0	0	0	0	0	0	0	0	0	0	0	0	307,916
	370-Outside Services	34,815	0	0	0	0	0	0	0	0	0	0	0	0	34,815
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	6	0	0	0	0	0	0	0	0	0	0	0	0	6
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	2,558	0	0	0	0	0	0	0	0	0	0	0	0	2,558
	914-Pension and Benefits Load	12,205	0	0	0	0	0	0	0	0	0	0	0	0	12,205
	915-Injuries and Damages Load	1,054	0	0	0	0	0	0	0	0	0	0	0	0	1,054
	918-San Juan AR-Labor	-28,592	0	0	0	0	0	0	0	0	0	0	0	0	-28,592
	921-Stores / Purchasing Load	2,301	0	0	0	0	0	0	0	0	0	0	0	0	2,301
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	956	0	0	0	0	0	0	0	0	0	0	0	0	956
	926-A and G Loads	9,045	0	0	0	0	0	0	0	0	0	0	0	0	9,045
	928-AFUDC Debt Reg	14,703	0	0	0	0	0	0	0	0	0	0	0	0	14,703
	929-AFUDC - Equity Regular	20,274	0	0	0	0	0	0	0	0	0	0	0	0	20,274
	937-San Juan AR - Other	-189,017	0	0	0	0	0	0	0	0	0	0	0	0	-189,017
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	220,874	0	0	0	0	0	0	0	0	0	0	0	0	220,874
	825-Clearings	-225,870	0	0	0	0	0	0	0	0	0	0	0	0	-225,870
	Clr Sum	-225,870	0	0	0	0	0	0	0	0	0	0	0	0	-225,870
	Proj Net	-4,996	0	0	0	0	0	0	0	0	0	0	0	0	-4,996

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617432	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	32,651	0	0	0	0	0	0	0	0	0	0	0	0	32,651
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	307,916	0	0	0	0	0	0	0	0	0	0	0	0	307,916
	370-Outside Services	34,815	0	0	0	0	0	0	0	0	0	0	0	0	34,815
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	6	0	0	0	0	0	0	0	0	0	0	0	0	6
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	2,558	0	0	0	0	0	0	0	0	0	0	0	0	2,558
	914-Pension and Benefits Load	12,205	0	0	0	0	0	0	0	0	0	0	0	0	12,205
	915-Injuries and Damages Load	1,054	0	0	0	0	0	0	0	0	0	0	0	0	1,054
	918-San Juan AR-Labor	-28,592	0	0	0	0	0	0	0	0	0	0	0	0	-28,592
	921-Stores / Purchasing Load	2,301	0	0	0	0	0	0	0	0	0	0	0	0	2,301
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	956	0	0	0	0	0	0	0	0	0	0	0	0	956
	926-A and G Loads	9,045	0	0	0	0	0	0	0	0	0	0	0	0	9,045
	928-AFUDC Debt Reg	14,703	0	0	0	0	0	0	0	0	0	0	0	0	14,703
	929-AFUDC - Equity Regular	20,274	0	0	0	0	0	0	0	0	0	0	0	0	20,274
	937-San Juan AR - Other	-189,017	0	0	0	0	0	0	0	0	0	0	0	0	-189,017
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	220,874	0	0	0	0	0	0	0	0	0	0	0	0	220,874
	825-Clearings	-225,870	0	0	0	0	0	0	0	0	0	0	0	0	-225,870
	Clr Sum	-225,870	0	0	0	0	0	0	0	0	0	0	0	0	-225,870
	Proj Net	-4,996	0	0	0	0	0	0	0	0	0	0	0	0	-4,996

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Project No: 76617517 Common Joint Control Room - 2018

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

<u>Construction Start Date</u>	2/1/2017	<u>Estimated Completion Date</u>	7/31/2018
<u>List Interim In-Service Dates</u>	N/A		

Project Need Justification

This project is to design and implement a new joint control room to allow all operations control to be in one location. This project will build out an existing area to accommodate our control operation needs post 2017. This is necessary consolidate critical controls in one location to facilitate better communication within operations and to reduce the number of operators required for any given shift.

Project Alternatives

The first alternative of this project would be to continue operating with four separate controls areas rather than just the one, with the adverse effects mentioned above. The second alternative would be to construct a new building and infrastructure for a new control room, which would be the highest cost option. After evaluating these two alternatives, installation of a new control room within the current building infrastructure is the recommended option.

Technical Aspects

Work will include a remodeled room so that control for all units can be conducted in one area. Computer style sub-flooring will be installed to accommodate cable runs from other control areas in the plant to this joint control room. Operator control furniture and control displays will be relocated to this area as well. Other items such as displays, switches, and alarm panels will be installed as required. A separate area would be built with a distinct identification for lockout/tagout, printing and personnel breaks.

Project Estimate Approach

Estimates are based on the projected work scope to make the area suitable for operating the power plant. Costs for the project have come from various equipment suppliers and from an installation contractor.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617517	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617517	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617517	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	150,000	150,000	150,000	100,000	35,000	34,000	0	0	0	0	0	619,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	1,605	1,605	1,605	1,070	375	364	0	0	0	0	0	6,623	
926-A and G Loads	0	0	3,555	3,555	3,555	2,370	830	806	0	0	0	0	0	14,670	
928-AFUDC Debt Reg	0	0	134	404	675	902	1,028	1,094	0	0	0	0	0	4,237	
929-AFUDC - Equity Regular	0	0	121	364	608	813	926	987	0	0	0	0	0	3,820	
937-San Juan AR - Other	0	0	-52,221	-52,221	-52,221	-34,814	-12,185	-11,837	0	0	0	0	0	-215,497	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	103,195	103,707	104,222	70,342	25,973	25,414	0	0	0	0	0	432,853	
825-Clearings	0	0	0	0	0	0	0	-432,853	0	0	0	0	0	-432,853	
Clr Sum	0	0	0	0	0	0	0	-432,853	0	0	0	0	0	-432,853	
Proj Net	0	0	103,195	103,707	104,222	70,342	25,973	-407,439	0	0	0	0	0	0	

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Project No: 76617617 Common Pond 3 Transfer Line - 2017

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 1/15/2017 Estimated Completion Date 11/30/2018

List Interim In-Service Dates
N/A

Project Need Justification

All water for processing at the facility is transferred to station pond three which then pumps the water to the brine concentrators (BC) for processing. This line is the original line installed and has had several leaks. If this line were to fail and be placed out of service, the BC's must also be removed from service. This would result in a shortage of clean water for the boilers in storage and cause the ponds fill with unprocessed water.

Project Alternatives

Performing temporary repairs was the only other alternative to this project. However, temporary repairs have already been attempted with clamps an blocking, but deterioration has reached the point where these patches no long work. There are no other alternatives other than the installation of a new line.

Technical Aspects

Project would trench and route a new line with proper blocking for thrust and expansion. The engineering design is complete and ready for bid.

Project Estimate Approach

After scoping was completed for this project, cost estimates were completed based on past bids received from contractors for projects of a similar scope.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617617	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project 76617617	Year	2017													
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617617	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	9,700	0	23,500	96,000	0	0	81,000	193,000	287,000	94,000	0	784,200	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	104	0	251	1,027	0	0	867	2,065	3,071	1,006	0	8,391	
926-A and G Loads	0	0	230	0	557	2,275	0	0	1,920	4,574	6,802	2,228	0	18,586	
928-AFUDC Debt Reg	0	0	9	17	39	146	233	234	307	555	987	1,334	0	3,860	
929-AFUDC - Equity Regular	0	0	8	16	35	131	210	211	277	500	890	1,202	0	3,480	
937-San Juan AR - Other	0	0	-3,377	0	-8,181	-33,421	0	0	-28,199	-67,191	-99,916	-32,725	0	-273,010	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	6,673	33	16,201	66,159	442	444	56,172	133,503	198,835	67,045	0	545,507	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	-545,507	0	-545,507	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	-545,507	0	-545,507	
Proj Net	0	0	6,673	33	16,201	66,159	442	444	56,172	133,503	198,835	-478,462	0	0	

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Project No: 76617717 Common Coal System PLC Conversion - 2017

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

<u>Construction Start Date</u>	1/15/2017	<u>Estimated Completion Date</u>	6/30/2017
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

Coal system operations are currently handled by a third-party contractor, while controls for the system overall are operated by PNM's main Foxboro distributed control system (DCS). Recently, the contractor has recommended PNM convert the system to a programmable logic controller (PLC) based system to decrease maintenance and increase troubleshooting capabilities for their employees. Information would still be provided for information storage (PI) system through interfaces.

Project Alternatives

There are no other alternatives.

Technical Aspects

The coal control system controls the flow of coal from the coal yard to the coal storage bunkers in the power plant. PLC's would be programmed and reviewed by the contractor and further reviewed by staff controls engineers to ensure the proper operation of the coal system, interface of information to the PI system, and North American Electric Reliability Corporation (NERC) Critical Infrastructure Plan (CIP) compliance. The work will be completed after this review, including the termination of wiring and instrumentation and commissioning of the system.

Project Estimate Approach

The estimate provided by contractor includes the PLC equipment, configuration of the PLC, cabling and terminations as needed, repair or replacement of faulty field devices, system startup, and project close out (which includes commissioning and drawing updates).

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617717	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617717	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	9,800	19,000	77,000	77,000	86,000	18,600	0	0	0	0	0	0	287,400
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	105	203	824	824	920	199	0	0	0	0	0	0	3,075
	926-A and G Loads	0	232	450	1,825	1,825	2,038	441	0	0	0	0	0	0	6,811
	928-AFUDC Debt Reg	0	8	31	107	229	359	444	0	0	0	0	0	0	1,178
929-AFUDC - Equity Regular		0	10	40	140	301	471	583	0	0	0	0	0	0	1,545
	937-San Juan AR - Other	0	-4,190	-8,123	-32,918	-32,918	-36,766	-7,952	0	0	0	0	0	0	-122,866
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	5,965	11,602	46,977	47,260	53,024	12,315	0	0	0	0	0	0	177,144
	825-Clearings	0	0	0	0	0	0	-177,144	0	0	0	0	0	0	-177,144
	Clr Sum	0	0	0	0	0	0	-177,144	0	0	0	0	0	0	-177,144
Proj Net		0	5,965	11,602	46,977	47,260	53,024	-164,829	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617717	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	287,400	0	0	0	0	0	0	0	0	0	0	0	0	287,400
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,075	0	0	0	0	0	0	0	0	0	0	0	0	3,075
	926-A and G Loads	6,811	0	0	0	0	0	0	0	0	0	0	0	0	6,811
	928-AFUDC Debt Reg	1,178	0	0	0	0	0	0	0	0	0	0	0	0	1,178
929-AFUDC - Equity Regular		1,545	0	0	0	0	0	0	0	0	0	0	0	0	1,545
	937-San Juan AR - Other	-122,866	0	0	0	0	0	0	0	0	0	0	0	0	-122,866
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	177,144	0	0	0	0	0	0	0	0	0	0	0	0	177,144
	825-Clearings	-177,144	0	0	0	0	0	0	0	0	0	0	0	0	-177,144
	Clr Sum	-177,144	0	0	0	0	0	0	0	0	0	0	0	0	-177,144
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 76617817 Common North Side Wastewater Switchgear Automatic Transfer -2017

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 1/15/2017 Estimated Completion Date 11/30/2019

List Interim In-Service Dates
0

Project Need Justification

The Northside Waste Water (NSWW) system is used to clean water used throughout the power plant. Currently there are two power feeds to the NSWW area. These two power feeds come to a selector switch, which makes it necessary to manually change the switch position to an optimal power feed. This causes a "break-before-make" situation. During the brief time when the switch is being moved from a failed to an optimal power feed, all power to the equipment in NSWW area is lost. This results in critical equipment needing a restart after the switch is complete. This project would install an automatic transfer switch to allow for the direct transfer of power feeds without the bus losing power. This would increase reliability, decrease the risk to equipment, and eliminate costs associated with rebuilding the water cleaning tank.

Project Alternatives

The alternative would be to split the feeds into multiple systems, which is the highest cost option and would result in lost redundancy.

Technical Aspects

Work will involve an engineering review of the feeds and the purchase of a compatible switch to handle the load properly. The area would be isolated for installation and testing before the equipment is commissioned.

Project Estimate Approach

Project estimates are based on similar projects within the generation block.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617817	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617817	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617817	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	47,000	87,000	47,000	10,300	0	0	0	0	0	0	0	191,300	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	503	931	503	110	0	0	0	0	0	0	0	2,047	
926-A and G Loads	0	0	1,114	2,062	1,114	244	0	0	0	0	0	0	0	4,534	
928-AFUDC Debt Reg	0	0	42	162	283	336	0	0	0	0	0	0	0	824	
929-AFUDC - Equity Regular	0	0	38	146	255	303	0	0	0	0	0	0	0	743	
937-San Juan AR - Other	0	0	-16,362	-30,288	-16,362	-3,586	0	0	0	0	0	0	0	-66,599	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	32,334	60,014	32,793	7,707	0	0	0	0	0	0	0	132,848	
825-Clearings	0	0	0	0	0	-132,848	0	0	0	0	0	0	0	-132,848	
Clr Sum	0	0	0	0	0	-132,848	0	0	0	0	0	0	0	-132,848	
Proj Net	0	0	32,334	60,014	32,793	-125,141	0	0	0	0	0	0	0	0	

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Project No: 76617917 Common Filtrate Transfer Line Replacement - 2017

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

<u>Construction Start Date</u>	1/15/2017	<u>Estimated Completion Date</u>	8/31/2017
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

Gypsum is a byproduct of the SO2 removal process in the power plant absorbers. Gypsum in the form of a filtrate slurry is pumped from the absorber area to tanks at the North Side Waste Water (NSWW) where it is dried by vacuum filters. As the slurry is dewatered the water is pumped to a transfer tank to be pumped to the filtrate tank, then back to the absorber cells. In this process over the years piping has failed and has not been replaced as it was no longer needed because of the way the plant was operated. This water from the failed pipes then flows into area drains then to the process ponds. This has been an acceptable practice until the installation of the Selective Non-Catalytic Reduction (SNCR) units were installed which use ammonia to reduce nitrogen oxides in the boiler flue gas. These ammonia concentrations carry over into the absorbers and began to affect the demineralizers which are used to clean up the power plant waste water. This project will replace the failed line to put the system back in proper service.

