

**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**

**JEFF R. MECHENBIER**

**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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**I. INTRODUCTION AND PURPOSE**

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

**A.** My name is Jeff R. Mechenbier. I am Director of the Transmission/Distribution Planning and Contracts Department at Public Service Company of New Mexico (“PNM” or “Company”). My business address is Public Service Company of New Mexico, 414 Silver Avenue SW, Albuquerque, NM 87102.

**Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL QUALIFICATIONS AND DESCRIBE YOUR JOB DUTIES.**

**A.** My education and professional qualifications are provided in PNM Exhibit JRM-1. As Director, Transmission/Distribution Planning and Contracts, I am responsible for overseeing the evaluation of the existing transmission and distribution system planning functions, analyzing system deficiencies, and creating plans for the capital expansion of these systems. I am also responsible for overseeing the administration of the Federal Energy Regulatory Commission (“FERC”) jurisdictional open-access transmission tariff (“OATT”). This responsibility involves providing transmission delivery services, processing generator interconnection applications, and executing transmission agreements. I am a Registered Professional Engineer in the State of New Mexico.

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1   **Q.   HAVE YOU PREVIOUSLY TESTIFIED IN ANY REGULATORY**  
2       **PROCEEDINGS?**

3   **A.**   Yes. I submitted Direct Testimony in New Mexico Public Regulation Commission  
4       (“NMPRC” or “Commission”) Case No. 10-00264-UT in support of PNM’s application  
5       for the abandonment and decertification of the Las Vegas generating station. I  
6       submitted Direct Testimony in NMPRC Case No. 15-00205-UT and Case No. 16-  
7       00105-UT in support of PNM’s applications for a certificate of public convenience and  
8       necessity for a proposed gas-fired generating plant to be located at the San Juan  
9       Generating Station (“San Juan”) site. PNM’s application in Case No. 15-00205-UT was  
10      withdrawn, and PNM has filed a motion to withdraw its application in Case No. 16-  
11      00105-UT. I also provided testimony before the FERC in Docket Numbers ER05-741,  
12      ER11-1915, ER12-1698 and ER13-685.

13  
14   **Q.   WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

15   **A.**   The purpose of my testimony is to describe PNM’s Transmission and Distribution  
16       (“T&D”) system which is necessary to provide safe and reliable electric service to  
17       PNM’s customers. I address and support PNM’s T&D capital investment budget  
18       for the period from July 1, 2016, through the end of the Test Period (December  
19       31, 2018)<sup>1</sup>. I also describe the operations and maintenance (“O&M”) expenses  
20       for the T&D system for the Base Period (July 1, 2015 to June 30, 2016). I address

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<sup>1</sup> 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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1 the factors driving the need for the T&D capital investments and O&M  
2 expenditures. Specifically, in the sections that follow, I discuss:

- 3 • An overview of the PNM T&D system;
- 4 • PNM's T&D capital budgeting and prioritization process, including how  
5 priorities for capital projects are established and how capital budgets are  
6 monitored;
- 7 • The capital investments required during the Capital Investment Period and  
8 why such investments are required for the safe, reliable and efficient  
9 operation of PNM's T&D system;
- 10 • How PNM's T&D O&M expenditures are budgeted and monitored;
- 11 • The PNM T&D O&M expenditures that form the basis for the Base  
12 Period; and
- 13 • The estimated costs for upcoming rights-of-way renewals on Native  
14 American lands.

15  
16 **Q. ARE YOU SPONSORING ANY RULE 17.9.530 NMAC ("RULE 530")**  
17 **SCHEDULES?**

18 **A.** Yes, I am sponsoring four Rule 530 schedules as follows:

- 19 • Rule 530 Schedule P-8 contains customer service interruption information  
20 for PNM's distribution system by occurrence, duration and location;
- 21 • Rule 530 Schedule P-9 (co-sponsored with PNM Witness Chan) contains  
22 transmission demand and energy line loss information by voltage level;

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- Rule 530 Schedule M-3 (co-sponsored with PNM Witness Chan) contains demand and energy loss factors for the Base Period and Test Period; and
- Rule 530 Schedule P-10 contains historic reliability indices for the PNM T&D system.

**Q. WHAT ROLE DOES THE PNM T&D PLANNING AND CONTRACTS DEPARTMENT HAVE IN DETERMINING THE TRANSMISSION, SUB-TRANSMISSION, AND DISTRIBUTION DEMAND AND ENERGY LINE LOSS INFORMATION?**

**A.** The PNM T&D Planning and Contracts Department calculates the historical transmission, sub-transmission and distribution demand and energy line losses and provides this information to PNM's Pricing and Load Research Department to support the development of rates and the Rule 530 Schedules P-9 and M-3.

**Q. HOW DOES YOUR TESTIMONY RELATE TO THE TESTIMONY PRESENTED BY OTHER COMPANY WITNESSES?**

**A.** I support the costs associated with PNM's T&D capital investments and O&M expenses used by PNM Witness Monroy for purposes of developing PNM's cost of service in this proceeding. Mr. Monroy addresses the jurisdictional allocation of these investments and expenses.

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**II. SUMMARY OF KEY CONCLUSIONS**

**Q. WHAT ARE YOUR KEY CONCLUSIONS?**

**A.** Overall, I conclude that:

- PNM's T&D capital investment clearings totaling \$384,489,455 during the Capital Investment Period are required for efficient system operation, regulatory compliance and to adequately expand and maintain the T&D infrastructure to reliably and safely serve PNM's customers.
- PNM uses a thorough, cost-conscious capital budgeting process to prioritize T&D capital projects, and the T&D capital investments during the Capital Investment Period are the result of this process.
- PNM's T&D O&M costs are prudent and reasonable based on comprehensive planning and continuously monitored cost control. The Base Period O&M expenses represent costs incurred by PNM T&D operations to serve customers in a safe and reliable manner.

**Q. HAVE YOU REACHED OTHER CONCLUSIONS?**

**A.** Yes. I have reached a number of other conclusions, including the following:

- PNM continues to carefully manage the cost to our customers associated with the development and operation of its T&D facilities and equipment while providing reliable service.
- PNM undertakes and prioritizes capital investments and system expansion projects in a prudent manner.

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- 1           • PNM’s planning efforts have and will continue to focus on ensuring its
- 2           system is robust enough to handle peak demands while meeting applicable
- 3           regulatory requirements.
- 4           • PNM continues to pursue and negotiate outstanding rights-of-way
- 5           renewals on Native American lands which are necessary to serve
- 6           customers.

7

8           **III. TRANSMISSION AND DISTRIBUTION SYSTEMS OVERVIEW**

9   **Q. PLEASE DESCRIBE THE NEW MEXICO TRANSMISSION SYSTEM.**

10   **A.** The New Mexico transmission system is shown in PNM Exhibit JRM-2. As

11   discussed later in my testimony, the system consists of transmission facilities

12   owned solely by PNM as well as transmission facilities owned jointly by PNM

13   and other transmission entities. The “backbone” of the system consists of several

14   345 kV lines and one 230 kV line that emanate from the Four Corners area in

15   northwest New Mexico and run to the Southeast and South. Power flow on these

16   lines is typically from north to south due to the location of base load generation

17   resources in the Four Corners area.

18

19   Southern New Mexico is served by two 345 kV lines that run from eastern

20   Arizona to the Southeast and East towards El Paso, Texas. Historically, power

21   has flowed in an easterly direction on these two lines. However, with the

22   significant addition of new generation resources in southern New Mexico over the

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1 past several years, flow patterns have changed and power flows can be very light  
2 into southern New Mexico when the generation in the south is on-line and  
3 running.

4  
5 As a general matter, the New Mexico transmission system has been designed to  
6 transport electricity from base load coal and nuclear-fueled resources constructed  
7 in the 1960s, 1970s, and 1980s in and around Four Corners, eastern Arizona, and  
8 Phoenix, to the large load centers in central and south-central New Mexico –  
9 namely, the Albuquerque, Santa Fe, and El Paso metropolitan areas. The  
10 transmission system also serves to connect the large load centers for emergency  
11 support purposes and interconnects to neighboring transmission systems to  
12 enhance system stability and promote economic interchange of power.

13  
14 **Q. PLEASE DISCUSS THE NEW MEXICO TRANSMISSION SYSTEM**  
15 **INTERCONNECTIONS.**

16 **A.** The New Mexico transmission system connects: 1) to the North, to those systems  
17 of Public Service Company of Colorado and the Western Area Power  
18 Administration (“WAPA”) Colorado-Missouri Division; 2) to the West, to those  
19 systems of Tucson Electric Power Company (“TEP”), Arizona Public Service  
20 Company (“APS”), Salt River Project Agricultural Improvement and Power  
21 District (“SRP”), and WAPA Lower Colorado Division; and 3) to the South, to  
22 the El Paso Electric Company (“EPE”) system.

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1        In addition, two 200 MW (nominal rating) asynchronous high-voltage direct  
2        current (“HVDC”) stations connect the New Mexico system, located within the  
3        Western Interconnection grid, to the transmission system of Southwestern Public  
4        Service Company (“SPS”) located in the Eastern Interconnection grid<sup>2</sup>. PNM is  
5        an owner in both of these HVDC stations – the Blackwater and Eddy County  
6        (a/k/a Artesia) ties. These stations allow interchange of power in either direction  
7        with SPS. The Blackwater tie near Clovis, New Mexico, enables the import of  
8        power directly into the Albuquerque load area via the Blackwater-BA 345 kV  
9        line. This line presently has two wind farms connected to it and is the subject of  
10       additional interest for renewable energy resources. The Eddy County tie near  
11       Artesia, New Mexico, enables power imports from the SPS transmission system  
12       by EPE and PNM via the Eddy County-Amrad 345 kV line. PNM utilizes these  
13       imports for its southern New Mexico load areas.

14  
15    **Q.    ARE THERE OTHER MAJOR ELEMENTS OF THE NEW MEXICO**  
16    **TRANSMISSION SYSTEM?**

17    **A.**    Yes. Large autotransformers located at load centers are used to step down the  
18       system voltages to the 115 kV level. Substations located on 115 kV, 69 kV and  
19       46 kV lines further step the voltages down to distribution system voltages for  
20       delivery to end users.

21  

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<sup>2</sup> There are a total of seven HVDC ties between the Western and Eastern Interconnection grids.