Project Alternatives

Other than doing nothing and absorbing the costs associated with reliability, another option would be to use existing pump water to the limestone slurry feed take, but this would dilute the limestone solution and effect removal. It is recommended to install the line as recommended to separate the process.

Technical Aspects

Water has many uses in the power plant. One use is to dilute the lime slurry used the power plant absorbers to eliminate sulfur dioxide in the boiler flue gas. This water eventually needs to be cleaned up for reuse in the power plant. In San Juan's case this is the function of the NSWW area. Over the years piping in this area has failed and has not been repair back to original condition. Other than some leakage this has not affected the operation of the power plant. With the installation of SNCRs this all changed. Carryover ammonia which is used in the SNCRs to reduce nitrogen oxidized in the boiler flue started to get into the water cleanup system causing water to be not cleaned properly.

Project Estimate Approach

Estimate based on similar piping replacement projects.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76617917	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76617917	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	9,750	0	29,250	87,750	77,000	37,000	24,000	0	0	0	0	264,750	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	104	0	313	939	824	396	257	0	0	0	0	2,833	
926-A and G Loads	0	0	231	0	693	2,080	1,825	877	569	0	0	0	0	6,275	
928-AFUDC Debt Reg	0	0	8	15	39	131	263	354	405	0	0	0	0	1,215	
929-AFUDC - Equity Regular	0	0	10	20	51	172	344	465	531	0	0	0	0	1,594	
937-San Juan AR - Other	0	0	-4,168	0	-12,505	-37,514	-32,918	-15,818	-10,260	0	0	0	0	-113,183	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	5,935	36	17,841	53,559	47,338	23,274	15,501	0	0	0	0	163,484	
825-Clearings	0	0	0	0	0	0	0	0	-163,484	0	0	0	0	-163,484	
Clr Sum	0	0	0	0	0	0	0	0	-163,484	0	0	0	0	-163,484	
Proj Net	0	0	5,935	36	17,841	53,559	47,338	23,274	-147,983	0	0	0	0	0	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76617917	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	264,750	0	0	0	0	0	0	0	0	0	0	0	0	264,750
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,833	0	0	0	0	0	0	0	0	0	0	0	0	2,833
	926-A and G Loads	6,275	0	0	0	0	0	0	0	0	0	0	0	0	6,275
	928-AFUDC Debt Reg	1,215	0	0	0	0	0	0	0	0	0	0	0	0	1,215
929-AFUDC - Equity Regular		1,594	0	0	0	0	0	0	0	0	0	0	0	0	1,594
	937-San Juan AR - Other	-113,183	0	0	0	0	0	0	0	0	0	0	0	0	-113,183
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	163,484	0	0	0	0	0	0	0	0	0	0	0	0	163,484
	825-Clearings	-163,484	0	0	0	0	0	0	0	0	0	0	0	0	-163,484
	Clr Sum	-163,484	0	0	0	0	0	0	0	0	0	0	0	0	-163,484
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 76628016 Common Warehouse Material Control System - Carryover -2017

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

Construction Start Date 3/1/2016 Estimated Completion Date 3/31/2017

List Interim In-Service Dates

0

Project Need Justification

This project is a carryover project currently in progress. For efficient use of indoor storage area, material has been placed on very tall shelving in the warehouse, which must be retrieved with use of robot systems. The track the robots use and their wheels have worn, causing the robots to veer off track or become unresponsive to commands. Also, the firm that designed the systems for the robots has gone out of business, and support for the existing computer controls is now minimal.

Project Alternatives

Alternatives for mechanical fixes were considered, including as-needed repair of the wheels and rails, but this would only be a temporary fix. Alternatives for the computer controls system included using smaller, cheaper computer firms, but they usually lack the experience and the ability to fully solve both the software and robot communication system problems. The decision was made to install new rails and wheels on the robots and to retain a reputable company that designs robot systems as a large part of their business.

Technical Aspects

This project will replace the rails and wheels for the robots and also replace the computer control system to ensure proper function and support.

Project Estimate Approach

This project was awarded based on a competitive bidding process. Prior to bidding, the project was developed using indicative pricing from various vendors.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76628016	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			4,000	4,000	4,000	4,000	4,000	4,000	24,000		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	43,000	43,000		
370-Outside Services	193,408			3,100	134,826	28,310	53,521	3,500	319,017	735,682		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	2,144	4,287	0	0	6,431		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	957			0	0	0	0	0	0	957		
610-Expenses - General	0			1,500	2,600	5,654	8,708	2,600	1,500	22,562		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-1,034	-452	-467	-1,953		
426-Capitalized Interest	0			484	696	878	1,036	452	956	4,502		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			269	269	269	269	269	269	1,615		
914-Pension and Benefits Load	0			1,270	1,270	1,270	1,270	1,270	1,270	7,620		
915-Injuries and Damages Load	0			128	128	128	128	128	128	768		
918-San Juan AR-Labor	0			-2,342	-2,342	-2,342	-2,342	-2,342	-2,342	-14,053		
921-Stores / Purchasing Load	1,199			0	0	0	0	0	3,062	4,261		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	3,700			110	1,531	447	772	126	3,950	10,637		
926-A and G Loads	4,615			204	3,352	951	1,671	239	8,710	19,742		
928-AFUDC Debt Reg	172			0	0	0	0	0	0	172		
929-AFUDC - Equity Regular	73			0	0	0	0	0	0	73		
937-San Juan AR - Other	-100,569			-2,031	-58,815	-15,500	-28,500	-2,672	-156,736	-364,823		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	103,555			6,692	87,515	26,207	43,787	7,117	226,318	501,191		
825-Clearings	0			0	0	0	-161,236	0	0	-161,236		
Clr Sum	0			0	0	0	-161,236	0	0	-161,236		
Proj Net	103,555			6,692	87,515	26,207	-117,450	7,117	226,318	339,955		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76628016	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	24,000	2,000	3,000	2,000	0	0	0	0	0	0	0	0	0	31,000	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	43,000	0	0	0	0	0	0	0	0	0	0	0	0	43,000	
370-Outside Services	735,682	2,000	3,000	2,000	0	0	0	0	0	0	0	0	0	742,682	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	6,431	0	0	0	0	0	0	0	0	0	0	0	0	6,431	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	957	0	0	0	0	0	0	0	0	0	0	0	0	957	
610-Expenses - General	22,562	1,000	1,000	1,000	0	0	0	0	0	0	0	0	0	25,562	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	-1,953	-472	-428	0	0	0	0	0	0	0	0	0	0	-2,853	
426-Capitalized Interest	4,502	1,457	1,339	1,509	0	0	0	0	0	0	0	0	0	8,807	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	1,615	138	207	138	0	0	0	0	0	0	0	0	0	2,098	
914-Pension and Benefits Load	7,620	632	949	632	0	0	0	0	0	0	0	0	0	9,833	
915-Injuries and Damages Load	768	45	68	45	0	0	0	0	0	0	0	0	0	926	
918-San Juan AR-Labor	-14,053	-1,163	-1,745	-1,163	0	0	0	0	0	0	0	0	0	-18,125	
921-Stores / Purchasing Load	4,261	0	0	0	0	0	0	0	0	0	0	0	0	4,261	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	10,637	62	88	62	0	0	0	0	0	0	0	0	0	10,849	
926-A and G Loads	19,742	119	166	119	0	0	0	0	0	0	0	0	0	20,145	
928-AFUDC Debt Reg	172	0	0	0	0	0	0	0	0	0	0	0	0	172	
929-AFUDC - Equity Regular	73	0	0	0	0	0	0	0	0	0	0	0	0	73	
937-San Juan AR - Other	-364,823	-1,315	-1,758	-1,315	0	0	0	0	0	0	0	0	0	-369,211	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	501,191	4,503	5,885	5,027	0	0	0	0	0	0	0	0	0	516,605	
825-Clearings	-161,236	0	0	-356,340	0	0	0	0	0	0	0	0	0	-517,576	
Clr Sum	-161,236	0	0	-356,340	0	0	0	0	0	0	0	0	0	-517,576	
Proj Net	339,955	4,503	5,885	-351,313	0	0	0	0	0	0	0	0	0	-971	

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76628016	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	31,000	0	0	0	0	0	0	0	0	0	0	0	0	31,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	43,000	0	0	0	0	0	0	0	0	0	0	0	0	43,000
	370-Outside Services	742,682	0	0	0	0	0	0	0	0	0	0	0	0	742,682
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	6,431	0	0	0	0	0	0	0	0	0	0	0	0	6,431
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	957	0	0	0	0	0	0	0	0	0	0	0	0	957
	610-Expenses - General	25,562	0	0	0	0	0	0	0	0	0	0	0	0	25,562
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,853	0	0	0	0	0	0	0	0	0	0	0	0	-2,853
	426-Capitalized Interest	8,807	0	0	0	0	0	0	0	0	0	0	0	0	8,807
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	2,098	0	0	0	0	0	0	0	0	0	0	0	0	2,098
	914-Pension and Benefits Load	9,833	0	0	0	0	0	0	0	0	0	0	0	0	9,833
	915-Injuries and Damages Load	926	0	0	0	0	0	0	0	0	0	0	0	0	926
	918-San Juan AR-Labor	-18,125	0	0	0	0	0	0	0	0	0	0	0	0	-18,125
	921-Stores / Purchasing Load	4,261	0	0	0	0	0	0	0	0	0	0	0	0	4,261
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	10,849	0	0	0	0	0	0	0	0	0	0	0	0	10,849
	926-A and G Loads	20,145	0	0	0	0	0	0	0	0	0	0	0	0	20,145
	928-AFUDC Debt Reg	172	0	0	0	0	0	0	0	0	0	0	0	0	172
	929-AFUDC - Equity Regular	73	0	0	0	0	0	0	0	0	0	0	0	0	73
	937-San Juan AR - Other	-369,211	0	0	0	0	0	0	0	0	0	0	0	0	-369,211
	961-Luna A&G PNM D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	516,605	0	0	0	0	0	0	0	0	0	0	0	0	516,605
	825-Clearings	-517,576	0	0	0	0	0	0	0	0	0	0	0	0	-517,576
	Clr Sum	-517,576	0	0	0	0	0	0	0	0	0	0	0	0	-517,576
Proj Net		-971	0	0	0	0	0	0	0	0	0	0	0	0	-971

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Project No: 76628047 Common Foxboro I-A Version 8.8 Limestone-Coal NERC

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

<u>Construction Start Date</u>	10/1/2014	<u>Estimated Completion Date</u>	8/31/2016
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

As an owner and operator on the Bulk Electric System (BES), PNM is required to comply with applicable standards from NERC. The scope of this project is to replace the existing Foxboro I/A version 8.7 operating system for the Limestone/Coal Handling Distributed Control System (DCS) at San Juan with a supported Operating System (Foxboro I/A Version 8.8). This upgrade includes hardware to include server class machines and new Operator Human Machine Interfaces. The new control network software allows for adaptation of servers, switches and fiber. The virtual machines allows for a more robust setup for Operators and the DCS System. Foxboro Version 8.7 system support is ending. Without support, reliability issues, security, and other problems cannot be resolved. Version 8.8 of I/A is required to have a supported infrastructure, including but not limited to Operating Systems, software, and virtual infrastructure. Prior versions could no longer be patched and were vulnerable to problems that would not be resolved by the vendor. Additional benefits include faster throughput, with communication speeds of 1 Gb per second possible. There are point to point data routing allowing multiple communications to run simultaneously, greater reliability with alternate communications paths between all stations, and the “self-healing” design is utilized. The control network provides fast response to faults with redundancy at every level. There is increased distances supported which allows for better plant topology match. The upgraded software allows for standard fiber optic and switch technology (no proprietary cell busses, packaging or networks) to be utilized. Workstations are moved to reliable, server-class as well as multi-purpose workstations based on the latest technology. The multipurpose workstations provide a versatile and robust platform for human to machine interface, data acquisition, historian, engineering and configuration functions and applications. All workstations support annunciator keyboards and up to four monitors. The project will provide versatile workstations in general-purpose rack mounted configuration. Operator workstations will utilize thin-client technology and new wide aspect monitors, with redundant fiber Ethernet connections to the plant control network to support high availability communications. In summary, the project will provide better control through improved communications throughout the system, higher speed, and longer distances allowed for better match with plant topology. All the fiber networks eliminate electrical noise and grounding.

Project Alternatives

There are no viable alternatives to this project. The Distributed Control System (DCS) is a proprietary product. The Original Equipment Manufacturer (OEM) is discontinuing support for the version of software installed on the Unit 4 DCS. The software upgrade requires upgraded hardware (servers) to support the new software. Replacing the existing DCS with a system from another manufacturer is an option but the cost and time required to replace the DCS are prohibitive.

Technical Aspects

The scope of work includes upgrading the operating software to the latest release, replacing existing servers with “thin client” servers, replacing control room monitors and keyboards to devices that are compatible with the new servers. The project cost includes engineering, materials, internal labor, technical support, project management, general and administrative loads and AFUDC.

Project Estimate Approach

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76628047	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	7,845			0	0	0	0	0	0	7,845		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	235,763			57,250	17,750	0	0	0	0	310,763		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	13,285			0	0	0	0	0	0	13,285		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	608			0	0	0	0	0	0	608		
914-Pension and Benefits Load	2,745			0	0	0	0	0	0	2,745		
915-Injuries and Damages Load	443			0	0	0	0	0	0	443		
918-San Juan AR-Labor	-6,879			0	0	0	0	0	0	-6,879		
921-Stores / Purchasing Load	1,635			0	0	0	0	0	0	1,635		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	5,749			613	190	0	0	0	0	6,552		
926-A and G Loads	5,982			1,357	421	0	0	0	0	7,759		
928-AFUDC Debt Reg	524			0	0	0	0	0	0	524		
929-AFUDC - Equity Regular	762			0	0	0	0	0	0	762		
937-San Juan AR - Other	-118,921			-24,475	-7,588	0	0	0	0	-150,984		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	149,541			34,745	10,772	0	0	0	0	195,058		
825-Clearings	0			0	-203,839	0	0	0	0	-203,839		
Clr Sum	0			0	-203,839	0	0	0	0	-203,839		
Proj Net	149,541			34,745	-193,066	0	0	0	0	-8,780		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76628047	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,845	0	0	0	0	0	0	0	0	0	0	0	0	7,845
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	310,763	0	0	0	0	0	0	0	0	0	0	0	0	310,763
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	13,285	0	0	0	0	0	0	0	0	0	0	0	0	13,285
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	608	0	0	0	0	0	0	0	0	0	0	0	0	608
	914-Pension and Benefits Load	2,745	0	0	0	0	0	0	0	0	0	0	0	0	2,745
	915-Injuries and Damages Load	443	0	0	0	0	0	0	0	0	0	0	0	0	443
	918-San Juan AR-Labor	-6,879	0	0	0	0	0	0	0	0	0	0	0	0	-6,879
	921-Stores / Purchasing Load	1,635	0	0	0	0	0	0	0	0	0	0	0	0	1,635
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	6,552	0	0	0	0	0	0	0	0	0	0	0	0	6,552
	926-A and G Loads	7,759	0	0	0	0	0	0	0	0	0	0	0	0	7,759
	928-AFUDC Debt Reg	524	0	0	0	0	0	0	0	0	0	0	0	0	524
	929-AFUDC - Equity Regular	762	0	0	0	0	0	0	0	0	0	0	0	0	762
	937-San Juan AR - Other	-150,984	0	0	0	0	0	0	0	0	0	0	0	0	-150,984
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	195,058	0	0	0	0	0	0	0	0	0	0	0	0	195,058
	825-Clearings	-203,839	0	0	0	0	0	0	0	0	0	0	0	0	-203,839
	Clr Sum	-203,839	0	0	0	0	0	0	0	0	0	0	0	0	-203,839
	Proj Net	-8,780	0	0	0	0	0	0	0	0	0	0	0	0	-8,780

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76628047	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,845	0	0	0	0	0	0	0	0	0	0	0	0	7,845
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	310,763	0	0	0	0	0	0	0	0	0	0	0	0	310,763
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non	Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	13,285	0	0	0	0	0	0	0	0	0	0	0	0	13,285
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	608	0	0	0	0	0	0	0	0	0	0	0	0	608
	914-Pension and Benefits Load	2,745	0	0	0	0	0	0	0	0	0	0	0	0	2,745
	915-Injuries and Damages Load	443	0	0	0	0	0	0	0	0	0	0	0	0	443
	918-San Juan AR-Labor	-6,879	0	0	0	0	0	0	0	0	0	0	0	0	-6,879
	921-Stores / Purchasing Load	1,635	0	0	0	0	0	0	0	0	0	0	0	0	1,635
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	6,552	0	0	0	0	0	0	0	0	0	0	0	0	6,552
	926-A and G Loads	7,759	0	0	0	0	0	0	0	0	0	0	0	0	7,759
	928-AFUDC Debt Reg	524	0	0	0	0	0	0	0	0	0	0	0	0	524
	929-AFUDC - Equity Regular	762	0	0	0	0	0	0	0	0	0	0	0	0	762
	937-San Juan AR - Other	-150,984	0	0	0	0	0	0	0	0	0	0	0	0	-150,984
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	195,058	0	0	0	0	0	0	0	0	0	0	0	0	195,058
	825-Clearings	-203,839	0	0	0	0	0	0	0	0	0	0	0	0	-203,839
	Clr Sum	-203,839	0	0	0	0	0	0	0	0	0	0	0	0	-203,839
Proj Net		-8,780	0	0	0	0	0	0	0	0	0	0	0	0	-8,780

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Project No: 76641016 Common C&D Coal Reclaim Feeders Study

Company: 003-Bulk Power
Location: 766 San Juan

Project Information

<u>Construction Start Date</u>	1/15/2016	<u>Estimated Completion Date</u>	12/31/2016
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

Coal feeders move the coal from the reclaim area onto the main coal conveyor, where it is transported for further processing and deposited in coal storage bunkers. The coal feeder area is a difficult place to work because of coal particulate on the floors and in the air. This, coupled with intermittent water in the area has made this area very unsafe to work. Maintenance of the current system is also frequently required because of the amount of coal buildup around conveyors and its effect on reliability. This project will perform an Engineering study to determine the most cost effective method to make this area easier to work and to comply with Operational Safety and Health Administration (OSHA) combustible dust requirements.

Project Alternatives

There are no other alternatives. This study is necessary to ensure PNM performs the right activities to meet OSHA requirements when repairs are eventually made.

Technical Aspects

When the plant was built coal dust in the air did not have as stringent requirements as now. This area needs to have design updates to handle the dust and coal particulate pollution issues. This area is very important to the future of the operation of the coal plant.

Project Estimate Approach

Estimate is based on cost estimates for the study from engineering firms.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	76641016	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			49,000	49,000	94,000	145,000	26,000	9,800	372,800		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-738	-738	-738	-2,213		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			524	524	1,006	1,552	278	105	3,989		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			33	98	194	354	469	493	1,641		
929-AFUDC - Equity Regular	0			35	107	211	384	507	534	1,777		
937-San Juan AR - Other	0			-20,468	-20,468	-39,265	-60,568	-10,861	-4,094	-155,723		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			29,125	29,261	56,146	85,983	15,656	6,100	222,271		
825-Clearings	0			0	0	0	0	0	-222,271	-222,271		
Clr Sum	0			0	0	0	0	0	-222,271	-222,271		
Proj Net	0			29,125	29,261	56,146	85,983	15,656	-216,171	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	76641016	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	372,800	0	0	0	0	0	0	0	0	0	0	0	0	372,800
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,213	0	0	0	0	0	0	0	0	0	0	0	0	-2,213
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,989	0	0	0	0	0	0	0	0	0	0	0	0	3,989
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	1,641	0	0	0	0	0	0	0	0	0	0	0	0	1,641
	929-AFUDC - Equity Regular	1,777	0	0	0	0	0	0	0	0	0	0	0	0	1,777
	937-San Juan AR - Other	-155,723	0	0	0	0	0	0	0	0	0	0	0	0	-155,723
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	222,271	0	0	0	0	0	0	0	0	0	0	0	0	222,271
	825-Clearings	-222,271	0	0	0	0	0	0	0	0	0	0	0	0	-222,271
	Clr Sum	-222,271	0	0	0	0	0	0	0	0	0	0	0	0	-222,271
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	76641016	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	372,800	0	0	0	0	0	0	0	0	0	0	0	0	372,800
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,213	0	0	0	0	0	0	0	0	0	0	0	0	-2,213
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,989	0	0	0	0	0	0	0	0	0	0	0	0	3,989
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	1,641	0	0	0	0	0	0	0	0	0	0	0	0	1,641
	929-AFUDC - Equity Regular	1,777	0	0	0	0	0	0	0	0	0	0	0	0	1,777
	937-San Juan AR - Other	-155,723	0	0	0	0	0	0	0	0	0	0	0	0	-155,723
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	222,271	0	0	0	0	0	0	0	0	0	0	0	0	222,271
	825-Clearings	-222,271	0	0	0	0	0	0	0	0	0	0	0	0	-222,271
	Clr Sum	-222,271	0	0	0	0	0	0	0	0	0	0	0	0	-222,271
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 77021913 SJGS SNCR costs PNM Share

Company: 003-Bulk Power
Location: 770 San Juan

Project Information

Construction Start Date 11/1/2012 Estimated Completion Date 6/30/2016

List Interim In-Service Dates

Project Need Justification

The San Juan Selective non-catalytic reduction (SNCR) Project encompasses both the installation of SNCR on San Juan Units 1 and 4 as required by the Revised State Implementation Plan (SIP) as well as the conversion of these units to a balanced draft configuration. As these units have aged, and after experiencing numerous start-up cycles, the flue gas pressure boundary has deteriorated. This deterioration allows ash-laden flue gases and coal particles to escape from the boiler, flues, ducts, and other air or flue gas path components. Ash and coal that accumulates outside of the boiler pressure boundary pose various maintenance, health, and safety issues. The environmental regulators are aware of these issues and the resulting potential compliance issues related to particulate matter (PM) emissions under the U.S. National Ambient Air Quality Standards (NAAQS). For this reason, the New Mexico Environment Department (NMED), as part of an amendment to San Juan's New Source Review (NSR) permit, required that San Juan convert to a balanced draft configuration. Balanced draft will help ensure demonstrated compliance with the NAAQS and will result in a significant reduction in fugitive emissions which provides a myriad of operational benefits, including a cleaner workplace. This project will substantially reduce the escape of ash, coal particles, and ammonia. The SJGS SNCR costs PNM Share project captured costs directly associated with planning the SNCR and balanced draft technology project. These costs were accumulated in account 183000, Preliminary Surveys. PNM's share of these costs were transferred to capital.

Project Alternatives

Effective September 21, 2011 the United States Environmental Protection Agency ("EPA") adopted the Federal Implementation Plan ("FIP") establishing selective catalytic control ("SCR") technology as Best Available Retrofit Technology ("BART") for San Juan Generating Station ("SJGS") to meet the requirements of EPA's Regional Haze Rule under the Clean Air Act ("CAA"). Among other things, the FIP established a limit on nitrogen oxide ("NOx") emissions of no more than 0.05 lb. /MMBtu (pounds per million British Thermal Units) at each unit of SJGS. EPA determined that the NOx emissions limits can only be achieved by installing SCR. EPA required SJGS to meet this limit by September 21, 2016. 76 Fed. Reg. 52388-52389 (Aug. 22, 2011). New Mexico submitted a revised State Implementation Plan (RSIP) identifying a less expensive technology, Selective Non-Catalytic Reduction ("SNCR"), as BART for NOx emissions. 76 Fed. Reg. at 52394. Among other things, the RSIP sets out a process and timeline whereby BART compliance would be achieved by the retirement of SJGS Units 2 and 3 by December 31, 2017, with SNCR to be installed on Units 1 and 4 by January 31, 2016. The RSIP was submitted to EPA on October 7, 2013. The EPA determined that the RSIP was complete on December 17, 2013, and granted final approval on October 9, 2014. The RSIP for SJGS addresses the Regional Haze rule and

provides significant additional environmental benefits at a lower cost than the FIP including reductions associated with: • Nitrogen oxides, sulfur dioxide, particulate matter, carbon dioxide and mercury- approximately 50% • Water Consumption- about 53% • Coal Ash Generation- about 48% • Truck Traffic (hauling coal ash back to the mine) and Raw Material Deliveries and • Visible Plumes (reduces stacks from four to two) In addition, the RSIP plays a significant role in the state of New Mexico's compliance with the recently finalized Clean Power Plan under the Clean Air Act Section 111(d). In a September 2011 Title V permit application, after consultation with the NMED concerning San Juan's fugitive emissions, PNM made the commitment to convert to balanced draft when the boilers were upgraded to meet the Regional Haze Federal or State Implementation Plan. In a subsequent NSR permit modification issued by NMED in August 2012 that allowed the installation of either SCR under the federal plan or SNCR under that state plan, NMED required San Juan to install balanced draft.

Technical Aspects

SNCR is a post-combustion control technology for NOx emissions. In very general terms, SNCR uses an amine-based reagent (urea in San Juan's case) which is injected into the boiler and reacts with NOx to reduce it to molecular nitrogen (N2) and water. In order to inject the reagent, the boiler walls must be penetrated and lances must be installed for the delivery of the reagent into the heated boiler. PNM Witness J. Edward Cichanowicz provided a more detailed description of the installation of SNCR at San Juan and the processes that reduce the emission of NOx in NMPRC Case 13-00390-UT. Like many power plants of the same vintage, the San Juan boilers were originally designed with only forced draft ("F.D.") fans. These boilers and associated flues and ducts operate at positive pressure. As these units have aged, and after experiencing numerous start-up cycles, the flue gas pressure boundary has typically deteriorated. This deterioration allows ash-laden flue gases and coal particles to escape from the boiler, flues, ducts and other air or flue gas path components. Ash and coal that accumulates outside of the boiler pressure boundary pose various maintenance and health and safety issues. The environmental regulators are aware of these issues and the resulting potential compliance issues related to PM emissions under the NAAQS. For this reason, the NMED, as part of an amendment to San Juan's NSR permit, required that San Juan convert to a balanced draft configuration. Balanced draft is achieved by installing induced draft ("I.D.") fans to balance the pressure in the boilers, flues and ducts. This greatly lessens the escape of ash, coal particles and ammonia caused by the positive pressures created by the F.D. fans. Due to changes in operational pressures, other modifications, such as boiler stiffening, are also often necessary to convert to a balanced draft configuration. As stated above, balanced draft will help ensure demonstrated compliance with the NAAQS and result in a significant reduction in fugitive emissions which provides myriad operational benefits, including a cleaner workplace. On a related note, the chemical reaction associated with the operation of SNCR results in the generation of ammonia. The balanced draft conversion will mitigate workplace exposure to ammonia fumes caused by the SNCR process. In addition, PNM and the other San Juan owners are taking a long-range view for San Juan. Balanced draft is an essential element in any state-of-the-art coal power plant emission controls.