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1   **Q.    ARE THE TRANSMISSION FACILITIES YOU DESCRIBED SOLELY**  
2       **OWNED BY PNM OR ARE THOSE FACILITIES JOINTLY OWNED?**

3   **A.**    The projects described above are solely owned.  However, in New Mexico, as in  
4       much of the Southwest, there are many jointly-owned transmission projects.

5  
6   **Q.    PLEASE DESCRIBE PNM'S JOINTLY-OWNED TRANSMISSION**  
7       **PROJECTS.**

8   **A.**    PNM is a part owner in six jointly-owned transmission projects.  First, the Palo  
9       Verde Valley Transmission System ("VTS") is comprised of three 500 kV lines  
10      that span from the Palo Verde Nuclear Generating Station ("Palo Verde") east to  
11      the Phoenix metropolitan area (two to the Westwing switchyard and one to the  
12      Kyrene switchyard) and various transformers at the Westwing and Kyrene  
13      switchyards.  PNM owns a 12.1% undivided interest in this system, with APS,  
14      SRP, and EPE owning the balance.  SRP operates and maintains the VTS.

15  
16      Second, PNM and TEP jointly own the San Juan-Springerville-Vail Transmission  
17      System ("San Juan-Vail System") which consists of two 345 kV transmission  
18      lines that emanate south from the San Juan switchyard and continue along the  
19      New Mexico-Arizona border to the McKinley switchyard, then to the  
20      Springerville generating plant, and then to the Greenlee and Vail switchyards near  
21      the Tucson load center.  The Springerville to Coronado 345 kV line is also a part  
22      of the project.  TEP operates and maintains the San Juan-Vail System.

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1 Third, PNM and EPE jointly own the Southwest New Mexico Transmission  
2 Project ("SWNMT"). This system includes the Greenlee to Hidalgo to Luna 345  
3 kV transmission lines and switching stations. The SWNMT is operated and  
4 maintained by EPE.

5  
6 Fourth, PNM and EPE jointly own the Amrad-Eddy County 345 kV line and the  
7 Eddy County HVDC converter station that interconnects with SPS, as described  
8 above. EPE operates and maintains the Amrad-Eddy County line and SPS  
9 operates and maintains the Eddy County converter station through contractual  
10 arrangements with PNM.

11  
12 Fifth, PNM and the City of Farmington jointly own the San Juan-Shiprock  
13 transmission line, which PNM operates and maintains.

14  
15 Lastly, PNM and Tri-State Generation and Transmission Association, Inc. ("Tri-  
16 State") jointly own the Alamogordo-Hollywood 115 kV transmission line. Both  
17 PNM and Tri-State operate and maintain this transmission line.

18  
19 **Q. DOES PNM MAKE ANY OPERATIONAL DISTINCTION BETWEEN ITS**  
20 **NORTHERN NEW MEXICO AND SOUTHERN NEW MEXICO**  
21 **TRANSMISSION SYSTEMS?**

22 **A.** No. PNM operates its transmission system as a single system. The northern and  
23 southern transmission systems are different from the perspective that, although



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1 PNM owns facilities connecting its systems, it does not operate these connecting  
2 facilities and therefore transactions between the northern and southern portions of  
3 PNM's system must be coordinated with EPE and TEP. Also, because PNM  
4 lacks sufficient ownership rights in transmission to move power between the  
5 northern and southern systems, PNM must purchase transmission service from  
6 EPE and TEP for deliveries between the northern and southern portions of PNM's  
7 system.

8  
9 **Q. HOW IS PNM'S TRANSMISSION SYSTEM USED?**

10 **A.** PNM uses its transmission system to deliver generation and purchased power  
11 resources, described by PNM Witness Olson, to its customers, and to deliver the  
12 generation resources of other entities to their own customers. As a FERC  
13 jurisdictional transmission provider, PNM provides open access transmission  
14 service on its system for generator interconnection and transmission delivery  
15 services pursuant to the terms and conditions of its FERC-approved OATT. PNM  
16 provides significant amounts of transmission service to other entities as discussed  
17 below pursuant to its OATT, and PNM must plan its system to meet the needs of  
18 both its retail jurisdictional customers and its transmission customers.

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**Q. WHAT TYPES OF TRANSMISSION DELIVERY SERVICES DOES PNM PROVIDE FOR OTHER ENTITIES OVER ITS TRANSMISSION SYSTEM?**

**A.** PNM provides Network Integration Transmission Service (“NITS”) and Point-to-Point (“PTP”) transmission service over its transmission system. PNM provides NITS to the following customers: 1) Tri-State; 2) the Incorporated County of Los Alamos, New Mexico; 3) Jicarilla Apache Nation; 4) Navopache Electric Cooperative – which will terminate on December 31, 2016; 5) WAPA for Kirtland Air Force Base; 6) Navajo Tribal Utility Authority; 7) PNM Merchant on behalf of the City of Aztec, New Mexico – which terminated June 30, 2016; 8) Kit Carson Electric Cooperative – beginning July 1, 2016; and 9) the City of Gallup, New Mexico. PNM currently is obligated to provide long-term firm PTP transmission service as shown in Table JRM-1 below:

**Table JRM-1  
Transmission Service Obligations**

<b>Name of Customer</b>	<b>Reserved Capacity</b>
High Lonesome Mesa, LLC	100 MW
Tri-State	60 MW
Aragonne Mesa, LLC	90 MW
El Paso Electric Company	124 MW
Broadview (JN and KW), LLC	297 MW (see note 1)
Grady, LLC	75 MW (see note 2)
El Cabo	170 MW (see note 3)
Note 1: Deferring transmission service until December 2016	
Note 2: Deferring transmission service until 2019	
Note 3: Transmission service will commence March 2018	

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1        These services are accounted for in the allocation of revenue requirements as  
2        described by PNM Witness Monroy.

3  
4        **Q.    PLEASE   DESCRIBE   THE   DEVELOPMENT   OF   WIND   FARM**  
5        **RESOURCES IN EASTERN NEW MEXICO THAT HAVE OR WILL BE**  
6        **INTERCONNECTED TO PNM'S TRANSMISSION SYSTEM.**

7        **A.**    In New Mexico, wind resources are concentrated in the eastern portion of the  
8        state. Several wind energy centers have already been developed in this area,  
9        including the New Mexico Wind Energy Center (200 MW) and Aragonne Mesa  
10       (90 MW). Both of these projects interconnect to PNM's 216 mile 345 kV  
11       transmission line from the BA 345 kV switching station (north of Albuquerque) to  
12       PNM's Blackwater 345 kV Station (in the Clovis-Portales area of eastern New  
13       Mexico), known as the Eastern Interconnect Project ("EIP"). Three additional  
14       New Mexico wind farm projects have entered into power purchase agreements  
15       with customers in California and have acquired or are in the process of acquiring  
16       transmission service from PNM. Pattern Energy Group, Inc. is developing the  
17       Broadview and Grady wind farms that will interconnect to PNM's Blackwater  
18       station near the Texas border. Avangrid (formally Iberdrola) is developing the El  
19       Cabo wind farm that will interconnect to PNM's EIP line near Clines Corners.

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1   **Q.   PLEASE   DESCRIBE   THE   PNM   TRANSMISSION   SERVICE**  
2       **ARRANGEMENTS FOR BROADVIEW, GRADY AND EL CABO.**

3   **A.**   PNM has four executed Transmission Service Agreements (“TSA”) totaling 542  
4       MW (i.e., 297 MW + 75 MW + 170 MW as shown in PNM Table JRM-1) that  
5       will be used in association with these wind projects for delivery to Four Corners.  
6       PNM is in the process of completing technical studies to offer an additional 168  
7       MW of transmission service on the EIP line which will result in a total  
8       commitment of 710 MW (i.e., 542 MW + 168 MW). The addition of these wind  
9       farms, along with the existing wind farms, will result in over 1,000 MW of  
10      requested service on the EIP line, which exceeds the thermal line limitation of the  
11      EIP line. As a result, PNM will be installing a voltage support device, a Static  
12      VAR Compensator (“SVC”), to the EIP line scheduled to be in-service in March  
13      2018 to accommodate these projects’ transmission service needs. In addition, a  
14      synchronous condenser (i.e., essentially a generator without the turbine to provide  
15      synchronous current compensation) will be required at Blackwater station to offer  
16      the remaining 168 MW of transmission service (Grady additional 125 MW and El  
17      Cabo 43 MW) as discussed above.

18  
19      The Broadview wind farm (297 MW) will start to take transmission service on  
20      December 1, 2016. The Grady wind farm (200 MW) will start to take  
21      transmission service when the synchronous condenser is installed. El Cabo will  
22      utilize 75 MW of transmission service by purchasing short term transmission  
23      service starting in April 2017 and ramping up to 75 MW, a level that will be

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1 maintained until the SVC is in-service in March 2018. At that time, El Cabo will  
2 be able to utilize its 170 MW of transmission service plus an additional 43 MW of  
3 transmission service for a total of 213 MW.

4  
5 **Q. PLEASE DESCRIBE THE PNM DISTRIBUTION SYSTEM.**

6 **A.** By definition, PNM's distribution system begins at distribution substations, which  
7 are connected to a 115 kV, 69 kV or a 46 kV sub-transmission line. Within the  
8 substations, transformers step down the transmission voltage to distribution  
9 system voltage levels for delivery to end users. PNM has approximately 179  
10 distribution substation transformers that typically range in size from 42 MVA  
11 down to 1 MVA.

12  
13 **Q. WHAT GEOGRAPHIC AREA IS COVERED BY PNM'S DISTRIBUTION**  
14 **SYSTEM?**

15 **A.** The distribution substations are spread over a large geographic area of New  
16 Mexico which includes:

- 17 • Clayton
- 18 • Las Vegas
- 19 • Albuquerque
- 20 • East Mountain area of Bernalillo Co.
- 21 • Los Lunas, Belen and portions of Valencia Co.
- 22 • Santa Fe and portions of Santa Fe Co.
- 23 • Rio Rancho and portions of Sandoval Co.
- 24 • Portions of McKinley Co.
- 25 • Ruidoso, Tularosa, Alamogordo and portions of Otero Co.

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- Deming and portions of Luna Co.
- Lordsburg, Silver City and portions of Grant Co.

**Q. HAS PNM UPDATED ITS DISTRIBUTION OVERHEAD AND UNDERGROUND CONDUCTOR FOOTAGE REPORT SINCE THE REPORT FILED IN PNM'S LAST RATE CASE, NMPRC CASE NO. 15-00261-UT?**

**A.** Yes. PNM has updated its conductor footage report to reflect the current primary and secondary overhead and underground footages, broken down by Northern and Southern Divisions. The updated report is presented in PNM Exhibit JRM-3.

**Q. WHAT ARE THE GENERAL OPERATING PARAMETERS FOR PNM'S DISTRIBUTION SYSTEM?**

**A.** The distribution system is typically a radial system arranged like branches on a tree such that customers have a single source of power. This is the most common system layout in suburban and rural areas. Nominal voltage levels for PNM's primary distribution system range from 23 kV to 4,160 V. The largest portion of PNM's primary distribution system utilizes a 12.47-7.2 kV design voltage. Distribution class transformers then further reduce the primary distribution system voltages to service voltages between 120 V to 480 V for delivery to end users. The distribution system from the distribution class transformers to the end user is referred to as the secondary distribution system. PNM also utilizes a 480 V network system to serve portions of downtown Albuquerque. In the case of some

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larger customers, PNM directly connects customer-owned primary distribution facilities to PNM's primary distribution system at either the substation transformer or to the primary distribution feeder through a primary metered service.

**IV. T&D CAPITAL INVESTMENT PROCESS**

**Q. HOW DOES PNM DETERMINE WHEN AND WHERE TO MAKE CAPITAL INVESTMENTS TO EXPAND OR REINFORCE ITS TRANSMISSION SYSTEM?**

**A.** Transmission planners are continually analyzing the performance of the current system and the need for future system improvements to ensure that electricity can be reliably delivered consistent with the North American Electric Reliability Corporation ("NERC") and Western Electricity Coordinating Council ("WECC") requirements, and NMPRC Rule 560. PNM uses a ten-year horizon for transmission and distribution planning. Plans are updated annually in advance of the budgeting process.

**Q. PLEASE EXPLAIN THE ROLE OF NERC WITH RESPECT TO PNM'S TRANSMISSION PLANNING AND OPERATIONS.**

**A.** NERC is a not-for-profit international regulatory authority whose mission is to ensure the reliability of the bulk transmission system in North America. NERC develops and enforces system Reliability Standards under the authority of FERC,

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1 performs annual assessments of seasonal and long-term reliability, monitors the  
2 bulk power system through system awareness, and educates, trains, and certifies  
3 industry personnel. NERC's area of responsibility covers the bulk transmission  
4 systems in the continental United States, Canada, and the northern portion of Baja  
5 California, Mexico which serve more than 334 million people. NERC is the  
6 electric reliability organization for North America, subject to oversight by the  
7 FERC and governmental authorities in Canada. NERC's jurisdiction includes  
8 users, owners, and operators of the bulk transmission system.

9  
10 **Q. WHAT ROLE DOES WECC PLAY?**

11 **A.** WECC is one of nine regional electric reliability councils under NERC authority  
12 and is the largest regional entity. The WECC region encompasses the entire  
13 Western Interconnection, which comprises the states of Washington, Oregon,  
14 California, Idaho, Nevada, Utah, Arizona, Colorado, Wyoming, portions of  
15 Montana, South Dakota, New Mexico and Texas in the United States, the  
16 Provinces of British Columbia and Alberta in Canada, and a portion of Mexico's  
17 *Comisión Federal de Electricidad* system in Baja California. The Western  
18 Interconnection is tied to the Eastern Interconnection through seven high-voltage  
19 direct current transmission facilities. WECC develops and implements Regional  
20 Reliability Standards and WECC Regional Criteria for the Western  
21 Interconnection.



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1 In addition, WECC formed a new not-for-profit entity called “Peak Reliability”  
2 that began operation on January 1, 2014. Peak Reliability was formed to assume  
3 and carry out the NERC registered functions of Reliability Coordinator and  
4 Interchange Authority for the Western Interconnection.

5  
6 PNM’s transmission system is subject to NERC and WECC jurisdiction and PNM  
7 must make necessary capital investments and O&M expenditures to meet NERC  
8 and WECC standards, which in turn are subject to oversight by FERC.

9  
10 **Q. PLEASE ELABORATE ON PNM’S TRANSMISSION PLANNING**  
11 **PROCESS.**

12 **A.** PNM transmission planners perform modeling and simulations of PNM’s  
13 transmission system to determine its operating capabilities. The system  
14 limitations are then compared to the present and forecasted loads of PNM’s retail  
15 and wholesale customers, if any, and its transmission customers. NERC  
16 reliability standards and other industry practices guide these analyses to ensure  
17 electricity can be delivered adequately and securely. As potential system  
18 deficiencies are identified, such as over- or under-voltages or overloads of  
19 equipment, alternative solutions are identified. These alternative solutions may  
20 include the development of new or different operating procedures, the addition of  
21 voltage supporting devices, upgrades to substation or line termination equipment,  
22 the reconductoring of lines, or the construction of new lines. Alternatives are

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1 prioritized in accordance with their ability to solve system issues, to be  
2 implemented in the timeframe needed and to provide the lowest lifecycle cost.

3  
4 PNM also continually assesses the useful service life of significant components of  
5 its transmission system. In some cases the equipment (e.g., relays, breakers,  
6 transmission cross arms) may become functionally obsolete because it has  
7 reached the end of its useful life based on the number of operating cycles, higher  
8 than planned maintenance costs, the need to meet updated compliance obligations,  
9 or when repair parts are no longer available. PNM's T&D capital budget includes  
10 funding for replacing critical equipment that has reached the end of its useful  
11 service life.

12  
13 **Q. HOW DOES THE DISTRIBUTION PLANNING FUNCTION IDENTIFY**  
14 **SPECIFIC CAPITAL EXPANSION NEEDS?**

15 **A.** Distribution planning evaluates the primary distribution system by comparing the  
16 present and forecasted customer loads of the different retail customer service  
17 areas against system limitations to determine the need for and timing of system  
18 improvement projects. The objectives of these projects are to ensure compliance  
19 with NMPRC Rule 560, the requirements of the American National Standards  
20 Institute, the National Electrical Safety Code and PNM's own distribution  
21 planning criteria. Project drivers are based on assuring that safe and reliable  
22 electric service to customers is provided within established voltage and equipment  
23 loading criteria for normal and emergency conditions. Alternative solutions are

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1 evaluated with the lowest reasonable cost solution recommended for  
2 implementation in the PNM T&D capital budget. Recommendations typically  
3 consist of one or more of the following possible solutions (from lowest to highest  
4 potential cost):

- 5 • Reconfiguring the system service within an area by changing open points;
- 6 • Balancing connected load along the distribution feeder;
- 7 • Installing capacitors for voltage improvement and power factor correction;
- 8 • Installing voltage regulators to maintain voltage criteria;
- 9 • Upgrading existing overhead conductor/underground cable;
- 10 • Adding new overhead conductor/underground cable;
- 11 • Constructing a new feeder from a substation; and
- 12 • Adding a new substation and/or feeders within a service area.

13  
14 **Q. HOW ARE ALTERNATIVE T&D SOLUTIONS EVALUATED?**

15 **A.** The process starts with an evaluation of the feasibility of the planning alternatives  
16 for any known permitting/environmental restrictions. The options resulting from  
17 this evaluation are then assessed to identify issues that could affect project  
18 viability. Such issues may include difficulty reconciling project schedules and  
19 budgets with necessary permitting and procurement requirements and lead times,  
20 required public input processes, or with National Environmental Policy Act  
21 compliance requirements. Cost estimates used in the feasibility stage of planning,  
22 and for comparison between alternatives, are based upon standardized station  
23 designs, estimated line mileages, PNM cost data that are periodically updated, and

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1 PNM distribution construction standards. For alternatives that are not typical  
2 installations on PNM's system, PNM may employ consultants, vendors, and  
3 contractors to assist in providing cost estimate information. For example, high-  
4 level right-of-way costs are based on the number of property owners, lot sizes and  
5 recent sales information. Estimates are then calibrated by comparing the cost of  
6 recent similar installations on the PNM system.

7  
8 Final cost estimates used for project funding include project and site-specific  
9 considerations. These include the selection of a specific parcel of land or line  
10 route, identification of permitting and environmental restrictions, development of  
11 the design in terms of site layout, span lengths, and typical structure heights, and  
12 securing current vendor quotes for major equipment. In addition, a timeline for  
13 the project is prepared based upon time frames for permitting, right-of-way  
14 acquisition, engineering and design, lead times for material and equipment  
15 procurement, and construction schedules.

16  
17 **Q. DOES PNM HAVE A PROCESS FOR PRIORITIZING ITS T&D**  
18 **CAPITAL INVESTMENTS?**

19 **A.** Yes, PNM recognizes the challenges associated with delivering safe and reliable  
20 power as efficiently as possible and that the Company must therefore make  
21 decisions about which projects identified in the planning process it can fund. A  
22 prioritization methodology has been developed to ensure that the most critical  
23 projects are funded first. The highest priority projects include those that:

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- 1           • Address safety issues;
- 2           • Are being built to comply with regulatory/environmental/contractual
- 3           requirements;
- 4           • Mitigate an unacceptable reliability risk;
- 5           • Are being built to satisfy PNM's obligation to serve;
- 6           • Provide benefits that are clearly evident either operationally or
- 7           economically (or both) and there is a notable downside risk if not
- 8           completed; and
- 9           • Are currently underway and subject to re-evaluation.

10

11           Through this prioritization process, PNM develops a list of capital projects that is

12           reviewed by business unit management and consolidated with projects from other

13           business units. A final capital investment plan is prepared and submitted to senior

14           management for consideration and approval.

15

16   **Q.   DOES PNM TYPICALLY MEET THE FORECASTED IN-SERVICE**

17   **DATES FOR ITS T&D CAPITAL PROJECTS?**

18   **A.**   Yes. PNM meets the planned in-service date for the vast majority of its projects.

19           However, in some instances, unforeseen events have caused PNM to redirect

20           manpower and capital toward other emergent projects which results in carry-over

21           of projects. PNM's budgets for capital expansion are based upon a portfolio of

22           projects needed to maintain reliability and serve new customers.