Project Estimate Approach

Original estimates were provided by Sargent & Lundy LLC, a leading engineering firm in the utility industry which has executed numerous projects of this nature. These costs are also reasonable as confirmed by Mr. J. Edward Cichanowicz in NMPRC Case No. 13-00390-UT. All equipment for the project is being provided under firm price contracts which have been fully executed. A proposal for construction services to install all equipment has been fully negotiated and is in the process of being executed by PNM and its contracting partner, Graycor Industrial Constructors. The value of the contract is \$27.3 million. Equipment contracts have a combined value of roughly \$25 million. The balance of the cost estimate includes engineering, construction management, project management, insurance, and general and administrative loads.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	77021913	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	143,386			0	0	0	0	0	0	143,386		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	893,513			0	0	0	0	0	0	893,513		
370-Outside Services	1,411,430			0	0	0	0	0	0	1,411,430		
374-Outside Svcs Legal	101,265			0	0	0	0	0	0	101,265		
377-Outside Services-Temp Labor	515			0	0	0	0	0	0	515		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	20,860			0	0	0	0	0	0	20,860		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	-18,891			0	0	0	0	0	0	-18,891		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	10,858			0	0	0	0	0	0	10,858		
914-Pension and Benefits Load	53,255			0	0	0	0	0	0	53,255		
915-Injuries and Damages Load	4,462			0	0	0	0	0	0	4,462		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	14,486			0	0	0	0	0	0	14,486		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	26,112			0	0	0	0	0	0	26,112		
928-AFUDC Debt Reg	196,928			0	0	0	0	0	0	196,928		
929-AFUDC - Equity Regular	260,175			0	0	0	0	0	0	260,175		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	3,118,353			0	0	0	0	0	0	3,118,353		
825-Clearings	-2,559,867			0	0	0	0	0	-596,134	-3,156,001		
Clr Sum	-2,559,867			0	0	0	0	0	-596,134	-3,156,001		
Proj Net	558,486			0	0	0	0	0	-596,134	-37,648		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	77021913	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	143,386	0	0	0	0	0	0	0	0	0	0	0	0	143,386
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	893,513	0	0	0	0	0	0	0	0	0	0	0	0	893,513
	370-Outside Services	1,411,430	0	0	0	0	0	0	0	0	0	0	0	0	1,411,430
	374-Outside Svcs Legal	101,265	0	0	0	0	0	0	0	0	0	0	0	0	101,265
	377-Outside Services-Temp Labor	515	0	0	0	0	0	0	0	0	0	0	0	0	515
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	20,860	0	0	0	0	0	0	0	0	0	0	0	0	20,860
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-18,891	0	0	0	0	0	0	0	0	0	0	0	0	-18,891
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	10,858	0	0	0	0	0	0	0	0	0	0	0	0	10,858
	914-Pension and Benefits Load	53,255	0	0	0	0	0	0	0	0	0	0	0	0	53,255
	915-Injuries and Damages Load	4,462	0	0	0	0	0	0	0	0	0	0	0	0	4,462
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	14,486	0	0	0	0	0	0	0	0	0	0	0	0	14,486
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	26,112	0	0	0	0	0	0	0	0	0	0	0	0	26,112
	928-AFUDC Debt Reg	196,928	0	0	0	0	0	0	0	0	0	0	0	0	196,928
	929-AFUDC - Equity Regular	260,175	0	0	0	0	0	0	0	0	0	0	0	0	260,175
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	3,118,353	0	0	0	0	0	0	0	0	0	0	0	0	3,118,353
	825-Clearings	-3,156,001	0	0	0	0	0	0	0	0	0	0	0	0	-3,156,001
	Clr Sum	-3,156,001	0	0	0	0	0	0	0	0	0	0	0	0	-3,156,001
Proj Net		-37,648	0	0	0	0	0	0	0	0	0	0	0	0	-37,648

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	77021913	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	143,386	0	0	0	0	0	0	0	0	0	0	0	0	143,386
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	893,513	0	0	0	0	0	0	0	0	0	0	0	0	893,513
	370-Outside Services	1,411,430	0	0	0	0	0	0	0	0	0	0	0	0	1,411,430
	374-Outside Svcs Legal	101,265	0	0	0	0	0	0	0	0	0	0	0	0	101,265
	377-Outside Services-Temp Labor	515	0	0	0	0	0	0	0	0	0	0	0	0	515
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	20,860	0	0	0	0	0	0	0	0	0	0	0	0	20,860
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-18,891	0	0	0	0	0	0	0	0	0	0	0	0	-18,891
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	10,858	0	0	0	0	0	0	0	0	0	0	0	0	10,858
	914-Pension and Benefits Load	53,255	0	0	0	0	0	0	0	0	0	0	0	0	53,255
	915-Injuries and Damages Load	4,462	0	0	0	0	0	0	0	0	0	0	0	0	4,462
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	14,486	0	0	0	0	0	0	0	0	0	0	0	0	14,486
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	26,112	0	0	0	0	0	0	0	0	0	0	0	0	26,112
	928-AFUDC Debt Reg	196,928	0	0	0	0	0	0	0	0	0	0	0	0	196,928
	929-AFUDC - Equity Regular	260,175	0	0	0	0	0	0	0	0	0	0	0	0	260,175
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	3,118,353	0	0	0	0	0	0	0	0	0	0	0	0	3,118,353
	825-Clearings	-3,156,001	0	0	0	0	0	0	0	0	0	0	0	0	-3,156,001
	Clr Sum	-3,156,001	0	0	0	0	0	0	0	0	0	0	0	0	-3,156,001
Proj Net		-37,648	0	0	0	0	0	0	0	0	0	0	0	0	-37,648

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Project No: 77916016 Switchyard Breaker - 17482 - 2016

Company: 003-Bulk Power
Location: 779 San Juan

Project Information

Construction Start Date 2/1/2016 Estimated Completion Date 11/30/2016

List Interim In-Service Dates

0

Project Need Justification

The switchyard breakers, like the 17482 breaker, are used to tie the plant units to the larger system grid. Unit 1's 17482 breaker ties the 345kV line to Bus #3. The 17482 breaker's compressor is an older ITE Corporation type and leaks sulfur hexafluoride gas. This project will replace the 17482 breaker to stop the leakage issue and improve equipment reliability.

Project Alternatives

The only alternative is to continue to use the existing breaker until it fails and replace it at that time. The disadvantages to doing this are possible damage to additional equipment and further safety hazards to personnel. In addition, this would cause a loss of power production during the time between failure and replacement.

Technical Aspects

Larger breakers replacements include planning and procurement activities, equipment isolations, removal and replacement activities, crane rental, and commissioning activities.

Project Estimate Approach

Estimate is based on other recent breakers replacements and installation of similar scope.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	77916016	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	576,750	0	576,750		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	41,065	0	41,065		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	6,171	0	6,171		
926-A and G Loads	0			0	0	0	0	13,669	0	13,669		
928-AFUDC Debt Reg	0			0	0	0	0	359	0	359		
929-AFUDC - Equity Regular	0			0	0	0	0	389	0	389		
937-San Juan AR - Other	0			0	0	0	0	-318,827	0	-318,827		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	319,576	0	319,576		
825-Clearings	0			0	0	0	0	-319,576	0	-319,576		
Clr Sum	0			0	0	0	0	-319,576	0	-319,576		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	77916016	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	576,750	0	0	0	0	0	0	0	0	0	0	0	0	576,750
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	41,065	0	0	0	0	0	0	0	0	0	0	0	0	41,065
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	6,171	0	0	0	0	0	0	0	0	0	0	0	0	6,171
	926-A and G Loads	13,669	0	0	0	0	0	0	0	0	0	0	0	0	13,669
	928-AFUDC Debt Reg	359	0	0	0	0	0	0	0	0	0	0	0	0	359
	929-AFUDC - Equity Regular	389	0	0	0	0	0	0	0	0	0	0	0	0	389
	937-San Juan AR - Other	-318,827	0	0	0	0	0	0	0	0	0	0	0	0	-318,827
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	319,576	0	0	0	0	0	0	0	0	0	0	0	0	319,576
	825-Clearings	-319,576	0	0	0	0	0	0	0	0	0	0	0	0	-319,576
	Clr Sum	-319,576	0	0	0	0	0	0	0	0	0	0	0	0	-319,576
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	77916016	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	576,750	0	0	0	0	0	0	0	0	0	0	0	0	576,750
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	41,065	0	0	0	0	0	0	0	0	0	0	0	0	41,065
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	6,171	0	0	0	0	0	0	0	0	0	0	0	0	6,171
	926-A and G Loads	13,669	0	0	0	0	0	0	0	0	0	0	0	0	13,669
	928-AFUDC Debt Reg	359	0	0	0	0	0	0	0	0	0	0	0	0	359
	929-AFUDC - Equity Regular	389	0	0	0	0	0	0	0	0	0	0	0	0	389
	937-San Juan AR - Other	-318,827	0	0	0	0	0	0	0	0	0	0	0	0	-318,827
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	319,576	0	0	0	0	0	0	0	0	0	0	0	0	319,576
	825-Clearings	-319,576	0	0	0	0	0	0	0	0	0	0	0	0	-319,576
	Clr Sum	-319,576	0	0	0	0	0	0	0	0	0	0	0	0	-319,576
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 77916018 Switchyard Relays and Meters - 2018

Company: 003-Bulk Power
Location: 779 San Juan

Project Information

Construction Start Date 1/15/2018 Estimated Completion Date 12/31/2018

List Interim In-Service Dates

0

Project Need Justification

As outlined in the North American Energy Reliability Corporation's Public Regulatory Commission Rule 005 (NERC PRC-005), it is required that PNM meet the goals set forth in relation to relay reliability and accuracy. This project is to replace relays and meters throughout the switchyard and meet this NERC requirement.

Project Alternatives

There are no other alternatives available for this project. Doing nothing would leave aging equipment in operation, reduce protection and accuracy, and place PNM at risk of receiving fines.

Technical Aspects

This project will involve the direct replacement, calibration, and documentation of the relays and meters as necessary. In addition, the relays will be programed and set based on coordination studies.

Project Estimate Approach

Project estimate is based on historical costs for similar projects.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	77916018	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	77916018	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	77916018	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	19,000	19,000	19,000	19,000	19,000	19,000	19,000	39,000	20,000	192,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	203	203	203	203	203	203	203	417	214	2,054	
926-A and G Loads	0	0	0	0	450	450	450	450	450	450	450	924	474	4,550	
928-AFUDC Debt Reg	0	0	0	0	13	39	64	90	117	143	169	209	250	1,094	
929-AFUDC - Equity Regular	0	0	0	0	12	35	58	81	105	129	152	189	225	986	
937-San Juan AR - Other	0	0	0	0	-9,827	-9,827	-9,827	-9,827	-9,827	-9,827	-9,827	-20,171	-10,344	-99,302	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	0	9,851	9,900	9,949	9,999	10,048	10,098	10,148	20,568	10,819	101,382	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-101,382	-101,382	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-101,382	-101,382	
Proj Net	0	0	0	0	9,851	9,900	9,949	9,999	10,048	10,098	10,148	20,568	-90,563	0	

Project No: 77916116 Switchyard Relays and Breakers - Switch 16383 - 2016

Company: 003-Bulk Power
Location: 779 San Juan

Project Information

<u>Construction Start Date</u>	3/1/2016	<u>Estimated Completion Date</u>	11/30/2016
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

The 16383 switch in the San Juan Switchyard is used to isolate the tie between Unit 1 and Bus 3. This switch has failed from frequent operation and cannot be operated. This project will install a new switch to make the system operational.

Project Alternatives

Because the switch has failed, there are no other alternatives. Repairs must be made to reopen the connection.

Technical Aspects

Activities included in switch 16383 replacement include procurement and planning activities, installation including PNM resources, rental equipment, minor material purchases, and commissioning activities.