23

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**Q. IS FLEXIBILITY SOMETIMES REQUIRED WITH RESPECT TO THE IMPLEMENTATION OF T&D PROJECTS?**

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

**Q. PLEASE DESCRIBE HOW TRANSMISSION CAPITAL PROJECTS ARE ESTIMATED.**

**A.** Depending on the complexity of the project, PNM assembles data from a variety of sources to develop cost estimates for transmission line and station system improvements. Initially, various technical solutions and/or locations are

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1       evaluated at a high level for feasibility. Considerations include ability to permit,  
2       land rights acquisition, technical performance, ability to meet the desired  
3       schedule, and total long-term ownership costs. Once the preferred solution is  
4       identified, more detailed estimates are developed. For many projects, PNM has  
5       significant information available from recent similar projects. As part of its  
6       ongoing project management practices, PNM reviews historical pricing for trends  
7       and potential efficiencies.

8  
9       **Q.   DOES PNM USE INFORMATION OTHER THAN HISTORICAL DATA**  
10       **IN ITS CAPITAL COST ESTIMATES FOR TRANSMISSION**  
11       **PROJECTS?**

12       **A.**   Yes. PNM uses various reliable sources as a basis for its transmission project  
13       estimates, such as market value analysis to determine land costs. For material,  
14       equipment and construction services, PNM contracts with vendors for updated  
15       costs. For complex projects, a consultant will typically be engaged to prepare  
16       construction costs estimates.

17  
18       **Q.   WHAT ARE SOME OF THE SOURCES USED FOR ESTIMATING**  
19       **COSTS ASSOCIATED WITH NECESSARY LAND USE FOR CAPITAL**  
20       **PROJECTS?**

21       **A.**   Every project that PNM constructs has a land right associated with it. Depending  
22       on the project and the land ownership, this right can take various forms such as  
23       licenses, permits, easements, leases or purchase of land in fee. With regard to

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1 projects on public lands, PNM's staff maintains relationships with local, tribal,  
2 state, and federal land-use agencies. When a project is developed that will  
3 involve land or land-use managed by these agencies, PNM will informally discuss  
4 the specific project to understand the requirements that must be met as well as the  
5 typical schedule for submission and approval of a permit. Costs for anticipated  
6 mitigation efforts are included in the project estimate. When acquisition of land is  
7 required, PNM staff will review comparable sales in an area, and when necessary,  
8 secure formal appraisals. Estimates also include any support costs associated with  
9 land rights acquisition such as surveys, re-platting, environmental studies, and  
10 contract reviews.

11  
12 **Q. HOW ARE COSTS FOR TYPICAL MAJOR EQUIPMENT ESTIMATED?**

13 **A.** PNM has entered into several long-term purchasing agreements for equipment  
14 that is standard to the PNM system. These long-term agreements address medium  
15 voltage transformers (115 kV/12.47 kV), metal enclosed switchgear, power circuit  
16 breakers, tubular steel structures, wood poles, 115 kV disconnect switches and  
17 transmission class relays. The use of long-term agreements helps maintain a  
18 standard design throughout the system, provides flexibility in securing production  
19 slots in timely manner, and pricing stability. Long-term agreements are reviewed  
20 on a regular basis and compared to market conditions. PNM stays abreast of  
21 factors that might affect pricing, such as cost of fuel and changes in availability of  
22 raw metals. These agreements provide a resource used in cost estimation for  
23 typical equipment to be used in a project.



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1   **Q.   WHAT RESOURCES DOES PNM USE FOR ESTIMATING THE COST**  
2       **OF NON-TYPICAL EQUIPMENT?**

3   **A.**   For specialty equipment that is not routinely purchased by PNM, as part of the  
4       estimating process we often contact vendors to secure budgetary costs and lead  
5       times. Other utilities with similar installations may be interviewed and  
6       information is also secured through industry groups such as The Institute of  
7       Electrical and Electronics Engineers. As the project matures, formal Requests for  
8       Information (“RFIs”) and/or Requests for Proposals (“RFPs”) are issued. The  
9       responses to the RFI and RFP are used to select the most responsive vendor(s).  
10      Autotransformers are one of the items purchased through an RFP process. For  
11      some specialty equipment and construction projects, PNM will engage consultants  
12      to develop a detailed cost estimate.

13  
14   **Q.   HOW ARE CONSTRUCTION COSTS FOR CAPITAL T&D PROJECTS**  
15       **ESTIMATED?**

16   **A.**   Construction may be performed with either in-house personnel or with  
17       experienced contractors. Part of the estimating process includes a decision about  
18       who will perform the various construction activities. For in-house work, costs are  
19       estimated by the number of days the job is expected to take, size of crew, and job  
20       skills needed. For contracted work, PNM may discuss the project with  
21       contractors familiar with utility construction, or engage consultants as referenced  
22       above. Considerations in the cost of construction include local versus out-of-town  
23       work, new construction versus system upgrades, availability of specialty

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1 contractors in the time frame needed, and the potential need to work extended  
2 hours or weekends to accommodate system conditions.

3  
4 **Q. HOW ARE ENGINEERING AND CONSTRUCTION MANAGEMENT**  
5 **COSTS ESTIMATED?**

6 **A.** Engineering and construction management may be performed by either PNM  
7 personnel or outside consultants. Typically consultants are used to supplement  
8 PNM's staff during periods of high workload or for very specialized projects  
9 when unique knowledge is required. For in-house support, the engineering and  
10 construction management are estimated as a percentage of the equipment and  
11 construction costs. For external support, consultants may be contacted for high-  
12 level estimates or existing unit rates, and an estimate of hours and skills is  
13 applied.

14  
15 **Q. DOES PNM INCLUDE COST LOADS IN ITS CAPITAL COST**  
16 **ESTIMATES?**

17 **A.** Yes. Project estimates include applicable utility loads and overhead. The loads  
18 applied to capital projects are discussed by PNM Witness Monroy.

19  
20 **Q. PLEASE DESCRIBE THE ESTIMATING PROCESS FOR**  
21 **DISTRIBUTION CAPITAL PROJECTS.**

22 **A.** Similar to larger transmission and substation projects, distribution line  
23 construction projects begin by determining the routing of a project considering the

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1 overall project objective. Once the route is determined, an engineer or designer  
2 prepares a map of the proposed route. From the PNM designer's conceptual  
3 design, the necessary equipment, structures and material required to meet the  
4 objectives of the project are determined. Most distribution structure and  
5 equipment configurations are fairly common and standard drawings and material  
6 lists have been developed.

7  
8 The materials and standard construction configurations used are vetted by PNM's  
9 Distribution Standards Department to ensure facilities are constructed to meet  
10 current National Electrical Safety Code requirements and the designs are in line  
11 with industry norms. From these standard drawings "Compatible Units" have  
12 been created in our work management system. The designer uses the Compatible  
13 Units to construct the design map for the project. The work management system  
14 generates a complete material list and an estimate of the construction man-hours  
15 necessary to construct the project. The system will apply the current material  
16 costs and specific labor rates to determine the PNM labor cost to construct the  
17 project.

18  
19 **Q. HOW ARE OUTSIDE CONTRACTOR COSTS ESTIMATED?**

20 **A.** The PNM project manager will also identify the tasks that will be performed by a  
21 contractor if necessary. Contractor work typically includes the trenching or  
22 boring for underground distribution projects, as well as traffic control, removal  
23 and replacement of landscaping, asphalt and sidewalks, and tree trimming. The

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1 designer arranges to receive quotes for these tasks from approved PNM  
2 contractors.

3  
4 **Q. HOW ARE FINAL ESTIMATED COSTS FOR DISTRIBUTION CAPITAL**  
5 **PROJECTS DETERMINED AND REVIEWED?**

6 **A.** Costs for contractor work along with labor, material, right-of-way acquisition, and  
7 any necessary environmental surveys or permitting work are entered into PNM's  
8 work management system. The work management system is a program used by  
9 PNM that compiles all the direct costs and applies labor rates and applicable  
10 loadings to calculate a final cost estimate. PNM employs a peer review process  
11 for distribution construction estimates. The review is usually conducted by a  
12 principal or senior level engineer. In addition, the work is reviewed by the  
13 appropriate level manager prior to authorization for construction. Finally, PNM  
14 seeks input during the final design review through construction phases of the  
15 process from other internal stakeholders such as system engineering, operations,  
16 construction, land services, environmental, regulatory and others as needed as part  
17 of a regularly scheduled meeting referred to as the "NM Ops Project Management  
18 Focus Review".

19  
20 **Q. DOES PNM TAKE STEPS TO ENSURE THAT ITS MATERIAL COSTS**  
21 **ARE REASONABLE?**

22 **A.** Yes. Material costs are kept low by PNM having an agreement with a wholesale  
23 material supplier that provides the bulk of materials for distribution construction.

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1 PNM uses this supplier because this supplier also supplies materials to many other  
2 utilities and consequently has much greater buying power than PNM, helping to  
3 keep costs low. The agreement with this supplier also enables PNM to reduce its  
4 on-site stock, which is primarily used for responding to emergency work. The  
5 supplier has a local warehouse in Albuquerque and is required to keep minimum  
6 stock on hand to achieve a prerequisite availability rate of materials for PNM  
7 based upon PNM's historical usage. PNM notifies the supplier in advance of  
8 major orders to help keep lead times to a minimum.

9  
10 As construction work orders are approved and scheduled for construction,  
11 purchase orders are created by PNM's Procurement Department for the wholesale  
12 supplier who delivers the materials to PNM's local warehouse to meet PNM's  
13 construction schedule. The agreement with the supplier has certain dynamic  
14 elements, namely a markup PNM pays the supplier. The markup is a function of  
15 PNM's purchase volume but remains within the percentage range as stated in  
16 PNM's contract with that supplier; the greater the volume the lower the markup,  
17 the less the volume the greater the markup. PNM performs a random quarterly  
18 audit of the supplier's pricing to verify its acquisition costs and mark-ups are  
19 appropriate. In addition, PNM reviews purchase volumes on a quarterly basis  
20 and, if appropriate based on shifts in total purchases, mark-ups are adjusted.  
21 When price trends move significantly, PNM will also survey the market to  
22 benchmark the supplier's pricing.  
23

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1   **Q.   WHAT ARE SOME OF THE FERC COST TYPES THAT ARE USED IN**  
2       **THE BUDGETING FOR CAPITAL PROJECTS?**

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

6  
7       110 and 120; Internal labor: This includes all labor performed by PNM  
8       employees from permitting through project commissioning. As mentioned above,  
9       an 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; Materials and Equipment: This cost type includes all minor materials and  
14      equipment which are typically purchased as a stock item from a vendor or  
15      material provider. It includes items that PNM or its materials provider routinely  
16      stocks or can acquire quickly. Examples include aluminum bus and fittings,  
17      disconnect switches, wood poles, insulators, conductor, distribution transformers,  
18      relays, control cable, and grounding materials.

19  
20      370; Outside Services: This cost type includes all professional services as well as  
21      construction services. Professional services may include surveying, appraisal  
22      support, engineering, materials testing, and construction monitoring. This cost  
23      type also includes the purchase of specialty engineered equipment or site specific

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1 items such as autotransformers, medium voltage transformers, metal enclosed  
2 switchgear, and transmission class tubular steel poles.

3  
4 805; Land Rights: This cost type includes the purchase and/or fees for land,  
5 easements, leases, permits, and licenses.

6  
7 **V. T&D CAPITAL PROJECTS DURING THE CAPITAL INVESTMENT**  
8 **PERIOD AND COST DRIVERS**

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

11 **A.** In this section of my testimony, I address PNM's most significant capital  
12 investments for T&D facilities during the Capital Investment Period and provide  
13 the justification for making these investments. Tier 1 specific and blanket capital  
14 projects are addressed in detail below. Lists of all T&D projects are attached to  
15 my testimony as PNM Exhibits JRM-4 to JRM-9. PNM has undertaken a capital  
16 investment program focused on addressing the key needs of regulatory  
17 compliance, safety and security, reliability, operational efficiency and aging  
18 infrastructure.

19  
20 **Q. WHAT ARE THE TOTAL PNM T&D CAPITAL CLEARINGS**  
21 **THROUGH THE END OF THE CAPITAL INVESTMENT PERIOD?**

22 **A.** PNM's total T&D capital budget through the end of the Capital Investment Period  
23 is \$384,489,455. PNM T&D's capital investment clearings anticipated during the

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Capital Investment Period are summarized on Table JRM-2. Included in the totals presented is PNM's share of jointly owned projects.

**Table JRM-2  
T & D Capital Budget**

Business Segment	Distribution			Transmission			Grand Total by Tier
Linkage and Test	Specific projects	Blankets	Total by Tier	Specific projects	Blankets	Total by Tier	
Tier 1	\$ 51,917,805	\$ 98,416,764	\$ 150,334,569	\$ 178,399,316	\$ 11,206,269	\$ 189,605,585	\$ 339,940,154
Tier 2	\$ 12,411,477	\$ 16,165,797	\$ 28,577,274	\$ 10,934,187	\$ 2,138,694	\$ 13,072,881	\$ 41,650,155
Tier 3	\$ 625,994	\$ 1,423,119	\$ 2,049,113	\$ 626,710	\$ 223,323	\$ 850,033	\$ 2,899,146
Total	\$ 64,955,276	\$ 116,005,680	\$ 180,960,956	\$ 189,960,213	\$ 13,568,286	\$ 203,528,499	\$ 384,489,455

The above figures represent the total of PNM's T&D capital expenditures for the Capital Investment Period. The jurisdictional allocations of these expenditures are discussed by PNM Witness Monroy.

**Q. PLEASE DESCRIBE WHAT IS MEANT BY A "BLANKET" CAPITAL INVESTMENT.**

**A.** Blanket capital investments include labor for design and installation, materials, permitting and right-of-way acquisition. These investments could be for new, upgrade, replacement and relocation of electric transmission and distribution facilities to enable continued and new service to residential and non-residential customers. Blanket capital expenditures include items too numerous to list individually, but generally include: transformers, primary and secondary wires and cables, meters, poles and supporting structures, trenches, overhead and underground switches and duct systems.



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1       Transmission Blanket projects include PNM's share of investments in jointly-  
2       owned transmission projects identified earlier in my testimony. Transmission  
3       blankets also include funding for smaller projects with a cost of less than  
4       \$100,000 per project. The typical need for these projects is updating,  
5       replacement, or rehabilitation of failing, outdated or obsolete equipment and  
6       structures. Examples of this work include transmission structures, relays and  
7       other control devices, system communications devices, instrument transformers,  
8       disconnect switches, and grounding replacement.

9  
10       Distribution Blanket projects include line extensions for new and upgraded  
11       services, removal and replacement of failing equipment, relocation of facilities for  
12       road widening projects, minor system improvements, transformer purchases,  
13       meter purchases, installations and replacements, cable and pole replacements and  
14       streetlights.

15  
16   **Q.   PLEASE DESCRIBE WHAT IS MEANT BY "SPECIFIC" CAPITAL**  
17   **PROJECTS.**

18   **A.**   Specific capital projects generally are valued at over \$100,000 and are unique in  
19       nature and therefore do not fall into a blanket category. The specific capital  
20       projects include labor for design and installation, materials, permitting and right-  
21       of-way acquisition for new and upgraded distribution or transmission facilities  
22       and/or equipment. Examples of specific capital projects include transmission

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1 lines, substations, switchyards, large distribution feeder extensions and larger  
2 equipment replacements or upgrades.

3  
4 **Q. PLEASE DESCRIBE WHAT IS MEANT BY THE PROJECT TIERS.**

5 **A.** For purposes of this rate case, capital projects are categorized into three groups or  
6 “tiers” based on dollar amount during the Capital Investment Period. Tier 1  
7 projects include those individual capital projects whose Capital Investment Period  
8 value is equal to or greater than \$750,000. The T&D Tier 1 capital projects  
9 (Specific and Blankets) represent 88.4% of the total capital T&D investment  
10 clearings during the Capital Investment Period. Tier 2 projects include those  
11 individual capital projects whose Capital Investment Period value is between  
12 \$100,000 and \$750,000. Tier 3 projects include those individual capital projects  
13 whose Capital Investment Period value is less than or equal to \$100,000.

14  
15 **Q. PLEASE DESCRIBE WHAT INFORMATION PNM IS PRESENTING IN**  
16 **THIS CASE TO SUPPORT THE T&D CAPITAL PROJECTS.**

17 **A.** A description of the Capital Investment Period clearings by project identification  
18 number for all Tier 1, Tier 2 and Tier 3 T&D capital projects (Specific and  
19 Blanket) can be found respectively in PNM Exhibits JRM-4 to JRM-9. These  
20 exhibits are filed in hardcopy with this testimony and are also being provided in  
21 electronic format. Detailed project information including project justifications,  
22 estimated completion dates, alternatives reviewed and budget figures by cost type

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1 are hyperlinked from the project identification numbers in the electronic versions  
2 of PNM Exhibits JRM-4 through JRM-9.

3  
4 **Q. PLEASE DESCRIBE THE LARGEST T&D CAPITAL PROJECTS.**

5 **A.** The ten largest Tier 1 T&D capital projects are described as follows and comprise  
6 36.3% of the total for the Capital Investment Period:

7 1. Guadalupe Static VAR Compensator (SVC) (ID# 65009018); Anticipated  
8 clearings: \$36.6 million – This project provides the flexible voltage  
9 support needed to maximize the utilization of existing transmission assets  
10 by providing sufficient system voltage support to transfer up to 1,000 MW  
11 on the EIP line allowing PNM to partially fulfill pending requests for  
12 transmission service up to that limit. This project maintains PNM's  
13 compliance with mandatory NERC and WECC planning and operating  
14 standards.

15  
16 2. Second Transformer at Yah-Ta-Hey (ID# 65009014); Anticipated  
17 clearings: \$18.0 million – The addition of a second transformer has been  
18 planned as a result of planning studies which show that the loss of a single  
19 contingency outage of a major 345 kV or 230 kV transmission facility or  
20 the existing Yah-Ta-Hey transformer would violate NERC reliability  
21 criteria for equipment loading and low voltages. This project also includes  
22 expansion of the existing McKinley 345 kV station (jointly owned by  
23 PNM and TEP and operated by TEP) and a rebuild of the Yah-Ta-Hey 115

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1 kV station to interconnect the transformer. The transformers provide a  
2 connection between the McKinley 345 kV switching station and the  
3 adjacent Yah-Ta-Hey 115 kV switching station. TEP will be responsible  
4 for the construction activities in the McKinley Switchyard at PNM's cost.  
5 This project maintains PNM's compliance with mandatory NERC and  
6 WECC planning and operating standards.

7  
8 3. Clines Corners Station (ID# 65009117); Anticipated clearings: \$15.2  
9 million - This project is to construct a new 345 kV three-breaker ring  
10 configured switching station in association with the interconnection of a  
11 wind farm to the EIP line.

12  
13 4. Transformers Blanket (ID# 10000907); Anticipated clearings: \$14.1  
14 million – This blanket includes the purchase of distribution transformers  
15 for new customer line extensions, customer upgrades, and replacement of  
16 failed or damaged transformers. Distribution transformers reduce primary  
17 voltage levels to usable levels required by customers. Primary voltages  
18 range from 2,400 volts to 12,470 volts while secondary voltages generally  
19 range from 120 volts to 480 volts.

20  
21 5. Cabazon 345 kV Switching Station (ID# 65009017); Anticipated  
22 clearings: \$11.4 million – This project involves the construction of a new  
23 345 kV three-breaker ring configured switching station in association the

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1 interconnection of Tri-State's Torreon substation to the Cabezon station  
2 on PNM's San Juan-Rio Puerco 345 kV transmission line.

3  
4 6. ROW Clearing Project - Light Detection and Ranging (LiDAR) (ID#  
5 64807414); Anticipated clearings: \$10.1 million – This project collects  
6 mapping data on vegetation within PNM's rights-of-way via LiDAR. The  
7 imagery data is used to develop work management plans to clear  
8 transmission rights-of-way of all non-compatible vegetation in order to  
9 meet NERC reliability standards.

10  
11 7. Albuquerque Plant Unit Replacement Equipment (PURE) Project Blanket  
12 (ID# 10001707); Anticipated clearings: \$9.0 million – This project scope  
13 is identified through the Automated Line Patrols ("ALPS") process and  
14 provides funding for repairing and replacing aging overhead distribution  
15 construction components. There is a substantial quantity of work  
16 identified from past ALPS inspections and on-going inspections. This  
17 work is necessary to maintain reliable service and reduce hazards to the  
18 public and PNM line crews.