Project Estimate Approach

Estimate is based on other recent switch purchases and installations.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	77916116	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	14,035			0	0	0	0	0	0	14,035		
120-Overtime-General	1,245			0	0	0	0	0	0	1,245		
350-Material Issues-Major	3,879			0	0	0	0	0	0	3,879		
370-Outside Services	99,188			44,750	0	52,367	107,234	51,415	0	354,954		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	3,075			0	0	0	0	0	0	3,075		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	137			0	0	0	0	0	0	137		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	1,169			0	0	0	0	0	0	1,169		
914-Pension and Benefits Load	5,016			0	0	0	0	0	0	5,016		
915-Injuries and Damages Load	556			0	0	0	0	0	0	556		
918-San Juan AR-Labor	-12,056			0	0	0	0	0	0	-12,056		
921-Stores / Purchasing Load	684			0	0	0	0	0	0	684		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	2,603			479	0	560	1,147	550	0	5,340		
926-A and G Loads	3,087			1,061	0	1,241	2,541	1,219	0	9,149		
928-AFUDC Debt Reg	770			0	0	0	0	0	0	770		
929-AFUDC - Equity Regular	425			0	0	0	0	0	0	425		
937-San Juan AR - Other	-60,409			-23,145	0	-27,084	-55,461	-26,592	0	-192,691		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	63,405			23,145	0	27,084	55,461	26,592	0	195,687		
825-Clearings	0			0	0	0	0	-205,942	0	-205,942		
Clr Sum	0			0	0	0	0	-205,942	0	-205,942		
Proj Net	63,405			23,145	0	27,084	55,461	-179,350	0	-10,255		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	77916116	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	14,035	0	0	0	0	0	0	0	0	0	0	0	0	14,035
	120-Overtime-General	1,245	0	0	0	0	0	0	0	0	0	0	0	0	1,245
	350-Material Issues-Major	3,879	0	0	0	0	0	0	0	0	0	0	0	0	3,879
	370-Outside Services	354,954	0	0	0	0	0	0	0	0	0	0	0	0	354,954
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	3,075	0	0	0	0	0	0	0	0	0	0	0	0	3,075
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	137	0	0	0	0	0	0	0	0	0	0	0	0	137
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,169	0	0	0	0	0	0	0	0	0	0	0	0	1,169
	914-Pension and Benefits Load	5,016	0	0	0	0	0	0	0	0	0	0	0	0	5,016
	915-Injuries and Damages Load	556	0	0	0	0	0	0	0	0	0	0	0	0	556
	918-San Juan AR-Labor	-12,056	0	0	0	0	0	0	0	0	0	0	0	0	-12,056
	921-Stores / Purchasing Load	684	0	0	0	0	0	0	0	0	0	0	0	0	684
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	5,340	0	0	0	0	0	0	0	0	0	0	0	0	5,340
	926-A and G Loads	9,149	0	0	0	0	0	0	0	0	0	0	0	0	9,149
	928-AFUDC Debt Reg	770	0	0	0	0	0	0	0	0	0	0	0	0	770
	929-AFUDC - Equity Regular	425	0	0	0	0	0	0	0	0	0	0	0	0	425
	937-San Juan AR - Other	-192,691	0	0	0	0	0	0	0	0	0	0	0	0	-192,691
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	195,687	0	0	0	0	0	0	0	0	0	0	0	0	195,687
	825-Clearings	-205,942	0	0	0	0	0	0	0	0	0	0	0	0	-205,942
	Clr Sum	-205,942	0	0	0	0	0	0	0	0	0	0	0	0	-205,942
Proj Net		-10,255	0	0	0	0	0	0	0	0	0	0	0	0	-10,255

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	77916116	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	14,035	0	0	0	0	0	0	0	0	0	0	0	0	14,035
	120-Overtime-General	1,245	0	0	0	0	0	0	0	0	0	0	0	0	1,245
	350-Material Issues-Major	3,879	0	0	0	0	0	0	0	0	0	0	0	0	3,879
	370-Outside Services	354,954	0	0	0	0	0	0	0	0	0	0	0	0	354,954
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	3,075	0	0	0	0	0	0	0	0	0	0	0	0	3,075
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	137	0	0	0	0	0	0	0	0	0	0	0	0	137
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,169	0	0	0	0	0	0	0	0	0	0	0	0	1,169
	914-Pension and Benefits Load	5,016	0	0	0	0	0	0	0	0	0	0	0	0	5,016
	915-Injuries and Damages Load	556	0	0	0	0	0	0	0	0	0	0	0	0	556
	918-San Juan AR-Labor	-12,056	0	0	0	0	0	0	0	0	0	0	0	0	-12,056
	921-Stores / Purchasing Load	684	0	0	0	0	0	0	0	0	0	0	0	0	684
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	5,340	0	0	0	0	0	0	0	0	0	0	0	0	5,340
	926-A and G Loads	9,149	0	0	0	0	0	0	0	0	0	0	0	0	9,149
	928-AFUDC Debt Reg	770	0	0	0	0	0	0	0	0	0	0	0	0	770
	929-AFUDC - Equity Regular	425	0	0	0	0	0	0	0	0	0	0	0	0	425
	937-San Juan AR - Other	-192,691	0	0	0	0	0	0	0	0	0	0	0	0	-192,691
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	195,687	0	0	0	0	0	0	0	0	0	0	0	0	195,687
	825-Clearings	-205,942	0	0	0	0	0	0	0	0	0	0	0	0	-205,942
	Clr Sum	-205,942	0	0	0	0	0	0	0	0	0	0	0	0	-205,942
Proj Net		-10,255	0	0	0	0	0	0	0	0	0	0	0	0	-10,255

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Project No: 77916117 Switchyard U1 GSU Transformer Bushings - 2018

Company: 003-Bulk Power
Location: 779 San Juan

Project Information

Construction Start Date 1/15/2017 Estimated Completion Date 5/31/2018

List Interim In-Service Dates

0

Project Need Justification

These bushings are "U" type bushings that have been prone to failure in the industry. The electrical engineering staff recommends replacement based on the design's known flaw. There is a higher risk of failure and collateral damage if this work is not completed and would result in significant generation lost from the station.

Project Alternatives

There are no other alternatives to this project. Not replacing the bushing will result in higher risk of failure for the unit.

Technical Aspects

The bushing would be replaced with ones of different physical properties but match the operational design criteria. This is an outage required task with bushing to be ordered in 2017. Work can only occur during an outage when the equipment can be isolated for an extended period of time.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	77916117	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	77916117	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	77916117	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	28,099	83,244	55,141	27,516	0	0	0	0	0	0	0	194,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	301	891	590	294	0	0	0	0	0	0	0	2,076	
926-A and G Loads	0	0	666	1,973	1,307	652	0	0	0	0	0	0	0	4,598	
928-AFUDC Debt Reg	0	0	19	94	188	245	0	0	0	0	0	0	0	546	
929-AFUDC - Equity Regular	0	0	17	85	170	221	0	0	0	0	0	0	0	493	
937-San Juan AR - Other	0	0	-14,533	-43,054	-28,519	-14,231	0	0	0	0	0	0	0	-100,337	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	14,569	43,233	28,877	14,697	0	0	0	0	0	0	0	101,376	
825-Clearings	0	0	0	0	0	-101,376	0	0	0	0	0	0	0	-101,376	
Clr Sum	0	0	0	0	0	-101,376	0	0	0	0	0	0	0	-101,376	
Proj Net	0	0	14,569	43,233	28,877	-86,679	0	0	0	0	0	0	0	0	

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Project No: 77916216 Transformer T1 Bushings - Carryover - 2017

Company: 003-Bulk Power
Location: 779 San Juan

Project Information

Construction Start Date 10/1/2016 Estimated Completion Date 6/30/2017

List Interim In-Service Dates

0

Project Need Justification

These bushings are "U" type bushings that based on experience across the industry are prone to failure. The electrical engineering staff recommends replacement of the "U" shaped bushings with those with a better design to reduce the risk of bushing failure and collateral damage that could result in significant loss of generation output at the station.

Project Alternatives

The alternative is to not replace the bushings. This course of action increases the risk of part failure and the associated risk of collateral damage that could impact generation output.

Technical Aspects

The current "U" shaped bushing would be replaced with a new bushing that meets the established design criteria. Replacing the bushings does not require an outage and is planned for completion in 2017.

Project Estimate Approach

Project is based on recent cost data for bushings and installation.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	77916216	Year	2016	Jul	Aug	Sep	Oct	Nov	Dec	Total
Cost_Type	Bal 6/30/16									
110-Straight Time-General	6,545			0	0	0	0	0	0	6,545
120-Overtime-General	3,584			0	0	0	0	0	0	3,584
350-Material Issues-Major	174,495			0	0	0	0	0	0	174,495
370-Outside Services	129,580			0	48,000	92,000	0	0	0	269,580
374-Outside Svcs Legal	0			0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0
610-Expenses - General	0			0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0
807-Non Refundable Contribution	0			0	0	0	0	0	0	0
829-Construction Adjustment	0			0	0	0	0	0	0	0
426-Capitalized Interest	0			0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0
909-Luna AR - Other	0			0	0	0	0	0	0	0
913-Payroll Taxes Load	747			0	0	0	0	0	0	747
914-Pension and Benefits Load	0			0	0	0	0	0	0	0
915-Injuries and Damages Load	355			0	0	0	0	0	0	355
918-San Juan AR-Labor	-6,103			0	0	0	0	0	0	-6,103
921-Stores / Purchasing Load	1,885			0	0	0	0	0	0	1,885
922-Minor Material Load	0			0	0	0	0	0	0	0
925-E and S Loads	6,012			0	514	984	0	0	0	7,510
926-A and G Loads	7,473			0	1,138	2,180	0	0	0	10,791
928-AFUDC Debt Reg	273			385	415	499	0	0	0	1,572
929-AFUDC - Equity Regular	115			417	449	540	0	0	0	1,522
937-San Juan AR - Other	-159,789			0	-24,826	-47,582	0	0	0	-232,197
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0
Cost Sum	165,173			802	25,690	48,621	0	0	0	240,286
825-Clearings	0			0	0	-246,036	0	0	0	-246,036
Clr Sum	0			0	0	-246,036	0	0	0	-246,036
Proj Net	165,173			802	25,690	-197,415	0	0	0	-5,750

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	77916216	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,545	0	0	0	0	0	0	0	0	0	0	0	0	6,545
	120-Overtime-General	3,584	0	0	0	0	0	0	0	0	0	0	0	0	3,584
	350-Material Issues-Major	174,495	0	0	0	0	0	0	0	0	0	0	0	0	174,495
	370-Outside Services	269,580	0	0	0	0	35,000	32,000	0	0	0	0	0	0	336,580
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	747	0	0	0	0	0	0	0	0	0	0	0	0	747
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		355	0	0	0	0	0	0	0	0	0	0	0	0	355
	918-San Juan AR-Labor	-6,103	0	0	0	0	0	0	0	0	0	0	0	0	-6,103
	921-Stores / Purchasing Load	1,885	0	0	0	0	0	0	0	0	0	0	0	0	1,885
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	7,510	0	0	0	0	375	342	0	0	0	0	0	0	8,227
	926-A and G Loads	10,791	0	0	0	0	830	758	0	0	0	0	0	0	12,379
	928-AFUDC Debt Reg	1,572	0	0	0	0	24	69	0	0	0	0	0	0	1,664
	929-AFUDC - Equity Regular	1,522	0	0	0	0	31	90	0	0	0	0	0	0	1,643
	937-San Juan AR - Other	-232,197	0	0	0	0	-18,102	-16,550	0	0	0	0	0	0	-266,850
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	240,286	0	0	0	0	18,157	16,710	0	0	0	0	0	0	275,152
	825-Clearings	-246,036	0	0	0	0	0	-34,866	0	0	0	0	0	0	-280,902
	Clr Sum	-246,036	0	0	0	0	0	-34,866	0	0	0	0	0	0	-280,902
	Proj Net	-5,750	0	0	0	0	18,157	-18,157	0	0	0	0	0	0	-5,750

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	77916216	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,545	0	0	0	0	0	0	0	0	0	0	0	0	6,545
	120-Overtime-General	3,584	0	0	0	0	0	0	0	0	0	0	0	0	3,584
	350-Material Issues-Major	174,495	0	0	0	0	0	0	0	0	0	0	0	0	174,495
	370-Outside Services	336,580	0	0	0	0	0	0	0	0	0	0	0	0	336,580
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	747	0	0	0	0	0	0	0	0	0	0	0	0	747
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load	355	0	0	0	0	0	0	0	0	0	0	0	0	0	355
	918-San Juan AR-Labor	-6,103	0	0	0	0	0	0	0	0	0	0	0	0	-6,103
	921-Stores / Purchasing Load	1,885	0	0	0	0	0	0	0	0	0	0	0	0	1,885
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	8,227	0	0	0	0	0	0	0	0	0	0	0	0	8,227
	926-A and G Loads	12,379	0	0	0	0	0	0	0	0	0	0	0	0	12,379
	928-AFUDC Debt Reg	1,664	0	0	0	0	0	0	0	0	0	0	0	0	1,664
929-AFUDC - Equity Regular	1,643	0	0	0	0	0	0	0	0	0	0	0	0	0	1,643
	937-San Juan AR - Other	-266,850	0	0	0	0	0	0	0	0	0	0	0	0	-266,850
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	275,152	0	0	0	0	0	0	0	0	0	0	0	0	275,152
	825-Clearings	-280,902	0	0	0	0	0	0	0	0	0	0	0	0	-280,902
	Clr Sum	-280,902	0	0	0	0	0	0	0	0	0	0	0	0	-280,902
Proj Net		-5,750	0	0	0	0	0	0	0	0	0	0	0	0	-5,750

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Project No: 77916217 Switchyard Unit 4 B Auxiliary Transformer Bushings - 2018

Company: 003-Bulk Power
Location: 779 San Juan

Project Information

Construction Start Date 1/15/2017 Estimated Completion Date 6/30/2018

List Interim In-Service Dates

0

Project Need Justification

These bushings are "U" type bushings that have been prone to failure in the industry. The electrical engineering staff recommends replacement based on the design's known flaw. There is a higher risk of failure and collateral damage if this work is not completed and would result in significant generation lost from the station.

Project Alternatives

There are no other alternatives to this project. Not replacing the bushing will result in higher risk of failure for the unit.

Technical Aspects

The bushing would be replaced with ones of different physical properties but match the operational design criteria. This is an outage required task with bushing to be ordered in 2017. Work can only occur during an outage when the equipment can be isolated for an extended period of time.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	77916217	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	77916217	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	77916217	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	28,294	82,560	55,677	28,015	0	0	0	0	0	0	194,545	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	303	883	596	300	0	0	0	0	0	0	2,082	
926-A and G Loads	0	0	0	671	1,957	1,320	664	0	0	0	0	0	0	4,611	
928-AFUDC Debt Reg	0	0	0	19	94	188	245	0	0	0	0	0	0	546	
929-AFUDC - Equity Regular	0	0	0	17	85	169	221	0	0	0	0	0	0	493	
937-San Juan AR - Other	0	0	0	-14,633	-42,700	-28,796	-14,490	0	0	0	0	0	0	-100,619	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	0	14,670	42,879	29,153	14,956	0	0	0	0	0	0	101,658	
825-Clearings	0	0	0	0	0	0	-101,658	0	0	0	0	0	0	-101,658	
Clr Sum	0	0	0	0	0	0	-101,658	0	0	0	0	0	0	-101,658	
Proj Net	0	0	0	14,670	42,879	29,153	-86,702	0	0	0	0	0	0	0	

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Project No: 77916316 Four Corners Line Relaying SCADA - Carryover - 2017

Company: 003-Bulk Power
Location: 779 San Juan

Project Information

<u>Construction Start Date</u>	8/1/2016	<u>Estimated Completion Date</u>	1/31/2017
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

This project is a carryover project originally approved for 2016 and will be completed in early 2017. Electrical power lines carrying power onto the grid are carefully monitored for abnormal operation through protective relaying. The purpose of this system is to take the line out of operation should something abnormal occur. Data about the power lines is constantly monitored by supervisory control and data acquisition systems (SCADA) so that abnormal operation of the line parameters can be reviewed by operations or engineering staff. This project will replace old style protective relaying and the SCADA system from the San Juan power station switchyard to the Four Corners power station facility power line.