19  
20 8. LOW Station Implementation (ID# 65008216); Anticipated clearings: \$8.4  
21 million – This project addresses NERC physical security requirements by  
22 installing electronic access controls at each station identified in PNM's  
23 NERC CIP-002-5 procedure.

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1           9. Richmond Switching Station (ID# 65009013); Anticipated clearings: \$8.3  
2           million - This project is to provide additional transmission support to the  
3           Albuquerque area 115 kV transmission network to mitigate overloads on  
4           several 115 kV lines during single and double contingencies by adding an  
5           additional 115 kV looped source into the Sandia station. The project  
6           includes the construction of a new three-breaker ring switching station that  
7           loops in the Prager-North 115 kV line to the Sandia-North/Prager 115 kV  
8           line. This project addresses capacity limits and low voltages in the  
9           southeast Albuquerque area under contingency conditions necessary to  
10          maintain PNM's compliance with mandatory NERC and WECC planning  
11          and operating standards.

12  
13          10. Services Blanket (10000807); Anticipated clearings: \$8.2 million – This  
14          project includes the installation costs of overhead and underground service  
15          wires, and/or their connections, leading from the point where PNM wires  
16          leave the last pole or distribution box to the point of connection with  
17          residential or non-residential customers within Albuquerque and  
18          contiguous unincorporated areas of Bernalillo County. This project also  
19          includes removal costs for service retirements.

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1   **Q.     PLEASE GENERALLY DESCRIBE THE OTHER SPECIFIC T&D TIER 1**  
2       **CAPITAL PROJECTS.**

3   **A.**   All of the T&D Tier 1 capital projects are fully described and justified in PNM  
4       Exhibits JRM-4 and JRM-5. For purposes of my testimony, I have categorized  
5       the remaining T&D Tier 1 capital projects by subgroups based on their similar  
6       attributes and identified them by project name and number as described below:

7  
8       **Unit Substations:** The need for new or upgraded unit substations is driven by  
9       planning criteria as discussed earlier in my testimony. Replacement of  
10      substations is also driven by PNM's ability to meet performance criteria;  
11      however, given the age of some transformers, replacement of failed units is  
12      another driver. PNM's system is generally designed such that if one substation is  
13      out of service (planned or unplanned), the customer load can be supported by  
14      adjacent substations. Examples of Tier 1 unit substation projects include: San  
15      Clemente Station (ID# 60002912) and College Substation (ID# 60001714).

16  
17      **Distribution Feeders:** The need for new, upgraded, or extensions of distribution  
18      feeders is driven by distribution planning criteria as discussed earlier in my  
19      testimony. Examples of Tier 1 Distribution Feeder Projects include: San  
20      Antonito 12 to 22 Feeder Tie (ID# 14002014), Mejia 14 Estrada Calabasa Line  
21      Extension (ID# 41001915) and Downtown Manhattan Feeder Phase 2 (ID#  
22      41002115).

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1       **Compliance and Security:** Increasing requirements by governmental agencies  
2       have resulted in the need to invest in system improvements that enhance stability  
3       of the transmission grid and provide both physical and cyber security at several  
4       PNM facilities. In addition, PNM has experienced vandalism, equipment damage  
5       and metal theft at key substation sites. For these reasons, a pilot project followed  
6       by a formal program to detect and deter unauthorized activities has been  
7       undertaken. Examples of Tier 1 projects that are included in this group are: Low  
8       Station Implementation (ID# 65008216), Substation Remote Access (ID#  
9       64828113), Substation Security Upgrades (ID# 65007617), NERC Physical  
10      Security (ID# 65008117) and Station Hardening (ID# 65007514).

11  
12      **Replacement of Aging Infrastructure and Emergency Equipment Programs:**

13      PNM routinely maintains, inspects, and tests its facilities to assure the system can  
14      perform as originally planned as well as sustaining current system requirements.  
15      Over time, equipment and structures can become functionally obsolete, require  
16      significant on-going maintenance, may fail to meet current compliance or power  
17      quality requirements, or fail to perform. PNM reviews the need and timing for  
18      replacement of this equipment through its field inspection programs, technical  
19      expertise and industry knowledge. PNM then develops prioritized programs for  
20      the replacement of this equipment.

21  
22      Recent programs include breaker replacements, distribution underground cable  
23      life extensions and system communications upgrades. In response to long lead



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1 times and the need to replace failed equipment quickly, PNM has developed an  
2 emergency equipment inventory program with certain key equipment. Typical  
3 equipment purchased and staged through this program includes a unit substation  
4 transformer, 115 kV disconnect switches, surge arrestors, and relays. Examples  
5 of Tier 1 distribution projects that are related to aging infrastructure and  
6 emergency equipment include: Santa Fe Switchgear Replacements (ID#  
7 60001713), Emergency and Aging Equipment Distribution (ID# 60002313),  
8 12.47 kV Breaker Replacement (ID# 60002715) and Distribution Cable Testing  
9 and Replacement 2017 (ID# 60003117). Tier 1 transmission projects that are  
10 related to aging infrastructure and emergency equipment include: Alamogordo  
11 Replacement Capacitor Installation (ID# 22007514), 345 kV Wood Structure  
12 Replacement (ID# 64807113), Transmission Emergency and Aging Equipment  
13 (ID# 64807413), Transmission Breaker Replacement (ID# 64807513), 115 kV  
14 Breaker Replacement for Fault Current (ID# 64807713), Line Switch  
15 Replacement (ID# 65008217), Replacement of 345 kV Reactor (ID# 65008916),  
16 System Wide Relay Upgrades (ID# 65007718) and Northern Microwave  
17 Communications Upgrade (ID# 65008614).

18  
19 **Projects Due to Other Causes:** PNM needs to relocate certain distribution  
20 facilities located in public rights-of-way to accommodate the proposed City of  
21 Albuquerque Rapid Transit Project (“COA ART”). This Tier 1 project is  
22 identified as COA ART (ID# 10001715).

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**Q. PLEASE DESCRIBE THE SIGNIFICANT TIER 1 DISTRIBUTION  
BLANKETS TO BE COMPLETED THROUGH THE END OF THE  
CAPITAL INVESTMENT PERIOD AND THE FACTORS DRIVING THE  
NEED FOR EACH.**

**A.** The top four distribution blanket projects, representing 10.1% of the total T&D capital investment during the Capital Investment Period, are further detailed in PNM Exhibit JRM-5:

1. Transformers (ID# 10000907) Blanket; Anticipated clearings: \$14.1 million - This blanket includes the purchase of transformers for new customer line extensions, customer upgrades, and replacement of failed or damaged transformers. This blanket represents one of the top ten T&D capital projects during the Capital Investment Period.

2. Albuquerque PURE Project (ID# 10001707) Blanket; Anticipated clearings: \$9.0 million - This project scope is identified through the ALPS process and provides funding for repairing and replacing aging overhead distribution construction components. There is a substantial quantity of work identified from past ALPS inspections and on-going inspections. This work is necessary to maintain reliable service and reduce hazards to the public and PNM line crews. This blanket represents one of the top ten T&D capital projects.

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1           3. Services (ID# 10000807) Blanket; Anticipated clearings: \$8.2 million -

2           This blanket includes the costs of engineering, inspections, materials, and  
3           installation of service wires and equipment to provide service to  
4           residential and non-residential customers. This blanket also represents one  
5           of the top ten T&D capital projects.

6  
7           4. Line Extension - Commercial (ID# 10000207) Blanket: Anticipated

8           clearings \$7.7 million – This blanket project includes line extension  
9           design and installation costs to serve new or expanding commercial  
10          customers in Albuquerque and contiguous unincorporated areas of  
11          Bernalillo County. Costs include labor, outside services (contractors),  
12          materials and right-of-way acquisition. This blanket also represents one of  
13          the top ten T&D capital projects.

14  
15   **Q.     PLEASE SUMMARIZE THE REMAINING BLANKET PROJECTS IN**  
16   **TIER 1.**

17   **A.**    The following categories contain the remaining Tier 1 T&D blanket projects as  
18          further described in PNM Exhibits JRM-4 and JRM-5:

19  
20   **Meter Equipment Blanket:** This blanket includes meter purchases for new  
21          service, and replacement of meters, both planned (due to the vintage of the meter  
22          and/or results of periodic testing as required under NMPRC Rule 560) and  
23          unplanned due to vandalism or damage. Project includes ID# 10001007.

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1       **Line Extension Blankets:** These blanket projects provide for the installation cost  
2       of electric line extensions for new residential and commercial customers within  
3       the various regions of PNM's service territory. Projects include ID# 10000107,  
4       10000207 and 41000207.

5  
6       **System Improvement Blankets:** These blanket projects provide for numerous  
7       small miscellaneous distribution facility improvements to improve service and  
8       operation by providing voltage support, enhancing system protection, and  
9       maintaining or improving system reliability. Projects include ID# 10000707,  
10      15500707, 41000707, 50000707 and 89900707.

11  
12      **Remove and Replace Blankets:** These blanket projects include relocations of  
13      electric distribution facilities in road rights-of-way for road re-alignments or  
14      widening projects. The projects also include the removal and replacement of  
15      existing electric distribution facilities that have been damaged during storms or  
16      have deteriorated through normal aging. Projects include ID# 15500607,  
17      41000607 and 89900607.

18  
19      **Service Blanket:** This project (ID# 41000807) provides for the electrical  
20      connection of residential and non-residential customers' facilities to PNM's  
21      distribution system primarily within Santa Fe County.