Project Alternatives

The only alternative is to continue use of the existing equipment. This is not a suitable option because the protective relaying has had several operational failures over the past few years. Also, the SCADA system is obsolete and spare parts have become difficult to procure.

Technical Aspects

The power system's electrical power lines are monitored by protective relaying to prevent damage to the line should an abnormal event occur (i.e., lightning strike). Similarly SCADA systems are employed to monitor the line and transmit data from remote locations to a central transmission group. These devices record data so that the cause of the protective relay operation can be reviewed. This system can also be reviewed to ensure the line is operating within normal specifications.

Project Estimate Approach

Indicative pricing for this project was obtained from various protective relay vendors and SCADA providers.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	77916316	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	49,000	108,000	147,500	47,000	28,000	379,500		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-560	-560	-560	-1,681		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	524	1,156	1,578	503	300	4,061		
926-A and G Loads	0			0	1,161	2,560	3,496	1,114	664	8,994		
928-AFUDC Debt Reg	0			0	29	120	269	382	427	1,227		
929-AFUDC - Equity Regular	0			0	31	130	291	414	462	1,329		
937-San Juan AR - Other	0			0	-25,343	-55,858	-76,287	-24,308	-14,482	-196,277		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	25,402	56,108	76,287	24,545	14,810	197,152		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	25,402	56,108	76,287	24,545	14,810	197,152		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	77916316	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	379,500	0	0	0	0	0	0	0	0	0	0	0	0	379,500
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-1,681	-719	0	0	0	0	0	0	0	0	0	0	0	-2,400
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,061	0	0	0	0	0	0	0	0	0	0	0	0	4,061
	926-A and G Loads	8,994	0	0	0	0	0	0	0	0	0	0	0	0	8,994
	928-AFUDC Debt Reg	1,227	513	0	0	0	0	0	0	0	0	0	0	0	1,740
	929-AFUDC - Equity Regular	1,329	673	0	0	0	0	0	0	0	0	0	0	0	2,002
	937-San Juan AR - Other	-196,277	0	0	0	0	0	0	0	0	0	0	0	0	-196,277
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	197,152	467	0	0	0	0	0	0	0	0	0	0	0	197,619
	825-Clearings	0	-197,619	0	0	0	0	0	0	0	0	0	0	0	-197,619
	Clr Sum	0	-197,619	0	0	0	0	0	0	0	0	0	0	0	-197,619
	Proj Net	197,152	-197,152	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	77916316	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	379,500	0	0	0	0	0	0	0	0	0	0	0	0	379,500
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,400	0	0	0	0	0	0	0	0	0	0	0	0	-2,400
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,061	0	0	0	0	0	0	0	0	0	0	0	0	4,061
	926-A and G Loads	8,994	0	0	0	0	0	0	0	0	0	0	0	0	8,994
	928-AFUDC Debt Reg	1,740	0	0	0	0	0	0	0	0	0	0	0	0	1,740
929-AFUDC - Equity Regular		2,002	0	0	0	0	0	0	0	0	0	0	0	0	2,002
	937-San Juan AR - Other	-196,277	0	0	0	0	0	0	0	0	0	0	0	0	-196,277
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	197,619	0	0	0	0	0	0	0	0	0	0	0	0	197,619
	825-Clearings	-197,619	0	0	0	0	0	0	0	0	0	0	0	0	-197,619
	Clr Sum	-197,619	0	0	0	0	0	0	0	0	0	0	0	0	-197,619
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Company: 003-Bulk Power
Location: 779 San Juan

<u>Construction Start Date</u>	8/15/2015	<u>Estimated Completion Date</u>	11/30/2016
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N/A

This project replaces aging 345kV circuit breakers in the San Juan switchyard. Replacement is needed due to poor performance, significant historical maintenance history, lack of available repair parts, and industry obsolescence.

The only other alternative is to continue operation and maintenance of existing circuit breakers. However, the likelihood of breaker failure increases with age. The switchyard is configured in a way that a breaker failure can cause another element (such as a transmission line or generation unit) to trip offline. These consequences are unacceptable and therefore the continued operation and maintenance alternative is not considered viable.

Project work will involve individual evaluations of circuit breakers for current performance and to establish a prioritized schedule for replacement based on equipment history, scheduled outages, and current performance. This project is part of an on-going multi-year program to replace breakers.

The costs of the project include engineering, materials, internal and external labor, project management, general and administrative loads and AFUDC.

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	77917223	Year	2016		Jul	Aug	Sep	Oct	Nov	Dec	Total
Cost Type		Bal 6/30/16									
110-Straight Time-General		958			0	0	0	0	0	0	958
120-Overtime-General		0			0	0	0	0	0	0	0
350-Material Issues-Major		269,442			0	0	0	0	0	0	269,442
370-Outside Services		0			0	0	77,000	0	675,400	0	752,400
374-Outside Svcs Legal		0			0	0	0	0	0	0	0
377-Outside Services-Temp Labor		0			0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0			0	0	0	0	0	0	0
530-Employee Expense		0			0	0	0	0	0	0	0
610-Expenses - General		0			0	0	0	0	0	0	0
805-Land and Land Rights		0			0	0	0	0	0	0	0
807-Non Refundable Contribution		0			0	0	0	0	0	0	0
829-Construction Adjustment		0			0	0	0	0	0	0	0
426-Capitalized Interest		0			0	0	0	0	0	0	0
908-Luna AR - Labor		0			0	0	0	0	0	0	0
909-Luna AR - Other		0			0	0	0	0	0	0	0
913-Payroll Taxes Load		74			0	0	0	0	0	0	74
914-Pension and Benefits Load		314			0	0	0	0	0	0	314
915-Injuries and Damages Load		27			0	0	0	0	0	0	27
918-San Juan AR-Labor		-758			0	0	0	0	0	0	-758
921-Stores / Purchasing Load		1,827			0	0	0	0	0	0	1,827
922-Minor Material Load		0			0	0	0	0	0	0	0
925-E and S Loads		718			0	0	824	0	7,227	0	8,768
926-A and G Loads		6,414			0	0	1,825	0	16,007	0	24,246
928-AFUDC Debt Reg		6,891			0	0	0	0	0	0	6,891
929-AFUDC - Equity Regular		7,231			0	0	0	0	0	0	7,231
937-San Juan AR - Other		-139,301			0	0	-39,824	0	-349,317	0	-528,442
961-Luna A&G PNMR D&V		0			0	0	0	0	0	0	0
Cost Sum		153,836			0	0	39,824	0	349,317	0	542,978
825-Clearings		0			-154,180	0	-39,824	0	-349,317	0	-543,322
Clr Sum		0			-154,180	0	-39,824	0	-349,317	0	-543,322
Proj Net		153,836			-154,180	0	0	0	0	0	-344

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	77917223	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	958	0	0	0	0	0	0	0	0	0	0	0	0	958
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	269,442	0	0	0	0	0	0	0	0	0	0	0	0	269,442
	370-Outside Services	752,400	0	0	0	0	0	0	0	0	0	0	0	0	752,400
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	74	0	0	0	0	0	0	0	0	0	0	0	0	74
	914-Pension and Benefits Load	314	0	0	0	0	0	0	0	0	0	0	0	0	314
	915-Injuries and Damages Load	27	0	0	0	0	0	0	0	0	0	0	0	0	27
	918-San Juan AR-Labor	-758	0	0	0	0	0	0	0	0	0	0	0	0	-758
	921-Stores / Purchasing Load	1,827	0	0	0	0	0	0	0	0	0	0	0	0	1,827
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	8,768	0	0	0	0	0	0	0	0	0	0	0	0	8,768
	926-A and G Loads	24,246	0	0	0	0	0	0	0	0	0	0	0	0	24,246
	928-AFUDC Debt Reg	6,891	0	0	0	0	0	0	0	0	0	0	0	0	6,891
	929-AFUDC - Equity Regular	7,231	0	0	0	0	0	0	0	0	0	0	0	0	7,231
	937-San Juan AR - Other	-528,442	0	0	0	0	0	0	0	0	0	0	0	0	-528,442
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	542,978	0	0	0	0	0	0	0	0	0	0	0	0	542,978
	825-Clearings	-543,322	0	0	0	0	0	0	0	0	0	0	0	0	-543,322
	Clr Sum	-543,322	0	0	0	0	0	0	0	0	0	0	0	0	-543,322
	Proj Net	-344	0	0	0	0	0	0	0	0	0	0	0	0	-344

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	77917223	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	958	0	0	0	0	0	0	0	0	0	0	0	0	958
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	269,442	0	0	0	0	0	0	0	0	0	0	0	0	269,442
	370-Outside Services	752,400	0	0	0	0	0	0	0	0	0	0	0	0	752,400
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	74	0	0	0	0	0	0	0	0	0	0	0	0	74
	914-Pension and Benefits Load	314	0	0	0	0	0	0	0	0	0	0	0	0	314
	915-Injuries and Damages Load	27	0	0	0	0	0	0	0	0	0	0	0	0	27
	918-San Juan AR-Labor	-758	0	0	0	0	0	0	0	0	0	0	0	0	-758
	921-Stores / Purchasing Load	1,827	0	0	0	0	0	0	0	0	0	0	0	0	1,827
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	8,768	0	0	0	0	0	0	0	0	0	0	0	0	8,768
	926-A and G Loads	24,246	0	0	0	0	0	0	0	0	0	0	0	0	24,246
	928-AFUDC Debt Reg	6,891	0	0	0	0	0	0	0	0	0	0	0	0	6,891
	929-AFUDC - Equity Regular	7,231	0	0	0	0	0	0	0	0	0	0	0	0	7,231
	937-San Juan AR - Other	-528,442	0	0	0	0	0	0	0	0	0	0	0	0	-528,442
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	542,978	0	0	0	0	0	0	0	0	0	0	0	0	542,978
	825-Clearings	-543,322	0	0	0	0	0	0	0	0	0	0	0	0	-543,322
	Clr Sum	-543,322	0	0	0	0	0	0	0	0	0	0	0	0	-543,322
Proj Net	-344	0	0	0	0	0	0	0	0	0	0	0	0	0	-344

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Rio Bravo/La Luz/Production

Project No: 04616116 Rio Bravo LCI Upgrade

Company: 003-Bulk Power
Location: 046 Rio Bravo

Project Information

<u>Construction Start Date</u>	7/15/2016	<u>Estimated Completion Date</u>	11/30/2016
<u>List Interim In-Service Dates</u>	0		

Project Need Justification

The current Load Commutator Inverter (LCI) controls are no longer supported by General Electric (GE). The LC controls are used to protect and control the LCI during unit roll up. During unit roll up, the LCI provides the electrical power source for the generator to function as a motor until the combustion turbine fires. The current LCI Controls will be replaced with a new GE microprocessor based system. Since the LCI controls are obsolete system, this system's failure will greatly affect the unit's availability.

Project Alternatives

There are no other alternatives to this option and doing nothing is not feasible. The current LCI controls are no longer supported by GE and a new the third party option will require significant engineering, software, hardware and installation costs well above the currently selected option.

Technical Aspects

The project involves the purchase and installation of the LCI controls from GE. The project includes engineering, hardware, software and installation. In addition, GE will test and commission the LCI controls system.

Project Estimate Approach

Single-Sole Source

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	04616116	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	1,350	1,000	3,000	1,400	0	6,750		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	70,000	54,828	165,000	70,000	0	359,828		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-1,082	-1,082	0	-2,164		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	91	67	202	94	0	454		
914-Pension and Benefits Load	0			0	429	318	953	445	0	2,143		
915-Injuries and Damages Load	0			0	43	32	96	45	0	216		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	5,936	4,645	13,978	5,940	0	30,499		
928-AFUDC Debt Reg	0			0	88	245	520	814	0	1,666		
929-AFUDC - Equity Regular	0			0	95	265	563	881	0	1,804		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	78,032	61,399	183,228	78,537	0	401,196		
825-Clearings	0			0	0	0	0	-401,196	0	-401,196		
Clr Sum	0			0	0	0	0	-401,196	0	-401,196		
Proj Net	0			0	78,032	61,399	183,228	-322,659	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	04616116	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,750	0	0	0	0	0	0	0	0	0	0	0	0	6,750
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	359,828	0	0	0	0	0	0	0	0	0	0	0	0	359,828
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,164	0	0	0	0	0	0	0	0	0	0	0	0	-2,164
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	454	0	0	0	0	0	0	0	0	0	0	0	0	454
	914-Pension and Benefits Load	2,143	0	0	0	0	0	0	0	0	0	0	0	0	2,143
	915-Injuries and Damages Load	216	0	0	0	0	0	0	0	0	0	0	0	0	216
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	30,499	0	0	0	0	0	0	0	0	0	0	0	0	30,499
	928-AFUDC Debt Reg	1,666	0	0	0	0	0	0	0	0	0	0	0	0	1,666
	929-AFUDC - Equity Regular	1,804	0	0	0	0	0	0	0	0	0	0	0	0	1,804
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	401,196	0	0	0	0	0	0	0	0	0	0	0	0	401,196
	825-Clearings	-401,196	0	0	0	0	0	0	0	0	0	0	0	0	-401,196
	Clr Sum	-401,196	0	0	0	0	0	0	0	0	0	0	0	0	-401,196
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	04616116	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,750	0	0	0	0	0	0	0	0	0	0	0	0	6,750
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	359,828	0	0	0	0	0	0	0	0	0	0	0	0	359,828
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,164	0	0	0	0	0	0	0	0	0	0	0	0	-2,164
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	454	0	0	0	0	0	0	0	0	0	0	0	0	454
	914-Pension and Benefits Load	2,143	0	0	0	0	0	0	0	0	0	0	0	0	2,143
	915-Injuries and Damages Load	216	0	0	0	0	0	0	0	0	0	0	0	0	216
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	30,499	0	0	0	0	0	0	0	0	0	0	0	0	30,499
	928-AFUDC Debt Reg	1,666	0	0	0	0	0	0	0	0	0	0	0	0	1,666
	929-AFUDC - Equity Regular	1,804	0	0	0	0	0	0	0	0	0	0	0	0	1,804
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	401,196	0	0	0	0	0	0	0	0	0	0	0	0	401,196
	825-Clearings	-401,196	0	0	0	0	0	0	0	0	0	0	0	0	-401,196
	Clr Sum	-401,196	0	0	0	0	0	0	0	0	0	0	0	0	-401,196
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 04616117 Rio Bravo Back-up Generator

Company: 003-Bulk Power
Location: 046 Rio Bravo

Project Information

Construction Start Date 1/2/2017 Estimated Completion Date 11/30/2017

List Interim In-Service Dates

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Project Need Justification

A backup generator is needed to support the system back start plan. Currently, Rio Bravo cannot support restoration of generation in less than 24 hours because it will discharge H2 from the generator after 20 minutes and will require at least recharging the generator. The installation of an emergency generator will make it possible to restore power to the PNM system because Rio Bravo could be brought online in 10 minutes and just 4.5 hours to bring the Reeves units online.

Project Alternatives

This is the only viable alternative. No other options were considered.

Technical Aspects

PNM will develop a specification for the backup generator and solicit bids for the technical work. Engineering will develop a system design and scope of work for bidding purposes. In addition, PNM will work with the environmental department to pursue all necessary permits.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	04616117	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	04616117	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	1,000	1,000	1,000	0	0	0	1,000	1,000	1,000	10,000	0	16,000	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	0	0	0	0	0	10,000	0	0	125,000	0	5,000	110,706	0	250,706	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	69	69	69	0	0	0	69	69	69	689	0	1,102	
914-Pension and Benefits Load	0	0	316	316	316	0	0	0	316	316	316	3,162	0	5,059	
915-Injuries and Damages Load	0	0	23	23	23	0	0	0	23	23	23	225	0	360	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	0	67	67	67	672	0	0	8,467	67	403	8,111	0	17,923	
928-AFUDC Debt Reg	0	0	2	6	10	26	40	40	216	395	408	593	0	1,734	
929-AFUDC - Equity Regular	0	0	3	8	13	34	52	52	283	518	535	777	0	2,274	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	0	1,479	1,488	1,497	10,731	92	92	135,374	2,388	7,754	134,263	0	295,158	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	-295,158	0	-295,158	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	-295,158	0	-295,158	
Proj Net	0	0	1,479	1,488	1,497	10,731	92	92	135,374	2,388	7,754	-160,895	0	0	

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	04616117	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	16,000	0	0	0	0	0	0	0	0	0	0	0	0	16,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	250,706	0	0	0	0	0	0	0	0	0	0	0	0	250,706
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,102	0	0	0	0	0	0	0	0	0	0	0	0	1,102
	914-Pension and Benefits Load	5,059	0	0	0	0	0	0	0	0	0	0	0	0	5,059
	915-Injuries and Damages Load	360	0	0	0	0	0	0	0	0	0	0	0	0	360
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	17,923	0	0	0	0	0	0	0	0	0	0	0	0	17,923
	928-AFUDC Debt Reg	1,734	0	0	0	0	0	0	0	0	0	0	0	0	1,734
	929-AFUDC - Equity Regular	2,274	0	0	0	0	0	0	0	0	0	0	0	0	2,274
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	295,158	0	0	0	0	0	0	0	0	0	0	0	0	295,158
	825-Clearings	-295,158	0	0	0	0	0	0	0	0	0	0	0	0	-295,158
	Clr Sum	-295,158	0	0	0	0	0	0	0	0	0	0	0	0	-295,158
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Company: 003-Bulk Power
Location: 046 Rio Bravo

<u>Construction Start Date</u>	7/15/2016	<u>Estimated Completion Date</u>	11/30/2016
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The current automatic voltage regulator (AVR) and power system stabilizer (PSS) will no longer be supported by General Electric (GE). The AVR controls and monitors the voltage for the output of the generator. The PSS is a supplementary excitation controller used to dampen generator electro-mechanical oscillations in order to protect the shaft line and stabilize the grid. The PSS is a software application that resides within the AVR. The AVR will be replaced with a new GE microprocessor based system. Since the AVR/PSS is an obsolete system, limited spare parts and technical support have also made it very difficult to replace major components in the event of an AVR/PSS control system failure, which seriously affects the unit's availability because it will take several months to install a retrofitted AVR/PSS control system. The new AVR/PSS system will improve the reliability and longevity of the turbine AVR/PSS control system. The requested funds will be allocated for the purchase of the new AVR/PSS system and the labor to install, test and commission the retrofit system. In addition, funds are included for PNM project management. PNM project management includes project work, cost and schedule tracking.

The do nothing option is not feasible. The current AVR/PSS system will no longer be supported by GE. If the system should experience a major failure, limited spare parts and technical expertise will be available to replace major components and the unit will be in outage until a retrofit system is installed. This will have a significant negative affect the unit's availability. Another option that was considered was to replace the AVR/PSS with a Non-GE system. After thorough analysis, it was determined that this approach creates a technical risk because GE will no longer guarantee implementation of GE recommend technical changes (TILs) if a non-GE control system is implemented. TILs are software and hardware upgrades and changes recommended by GE to ensure reliable and safe operation of the combustion turbine. In addition, implementing a third-party retrofit system would cost more because a complete system replacement would be required. The third party option will require significant engineering, software, hardware and installation costs.

The project involves the purchase and installation of the AVR/PSS System from General Electric (GE). The project includes engineering, hardware, software and installation. In addition, GE will test and commission the AVR/PSSI system.

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	04616316	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	2,000	1,500	4,000	2,000	0	9,500		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	75,100	60,100	170,100	75,240	0	380,540		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-1,160	-1,160	0	-2,319		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	135	101	269	135	0	639		
914-Pension and Benefits Load	0			0	635	476	1,270	635	0	3,016		
915-Injuries and Damages Load	0			0	64	48	128	64	0	304		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	6,415	5,125	14,485	6,426	0	32,451		
928-AFUDC Debt Reg	0			0	95	266	557	866	0	1,785		
929-AFUDC - Equity Regular	0			0	103	289	603	938	0	1,933		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	84,546	67,905	190,252	85,145	0	427,849		
825-Clearings	0			0	0	0	0	-427,849	0	-427,849		
Clr Sum	0			0	0	0	0	-427,849	0	-427,849		
Proj Net	0			0	84,546	67,905	190,252	-342,704	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	04616316	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	9,500	0	0	0	0	0	0	0	0	0	0	0	0	9,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	380,540	0	0	0	0	0	0	0	0	0	0	0	0	380,540
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-2,319	0	0	0	0	0	0	0	0	0	0	0	0	-2,319
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	639	0	0	0	0	0	0	0	0	0	0	0	0	639
	914-Pension and Benefits Load	3,016	0	0	0	0	0	0	0	0	0	0	0	0	3,016
	915-Injuries and Damages Load	304	0	0	0	0	0	0	0	0	0	0	0	0	304
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	32,451	0	0	0	0	0	0	0	0	0	0	0	0	32,451
	928-AFUDC Debt Reg	1,785	0	0	0	0	0	0	0	0	0	0	0	0	1,785
	929-AFUDC - Equity Regular	1,933	0	0	0	0	0	0	0	0	0	0	0	0	1,933
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	427,849	0	0	0	0	0	0	0	0	0	0	0	0	427,849
	825-Clearings	-427,849	0	0	0	0	0	0	0	0	0	0	0	0	-427,849
	Clr Sum	-427,849	0	0	0	0	0	0	0	0	0	0	0	0	-427,849
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	04616316	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	9,500	0	0	0	0	0	0	0	0	0	0	0	0	9,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	380,540	0	0	0	0	0	0	0	0	0	0	0	0	380,540
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	-2,319	0	0	0	0	0	0	0	0	0	0	0	0	-2,319
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	639	0	0	0	0	0	0	0	0	0	0	0	0	639
914-Pension and Benefits Load	915-Injuries and Damages Load	3,016	0	0	0	0	0	0	0	0	0	0	0	0	3,016
	918-San Juan AR-Labor	304	0	0	0	0	0	0	0	0	0	0	0	0	304
921-Stores / Purchasing Load	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	32,451	0	0	0	0	0	0	0	0	0	0	0	0	32,451
	928-AFUDC Debt Reg	1,785	0	0	0	0	0	0	0	0	0	0	0	0	1,785
929-AFUDC - Equity Regular	937-San Juan AR - Other	1,933	0	0	0	0	0	0	0	0	0	0	0	0	1,933
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	427,849	0	0	0	0	0	0	0	0	0	0	0	0	427,849
	825-Clearings	-427,849	0	0	0	0	0	0	0	0	0	0	0	0	-427,849
	Clr Sum	-427,849	0	0	0	0	0	0	0	0	0	0	0	0	-427,849
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 04616317 Rio Bravo Exhaust Duct Upgrade

Company: 003-Bulk Power
Location: 046 Rio Bravo

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 10/31/2017

List Interim In-Service Dates

0

Project Need Justification

During the Spring outage, PNM discovered that all the components and diffusers in the exhaust plenum were damaged and required replacement. In order to improve longevity, it is recommended that all components be stainless steel. Extensive work overall will be required to return the plenum back to original design.

Project Alternatives

No other alternative were considered. The work must be performed based as recommended to return the plenum back to original design and operational specifications.

Technical Aspects

PNM will hire a turbine specialist to develop scope of work. Once this complete, bids will be sent out for bid and awarded based on cost and quality.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	04616317	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	04616317	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	1,000	0	1,000	0	0	1,000	1,000	1,000	0	0	5,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	100,000	0	0	0	120,330	0	0	220,330
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj	Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non	Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	69	0	69	0	0	69	69	69	0	0	345
	914-Pension and Benefits Load	0	0	0	316	0	316	0	0	316	316	316	0	0	1,581
	915-Injuries and Damages Load	0	0	0	23	0	23	0	0	23	23	23	0	0	113
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	67	0	67	6,720	0	67	67	8,153	0	0	15,142
	928-AFUDC Debt Reg	0	0	0	2	4	6	147	287	290	296	469	0	0	1,501
	929-AFUDC - Equity Regular	0	0	0	3	5	8	193	376	381	388	615	0	0	1,969
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	1,479	9	1,488	107,059	663	2,146	2,159	130,975	0	0	245,980
	825-Clearings	0	0	0	0	0	0	0	0	0	0	-245,980	0	0	-245,980
	Clr Sum	0	0	0	0	0	0	0	0	0	0	-245,980	0	0	-245,980
Proj Net		0	0	0	1,479	9	1,488	107,059	663	2,146	2,159	-115,004	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	04616317	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,000	0	0	0	0	0	0	0	0	0	0	0	0	5,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	220,330	0	0	0	0	0	0	0	0	0	0	0	0	220,330
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	345	0	0	0	0	0	0	0	0	0	0	0	0	345
	914-Pension and Benefits Load	1,581	0	0	0	0	0	0	0	0	0	0	0	0	1,581
	915-Injuries and Damages Load	113	0	0	0	0	0	0	0	0	0	0	0	0	113
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	15,142	0	0	0	0	0	0	0	0	0	0	0	0	15,142
	928-AFUDC Debt Reg	1,501	0	0	0	0	0	0	0	0	0	0	0	0	1,501
	929-AFUDC - Equity Regular	1,969	0	0	0	0	0	0	0	0	0	0	0	0	1,969
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	245,980	0	0	0	0	0	0	0	0	0	0	0	0	245,980
	825-Clearings	-245,980	0	0	0	0	0	0	0	0	0	0	0	0	-245,980
	Clr Sum	-245,980	0	0	0	0	0	0	0	0	0	0	0	0	-245,980
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 04616416 Rio Bravo Relay Upgrade

Company: 003-Bulk Power
Location: 046 Rio Bravo

Project Information

Construction Start Date 7/15/2016 Estimated Completion Date 11/30/2016

List Interim In-Service Dates

0

Project Need Justification

As of 2010, GE no longer provides technical support for the Rio Bravo Generator Protection (GDP) relays. The GDP relays located in the Packaged Electronic Control Compartment (PECC) no longer provide the highest level of protection to meet North American Electric Reliability Corporation (NERC) compliance guidelines as well. In addition to meeting regulatory requirements and being serviceable, replacing the GDP relays will also increase on site personnel safety and significantly improve equipment protection if an unexpected electric fault were to occur.

Project Alternatives

There are no other options viable. NERC requires that all generating facilities comply with current Public Regulatory Commission (PRC) standards.