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1       **Pole Replacement Blanket:** This project (ID# 10001207) is necessary to ensure  
2       the integrity of wood poles on PNM's distribution system in the Albuquerque area  
3       which support structures for overhead wires, transformers, and other equipment.  
4

5       **Cable Replacement Blanket:** This project (ID# 41001307) provides for the  
6       replacement of failing underground distribution cable in the Santa Fe area.  
7       Emergent cable replacements address those cables which experience failures of  
8       their insulation causing multiple outages over a short period of time and/or  
9       impacting a large number of customers.  
10

11       **Misc. Substation Improvements Blankets:** This includes projects ID#  
12       22007010 and ID# 65007010 for capital replacements or betterments at  
13       transmission stations. Typical work includes improved equipment clearances,  
14       switch operator ground mats, adding surge arrestors and replacement instrument  
15       transformers. Various tasks are undertaken to improve reliability, maintainability  
16       or enhance safety.  
17

18       **Substation Equipment Replacement IA Blankets:** This includes projects ID#  
19       60005910 and ID# 65007710 to replace or upgrade aging or obsolete transmission  
20       substation equipment on PNM's electric system. Some examples include  
21       replacing or upgrading substation transformer components such as primary  
22       bushings, load tap changer upgrades or replacements, replacing aging  
23       transmission circuit breakers, or upgrading aging equipment such as station

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1 arrestors, capacitor switching equipment, bus insulators, station capacitors,  
2 capacitive voltage transformers, and station battery replacements in transmission  
3 and distribution substations.

4  
5 **Misc. Transmission Blanket:** This project (ID# 65007110) includes multiple  
6 tasks which improve reliability, and helps PNM to maintain or enhance safe  
7 operation of transmission lines. The key betterments include replacement of  
8 damaged porcelain insulators with more robust non-ceramic insulators,  
9 installation of modular steel truss tops to replace failed wood cross-arms and  
10 braces, replacement of structures to provide enhanced clearances, and installation  
11 of new line sectionalizing switches to provide more reliable and safe switching  
12 operations.

13  
14 **San Juan-Vail Blanket:** This project (ID# 65006010) is for PNM's share of  
15 annual capital improvements or replacements associated with the San Juan-Vail  
16 Joint Transmission project. This work is performed to ensure continued reliable  
17 and safe performance of the transmission facility. PNM has a contractual  
18 obligation to TEP, the operating agent, to pay for the prorated costs of PNM's  
19 percent ownership. While specific replacements are not defined, typical work  
20 includes replacement of failed or functionally obsolete equipment such as  
21 breakers, capacitors, switches, and relays. Work might also include capital  
22 improvements to the lines such as vegetation management, access improvements  
23 to facilitate planned work as well as routine inspection, or structure replacements.

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1       Also, this would include capital improvements required to meet emerging NERC  
2       security requirements.

3  
4       **Q.     PLEASE CITE EXAMPLES OF HOW ESTIMATES WERE DERIVED**  
5       **FOR TIER 1 PROJECTS.**

6       **A.**     The Richmond Switching Station and the Yah-Ta-Hey 345/115 kV Transformer  
7       projects will be used as examples. The Richmond project was estimated by PNM  
8       System Engineering. A market value analysis was conducted to determine the  
9       land costs. Basic materials were estimated using actual costs of past projects. For  
10      major equipment like circuit breakers, PNM contacted vendors and requested  
11      price information regarding cost and schedules. Labor and contractor estimates  
12      were created from similar past projects, and for this project.

13  
14      The Yah-Ta-Hey second transformer project was estimated by a consultant due to  
15      the complexity of this project. The 345/115 kV autotransformer was  
16      competitively bid. For major equipment like circuit breakers, PNM contacted  
17      vendors and requested price information regarding cost and schedules. TEP  
18      provided a cost estimate for the interconnection facilities at the McKinley 345 kV  
19      station which was reviewed and agreed to by PNM.

20  
21      **Q.     YOU DISCUSSED IN SECTION IV OF YOUR DIRECT TESTIMONY**  
22      **THE NEED FOR FLEXIBILITY IN ADDRESSING CHANGES OR**  
23      **TRADE-OFFS     FOR     UN-PLANNED/UN-BUDGETED     CAPITAL**

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**EXPENDITURES. WHAT GENERAL TYPES OF ISSUES DRIVE UN-  
PLANNED CAPITAL PROJECTS THAT PNM MUST REGULARLY  
ADDRESS?**

**A.** It is not uncommon for PNM to have to address large equipment failures with little or no notice in order to maintain reliability of the system while continuing to serve load. New imposed compliance regulations and/or customer-driven capital investments can also drive unplanned projects. To maintain annual approved budgets, emergent projects can take precedence resulting in other planned projects being delayed.

**Q. IS PNM PROVIDING DOCUMENTATION JUSTIFYING TIER 2 & 3  
T&D CAPITAL PROJECTS?**

**A.** Yes. The Tier 2 and Tier 3 blanket and specific T&D projects are described and justified in PNM Exhibits JRM-6 through JRM-9. These projects make up approximately 11.6% of the T&D capital projects in the Capital Investment Period. The Tier 2 and Tier 3 capital blanket and specific projects are developed in the same manner as previously described for the purpose of addressing the key needs of regulatory compliance, safety and security, reliability, operational efficiency and aging infrastructure to serve PNM customers.



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1   **Q.    ARE THE T&D CAPITAL PROJECTS DESCRIBED IN YOUR**  
2       **TESTIMONY AND EXHIBITS NECESSARY FOR PNM TO MEET ITS**  
3       **SERVICE OBLIGATION?**

4   **A.    Yes. These projects and their associated costs are necessary for PNM to continue**  
5       to provide safe and reliable electric service to its New Mexico customers. In  
6       addition, many of these projects are required for regulatory compliance purposes.  
7       These projects have been carefully vetted and prioritized and the associated costs  
8       are reasonable.

9

10                   **VI.    O&M EXPENSES FOR T&D**

11   **Q.    WHAT ARE THE TYPICAL O&M EXPENDITURES ASSOCIATED**  
12       **WITH PNM'S T&D FACILITIES?**

13   **A.    O&M expenses for T&D include the labor expenses of PNM employees and**  
14       contract workers that directly support the functions that monitor and control the  
15       power system, schedule the outages and maintain and repair the stations, lines and  
16       equipment, trim the trees and brush, and perform system reliability,  
17       interconnection and engineering cost studies. In addition, O&M expenses include  
18       the amortization of T&D right-of-way acquisition costs, regulatory assessment  
19       fees and the cost of transmission of electricity by others (third-party transmission  
20       expenses).

21

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1    **Q.    WHAT IS THE PROCESS THAT PNM USES TO ESTABLISH ITS O&M**  
2       **BUDGET?**

3    **A.**    PNM's O&M budget development is a multi-step process. Each department  
4       within the PNM T&D organization reviews data from previous years and  
5       evaluates known changes. Each department then adjusts the projection based on  
6       historical data for known variances that typically include items such as scheduled  
7       maintenance work and additional contract studies, and inputs this information  
8       back into PNM's budgeting system and projects forward five years using standard  
9       escalation rates for these components. PNM Witness Monfiletto addresses the  
10      escalation rate for labor costs. Most non-labor costs are escalated as discussed by  
11      PNM Witness Monroy. Examples of categories that are reviewed are staffing  
12      levels, payroll (both straight time and overtime), outside services, employee  
13      expenses, equipment and materials. Senior management must review and approve  
14      the final O&M budget.

15

16   **Q.    WHAT IS THE BUDGETING PROCESS FOR JOINTLY-OWNED**  
17       **TRANSMISSION FACILITIES?**

18   **A.**    For the jointly-owned transmission facilities, the operating agent for each facility  
19       prepares an annual O&M budget proposal. The respective Engineering &  
20       Operating committees, on which PNM has representation, is presented the annual  
21       O&M budgets and votes on the approval of such budgets. PNM then internally  
22       budgets for these activities based upon the approved annual projected O&M  
23       budgets prepared by the operating agent. The operating agents are responsible for

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1 the necessary maintenance and repairs to the transmission facilities and invoice  
2 the other joint owners for their respective share of O&M costs.

3  
4 **Q. HOW DOES PNM MONITOR AND CONTROL ITS O&M COSTS?**

5 **A.** PNM manages its O&M expenditures by reviewing all aspects of its operations  
6 for savings. The Vice President of New Mexico Operations conducts  
7 management reviews of the O&M budget with department heads on a monthly  
8 and quarterly basis. The goal of these reviews is to monitor the expenditures and  
9 make sure that expenditures are prudent and within the expected amounts.  
10 Appropriate efforts are made to help ensure that the O&M expenditures remain on  
11 target.

12  
13 **Q. PLEASE DESCRIBE PNM'S O&M EXPENDITURES IN THE BASE**  
14 **PERIOD.**

15 **A.** The Base Period O&M expenditures are the actual O&M expenditures related to  
16 T&D functions during the twelve months ending June 30, 2016. These  
17 expenditures are the product of the rigorous budgeting and cost control measures I  
18 have described. PNM's methodology for forecasting O&M costs in the Test  
19 Period is discussed by PNM Witness Monroy.

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1   **Q.     PLEASE DESCRIBE THE THIRD-PARTY TRANSMISSION SERVICES**  
2           **PNM PURCHASES FROM OTHER TRANSMISSION PROVIDERS TO**  
3           **SERVE LOAD.**

4   **A.**    PNM purchases transmission service from APS, Tri-State, EPE and TEP to serve  
5           PNM load. The rates to PNM for transmission service purchased from these  
6           transmission service providers are fixed and approved by FERC. These costs are  
7           included in the work papers of PNM Witness Monroy. PNM also has  
8           transmission exchange agreements with WAPA under which PNM and WAPA  
9           provide transmission service to each other.

11   **Q.    PLEASE DESCRIBE THE TRANSMISSION SERVICES PNM**  
12           **PURCHASES FROM APS.**

13   **A.**    PNM has two transmission service agreements with APS for delivery of PNM's  
14           Palo Verde resources to New Mexico. The first is a non-OATT bilateral contract  
15           for a 130 MW path utilizing the Westwing to Four Corners path. PNM uses this  
16           transmission path to deliver 130 MW of its Palo Verde generation entitlement to  
17           its New Mexico transmission system as a network resource for service to PNM's  
18           native load customers. PNM utilizes an additional 10 MW of transmission  
19           service from APS under APS's OATT on the Kyrene to Four Corners. In  
20           addition, PNM has secured 135 MW of transmission service from APS (see PNM  
21           Exhibit JRM-10) to bring Palo Verde Unit 3 to Four Corners starting January 1,  
22           2018 as a PNM jurisdictional resource. PNM Witness Monroy includes this  
23           transmission cost in the Test Period.