Technical Aspects

The project involves the purchase and installation of the G60 Relay System from General Electric (GE). The project includes engineering, hardware, software and installation.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	04616416	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	4,480	4,480	0	8,960		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	24,700	24,700	0	49,400		
370-Outside Services	0			0	0	0	41,405	41,404	0	82,809		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-188	-188	0	-375		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	302	302	0	603		
914-Pension and Benefits Load	0			0	0	0	1,422	1,422	0	2,845		
915-Injuries and Damages Load	0			0	0	0	143	143	0	287		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	1,759	1,759	0	3,517		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	5,873	5,873	0	11,745		
928-AFUDC Debt Reg	0			0	0	0	90	271	0	361		
929-AFUDC - Equity Regular	0			0	0	0	98	293	0	391		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	80,084	80,458	0	160,542		
825-Clearings	0			0	0	0	0	-160,542	0	-160,542		
Clr Sum	0			0	0	0	0	-160,542	0	-160,542		
Proj Net	0			0	0	0	80,084	-80,084	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	04616416	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	8,960	0	0	0	0	0	0	0	0	0	0	0	0	8,960
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	49,400	0	0	0	0	0	0	0	0	0	0	0	0	49,400
	370-Outside Services	82,809	0	0	0	0	0	0	0	0	0	0	0	0	82,809
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-375	0	0	0	0	0	0	0	0	0	0	0	0	-375
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	603	0	0	0	0	0	0	0	0	0	0	0	0	603
	914-Pension and Benefits Load	2,845	0	0	0	0	0	0	0	0	0	0	0	0	2,845
	915-Injuries and Damages Load	287	0	0	0	0	0	0	0	0	0	0	0	0	287
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	3,517	0	0	0	0	0	0	0	0	0	0	0	0	3,517
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	11,745	0	0	0	0	0	0	0	0	0	0	0	0	11,745
	928-AFUDC Debt Reg	361	0	0	0	0	0	0	0	0	0	0	0	0	361
	929-AFUDC - Equity Regular	391	0	0	0	0	0	0	0	0	0	0	0	0	391
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	160,542	0	0	0	0	0	0	0	0	0	0	0	0	160,542
	825-Clearings	-160,542	0	0	0	0	0	0	0	0	0	0	0	0	-160,542
	Clr Sum	-160,542	0	0	0	0	0	0	0	0	0	0	0	0	-160,542
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	04616416	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	8,960	0	0	0	0	0	0	0	0	0	0	0	0	8,960
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	49,400	0	0	0	0	0	0	0	0	0	0	0	0	49,400
	370-Outside Services	82,809	0	0	0	0	0	0	0	0	0	0	0	0	82,809
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-375	0	0	0	0	0	0	0	0	0	0	0	0	-375
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	603	0	0	0	0	0	0	0	0	0	0	0	0	603
	914-Pension and Benefits Load	2,845	0	0	0	0	0	0	0	0	0	0	0	0	2,845
	915-Injuries and Damages Load	287	0	0	0	0	0	0	0	0	0	0	0	0	287
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	3,517	0	0	0	0	0	0	0	0	0	0	0	0	3,517
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	11,745	0	0	0	0	0	0	0	0	0	0	0	0	11,745
	928-AFUDC Debt Reg	361	0	0	0	0	0	0	0	0	0	0	0	0	361
	929-AFUDC - Equity Regular	391	0	0	0	0	0	0	0	0	0	0	0	0	391
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	160,542	0	0	0	0	0	0	0	0	0	0	0	0	160,542
	825-Clearings	-160,542	0	0	0	0	0	0	0	0	0	0	0	0	-160,542
	Clr Sum	-160,542	0	0	0	0	0	0	0	0	0	0	0	0	-160,542
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project No: 75216017 La Luz Paving

Company: 003-Bulk Power
Location: 752 Generation

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 5/31/2017

List Interim In-Service Dates

0

Project Need Justification

There are many uneven surfaces and grades throughout the plant site. Also, several safety hazards exist, including:-crushed gravel installed around plant equipment causing a tripping hazard;-limited paving causing dust-blow and eye injuries. The paving project will improve plant drainage, replace existing crushed gravel with reclaimed paving and provide more paving making working areas more safe all personnel. The project will replace the existing crushed gravel around the plant equipment; provide a paved road around the perimeter of the unit and the main entrance road. Currently the plant main entrance road is compacted road fill.

Project Alternatives

The do nothing option is a project alternative. This option is not recommended because the current condition of gravel and road fill in the area pose various safety hazards. Paving will reduce these hazards.

Technical Aspects

This project involves the planning and paving of the main entrance roadway and plant ground with large machinery and equipment. PNM will hire a contractor to create the design for the paving. Once this design is complete, PNM will bid the project out and provide project management services.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	75216017	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project 75216017	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	0	0	1,500	1,500	1,500	0	0	0	0	0	0	0	4,500
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
370-Outside Services	0	0	0	165,555	165,500	165,500	0	0	0	0	0	0	0	496,555
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	0	0	0	103	103	103	0	0	0	0	0	0	0	310
914-Pension and Benefits Load	0	0	0	474	474	474	0	0	0	0	0	0	0	1,423
915-Injuries and Damages Load	0	0	0	34	34	34	0	0	0	0	0	0	0	101
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads	0	0	0	11,226	11,222	11,222	0	0	0	0	0	0	0	33,671
928-AFUDC Debt Reg	0	0	0	233	701	1,171	0	0	0	0	0	0	0	2,105
929-AFUDC - Equity Regular	0	0	0	306	919	1,536	0	0	0	0	0	0	0	2,761
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	0	0	0	179,431	180,454	181,541	0	0	0	0	0	0	0	541,426
825-Clearings	0	0	0	0	0	-541,426	0	0	0	0	0	0	0	-541,426
Clr Sum	0	0	0	0	0	-541,426	0	0	0	0	0	0	0	-541,426
Proj Net	0	0	0	179,431	180,454	-359,885	0	0	0	0	0	0	0	0

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	75216017	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,500	0	0	0	0	0	0	0	0	0	0	0	0	4,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	496,555	0	0	0	0	0	0	0	0	0	0	0	0	496,555
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	310	0	0	0	0	0	0	0	0	0	0	0	0	310
	914-Pension and Benefits Load	1,423	0	0	0	0	0	0	0	0	0	0	0	0	1,423
	915-Injuries and Damages Load	101	0	0	0	0	0	0	0	0	0	0	0	0	101
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	33,671	0	0	0	0	0	0	0	0	0	0	0	0	33,671
	928-AFUDC Debt Reg	2,105	0	0	0	0	0	0	0	0	0	0	0	0	2,105
	929-AFUDC - Equity Regular	2,761	0	0	0	0	0	0	0	0	0	0	0	0	2,761
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	541,426	0	0	0	0	0	0	0	0	0	0	0	0	541,426
	825-Clearings	-541,426	0	0	0	0	0	0	0	0	0	0	0	0	-541,426
	Clr Sum	-541,426	0	0	0	0	0	0	0	0	0	0	0	0	-541,426
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 75216117 La Luz Warehouse

Company: 003-Bulk Power
Location: 752 Generation

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 5/31/2017

List Interim In-Service Dates

0

Project Need Justification

Currently there is no storage onsite for large or small replacement items. Most of these items are now stored in the plant's workshop, which has limited space and impacts the ability to perform maintenance activities.

Project Alternatives

Other alternatives considered included storage of parts at the Reeves or Rio Bravo facilities. Both plant are located several miles away so these options are not preferred or economical.

Technical Aspects

A local design firm will design the warehouse. Once the design is completed, PNM will develop a scope of work and put the project out for bid. PNM will provide project management overall.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	75216117	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	0	0	0	0		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	0	0	0	0	0	0		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	0	0	0	0	0	0		
914-Pension and Benefits Load	0			0	0	0	0	0	0	0		
915-Injuries and Damages Load	0			0	0	0	0	0	0	0		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	0	0	0	0	0	0		
928-AFUDC Debt Reg	0			0	0	0	0	0	0	0		
929-AFUDC - Equity Regular	0			0	0	0	0	0	0	0		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	75216117	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	1,000	1,000	1,000	0	0	0	0	0	0	0	3,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	59,673	60,000	59,000	0	0	0	0	0	0	0	178,673
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	69	69	69	0	0	0	0	0	0	0	207
	914-Pension and Benefits Load	0	0	0	316	316	316	0	0	0	0	0	0	0	949
	915-Injuries and Damages Load	0	0	0	23	23	23	0	0	0	0	0	0	0	68
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	4,077	4,099	4,032	0	0	0	0	0	0	0	12,208
	928-AFUDC Debt Reg	0	0	0	85	256	427	0	0	0	0	0	0	0	767
	929-AFUDC - Equity Regular	0	0	0	111	335	560	0	0	0	0	0	0	0	1,006
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	65,354	66,098	65,426	0	0	0	0	0	0	0	196,878
	825-Clearings	0	0	0	0	0	-196,878	0	0	0	0	0	0	0	-196,878
	Clr Sum	0	0	0	0	0	-196,878	0	0	0	0	0	0	0	-196,878
Proj Net		0	0	0	65,354	66,098	-131,452	0	0	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	75216117	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,000	0	0	0	0	0	0	0	0	0	0	0	0	3,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	178,673	0	0	0	0	0	0	0	0	0	0	0	0	178,673
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	207	0	0	0	0	0	0	0	0	0	0	0	0	207
	914-Pension and Benefits Load	949	0	0	0	0	0	0	0	0	0	0	0	0	949
	915-Injuries and Damages Load	68	0	0	0	0	0	0	0	0	0	0	0	0	68
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	12,208	0	0	0	0	0	0	0	0	0	0	0	0	12,208
	928-AFUDC Debt Reg	767	0	0	0	0	0	0	0	0	0	0	0	0	767
	929-AFUDC - Equity Regular	1,006	0	0	0	0	0	0	0	0	0	0	0	0	1,006
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	196,878	0	0	0	0	0	0	0	0	0	0	0	0	196,878
	825-Clearings	-196,878	0	0	0	0	0	0	0	0	0	0	0	0	-196,878
	Clr Sum	-196,878	0	0	0	0	0	0	0	0	0	0	0	0	-196,878
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Project No: 75216316 La Luz Oil Metal Detector

Company: 003-Bulk Power
Location: 752 Generation

Project Information

Construction Start Date 7/15/2016 Estimated Completion Date 9/30/2016

List Interim In-Service Dates

0

Project Need Justification

The turbine lube oil system provides lubrication to the generator and turbine bearings. It is essential that this oil system remain clean from any metal contaminants. As such, many combustion turbines are equipped with lube oil metal detection systems. The lube oil metal detection eliminates the need for the manual process of a monthly oil analysis. Though this analysis works sometimes, it may detect metal in the system too late and lead to turbine damage and decreased reliability. The benefit of the automatic metal analyzer is that it will detect metal instantaneously and help prevent damage to turbine bearings. An outside vendor will provide all components for the system and provide technical oversight for installation, PNM maintenance will install the system and PNM engineering will perform project management.

Project Alternatives

An alternative method would be to increase the frequency of oil analysis per month. Since PNM personnel availability is limited, this would be either a strain on resources or not at all possible.

Technical Aspects

This oil system analyzer will be provided as a complete system. The system consists of an analyzer probe, analyzer and required operating software.

Project Estimate Approach

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 01

Project	75216316	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	2,921	3,000	0	0	0	5,921		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	0			0	100,000	0	0	0	0	100,000		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	0	0	0	0		
426-Capitalized Interest	0			0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0		
909-Luna AR - Other	0			0	0	0	0	0	0	0		
913-Payroll Taxes Load	0			0	197	202	0	0	0	398		
914-Pension and Benefits Load	0			0	927	953	0	0	0	1,880		
915-Injuries and Damages Load	0			0	93	96	0	0	0	189		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	0	0	0		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	0	0	0	0		
926-A and G Loads	0			0	8,563	250	0	0	0	8,813		
928-AFUDC Debt Reg	0			0	127	260	0	0	0	387		
929-AFUDC - Equity Regular	0			0	138	281	0	0	0	419		
937-San Juan AR - Other	0			0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0		
Cost Sum	0			0	112,966	5,041	0	0	0	118,007		
825-Clearings	0			0	0	-118,007	0	0	0	-118,007		
Clr Sum	0			0	0	-118,007	0	0	0	-118,007		
Proj Net	0			0	112,966	-112,966	0	0	0	0		

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Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 02

Project	75216316	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,921	0	0	0	0	0	0	0	0	0	0	0	0	5,921
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	398	0	0	0	0	0	0	0	0	0	0	0	0	398
	914-Pension and Benefits Load	1,880	0	0	0	0	0	0	0	0	0	0	0	0	1,880
	915-Injuries and Damages Load	189	0	0	0	0	0	0	0	0	0	0	0	0	189
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	8,813	0	0	0	0	0	0	0	0	0	0	0	0	8,813
	928-AFUDC Debt Reg	387	0	0	0	0	0	0	0	0	0	0	0	0	387
	929-AFUDC - Equity Regular	419	0	0	0	0	0	0	0	0	0	0	0	0	419
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	118,007	0	0	0	0	0	0	0	0	0	0	0	0	118,007
	825-Clearings	-118,007	0	0	0	0	0	0	0	0	0	0	0	0	-118,007
	Clr Sum	-118,007	0	0	0	0	0	0	0	0	0	0	0	0	-118,007
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings from July 2016 through 2018, Budget data for July 2016 - 2018

Cost Year 03

Project	75216316	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,921	0	0	0	0	0	0	0	0	0	0	0	0	5,921
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	398	0	0	0	0	0	0	0	0	0	0	0	0	398
	914-Pension and Benefits Load	1,880	0	0	0	0	0	0	0	0	0	0	0	0	1,880
	915-Injuries and Damages Load	189	0	0	0	0	0	0	0	0	0	0	0	0	189
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	8,813	0	0	0	0	0	0	0	0	0	0	0	0	8,813
	928-AFUDC Debt Reg	387	0	0	0	0	0	0	0	0	0	0	0	0	387
	929-AFUDC - Equity Regular	419	0	0	0	0	0	0	0	0	0	0	0	0	419
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	118,007	0	0	0	0	0	0	0	0	0	0	0	0	118,007
	825-Clearings	-118,007	0	0	0	0	0	0	0	0	0	0	0	0	-118,007
	Clr Sum	-118,007	0	0	0	0	0	0	0	0	0	0	0	0	-118,007
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0