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1   **Q.   PLEASE DESCRIBE THE TRANSMISSION SERVICES PNM**  
2       **PURCHASES FROM TRI-STATE.**

3   **A.**   PNM purchases NITS from Tri-State under its OATT to serve PNM's retail load  
4       in Clayton, New Mexico. PNM has interconnections with Tri-State at Ojo Station  
5       north of Santa Fe, New Mexico and at Storrie Lake, north of Las Vegas, New  
6       Mexico. PNM delivers power and energy to Tri-State at these interconnections  
7       for service to Clayton on Tri-State's transmission system.

8  
9   **Q.   PLEASE DESCRIBE THE TRANSMISSION SERVICES PNM**  
10       **PURCHASES FROM EPE.**

11   **A.**   PNM purchases firm long-term PTP transmission service under EPE's OATT as  
12       shown in Table JRM-3 below:

**Table JRM-3  
PNM Long-Term Transmission Service Provided By EPE**

<b>Firm PTP Transmission Services Provided to PNM by EPE</b>		
<b>Receipt</b>	<b>Delivery</b>	<b>Reservation</b>
West Mesa 345 kV	Amrad 115 kV	25 MW
Afton Generating Station	West Mesa 345 kV	30 MW
Afton Generating Station	Springerville 345 kV	94 MW
Afton Generating Station	West Mesa 345 kV	111 MW
Luna Generating Station	Springerville 345 kV	60 MW

14       PNM purchases 25 MW of firm PTP transmission service from EPE to deliver  
15       PNM network resources from PNM's interconnection with EPE at the West Mesa  
16       345 kV station to the Amrad station 115 kV interconnection to serve PNM's

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southeastern New Mexico retail loads. PNM purchases 141 MW (30 + 111 MW) of firm PTP transmission service from EPE to deliver a portion of the Afton Generating Station output from the EPE system to PNM's system at West Mesa. PNM also purchases an additional 154 MW (94 + 60 MW) of transmission service from EPE to deliver the remaining portion, 94 MW, of Afton Generating Station and 60 MW of Luna Generating Station to Springerville.

PNM also makes short-term firm purchases under EPE's OATT during the summer months to support system deliveries to Amrad from PNM's southern New Mexico system. In addition, PNM secures short-term firm purchases (see PNM Exhibit JRM-11) for incremental transmission from PNM's Luna plant in southwestern New Mexico to provide contingency and spinning reserves to cover other PNM generation contingencies. PNM Witness Monroy includes this transmission cost in the cost of service.

**Q. PLEASE DESCRIBE THE TRANSMISSION SERVICES PNM PURCHASES FROM TEP.**

**A.** PNM purchases 14 MW of firm PTP transmission service under TEP's OATT from San Juan to Greenlee to support system deliveries in southern New Mexico.

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1   **Q.   PLEASE DESCRIBE THE TRANSMISSION SERVICE EXCHANGE**  
2       **AGREEMENTS BETWEEN PNM AND WAPA.**

3   **A.**   The transmission service exchange agreements between PNM and WAPA are  
4       Contract 2425 and Contract P0695. Under Contract 2425, PNM provides WAPA  
5       140 MW of transmission service from Four Corners to West Mesa. In exchange,  
6       PNM receives from WAPA 84 MW of transmission service from Westwing to  
7       Four Corners. Under Contract P0695, PNM provides WAPA up to 107 MW of  
8       transmission service between Four Corners and various points of delivery on  
9       PNM's transmission system. In return, WAPA provides PNM 50 MW of  
10      transmission service from Westwing to Four Corners. The net effect of the two  
11      contracts is that PNM provides WAPA up to 247 MW of transmission service and  
12      receives 134 MW of transmission service from WAPA on the Westwing to Four  
13      Corners transmission path. PNM uses this transmission path to deliver 134 MW  
14      of its Palo Verde generation entitlement to its New Mexico transmission system  
15      as a network resource for service to PNM's native load customers.

16  
17               **VII.   SIGNIFICANT RIGHTS-OF-WAY RENEWALS**

18   **Q.   ARE THERE ANY SIGNIFICANT RIGHTS-OF-WAY RENEWALS**  
19       **ACROSS TRIBAL LANDS OR LANDS BEING HELD IN TRUST BY THE**  
20       **UNITED STATES PROJECTED DURING THE TEST PERIOD?**

21   **A.**   Yes, there are eight different transmission and three distribution rights-of-way  
22       renewals across sovereign Pueblo and tribal lands expiring that will need to be

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1 renewed. In addition to these eleven, PNM is currently amortizing thirty separate  
2 right-of-way accounts crossing the land of sixteen different entities which expire  
3 at varying times between 2016 and 2051. Twelve of these sixteen entities are  
4 Native American.

5  
6 **Q. WHY ARE THE FORECASTED RIGHTS-OF-WAY RENEWALS**  
7 **INCLUDED IN THIS CASE?**

8 **A.** PNM's system is situated across a significant amount of sovereign tribal and  
9 Pueblo lands. In accordance with federal regulations pertaining to rights-of-way  
10 across sovereign tribal lands, many of PNM's rights-of-way are restricted to a  
11 term of years and expire at varying times throughout the life of those system  
12 facilities. All of these rights-of-way are necessary to maintain and operate those  
13 facilities situated on native lands. Each facility serves an integral role in the  
14 continued operation of PNM's transmission and distribution systems to serve its  
15 customers.

16  
17 **Q. IS PNM FORECASTING THESE RIGHTS-OF-WAY RENEWAL COSTS**  
18 **IN THIS RATE CASE?**

19 **A.** Yes. The forecasted costs accrued for rights-of-way renewals in this rate case are  
20 reasonable and shown in the testimony of PNM Witness Monroy (See PNM  
21 Exhibit HEM-4; WP OM-15, WP OM-16 and WP OM-17). PNM forecasts  
22 estimated rights-of-way costs based on recent rights-of-way settlement  
23 agreements, which represent and incorporate current market and economic



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1 conditions. PNM's right-of-way renewals are prescribed by federal regulations  
2 and are administered through the United States Department of the Interior and the  
3 Office of the Special Trustee. Due to the unique circumstances associated with  
4 sovereign tribal and Pueblo lands, renewal costs are not necessarily uniform and  
5 future costs must be estimated. PNM has identified those rights-of-way that are  
6 set to expire during the Test Period and has analyzed the renewal costs.

7  
8 **Q. PLEASE DESCRIBE PNM'S ANNUAL RIGHT-OF-WAY PAYMENT TO**  
9 **THE NAVAJO NATION.**

10 **A.** In 2010, PNM reached an agreement with the Navajo Nation for the extension and  
11 renewal of twenty-one segments of various rights-of-way on 2,100 acres across  
12 Tribal Trust Lands for transmission, distribution, stations, and communications  
13 facilities. The agreement extended the term of each right-of-way until 2030. As  
14 part of the agreement and in consideration for these extensions, PNM agreed to  
15 pay the Navajo Nation \$6,000,000 annually subject to annual adjustment based  
16 upon increases in the Consumer Price Index.

17  
18 **Q. HAS PNM SUPPORTED ITS ESTIMATED COSTS FOR RENEWING ITS**  
19 **T&D RIGHT-OF-WAY AGREEMENTS?**

20 **A.** Yes. These are existing rights-of-way and PNM has significant experience in  
21 securing necessary renewals for its T&D systems. We have a proven process that  
22 we follow for right-of-way renewals that is being applied with respect to the  
23 renewals in question. Based on PNM's experience with right-of-way renewals,

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1 we have bona fide market data about the likely costs that will be incurred with  
2 respect to these right-of-way renewals. All of these factors inform PNM's cost  
3 estimates presented in this case, and form a reliable basis for use in establishing a  
4 cost of service for these expenses. From the settlements completed to date, PNM's  
5 payments are consistent with the overall estimate.

6  
7 **Q. ARE THE RIGHT-OF-WAY RENEWALS NECESSARY FOR THE**  
8 **PROVISION OF EXISTING T&D SERVICE TO PNM'S CUSTOMERS?**

9 **A.** Yes. The facilities located in the subject rights-of-way are vital components of  
10 PNM's T&D system and are imperative to providing reliable service to PNM  
11 customers throughout New Mexico. The expenses associated with the renewal of  
12 these rights-of-way are necessary for PNM to maintain the facilities on these  
13 properties and prevent PNM from incurring costly relocations of these facilities.  
14 PNM records expenses associated with right-of-way renewals at the estimated rate  
15 subject to true-up upon completion of the negotiations for the right-of-way.

16  
17 **Q. WHY IS IT APPROPRIATE TO INCLUDE THE TEST PERIOD RIGHT-**  
18 **OF-WAY RENEWAL PAYMENTS IN THE COST OF SERVICE FOR**  
19 **RECOVERY IN THIS CASE?**

20 **A.** PNM has endeavored to keep right-of-way expenses as reasonable as possible by  
21 engaging in good faith negotiations and is in the process of negotiating and  
22 finalizing the remaining outstanding right-of-way renewal agreements. Right-of-  
23 way expenses are a fundamental component of maintaining existing facilities

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1       which provide reliable service to customers and these right-of-way payments are  
2       projected to be paid by the end of the Test Period.

**VIII. CONCLUSIONS**

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

6       **A.**     Yes. PNM strives to minimize customer costs while providing a high degree of  
7       reliability in the delivery of electric service. The PNM T&D capital investments  
8       are prudent and necessary to provide electric service that is adequate to the needs  
9       of PNM's customers. These investments permit PNM to maintain its reliability  
10      performance by ensuring all appropriate industry reliability standards are met.  
11      PNM has a rigorous and structured process for identifying and prioritizing capital  
12      investment in advance of its need. Therefore, the Capital Investment Period costs  
13      are reasonable and necessary for safe and reliable service.

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

16      **A.**     Yes.

*GCG#522594*

Résumé of Jeff R. Mechenbier

# PNM Exhibit JRM-1

Is contained in the following 1 page

**PNM EXHIBIT JRM-1**

**Name:** Jeff R. Mechenbier

**Address:** Public Service Company of New Mexico  
414 Silver Ave SW  
Albuquerque, New Mexico 87102

**Position:** Director, Transmission and Distribution Planning and Contracts

**Education:** Bachelor of Science in Electrical Engineering, Power Systems,  
New Mexico State University, Las Cruces, New Mexico 1984

Master of Science in Electrical Engineering,  
Electric Utility Management Program,  
New Mexico State University, Las Cruces, New Mexico 1985

Utility Executive Course,  
University of Idaho, Moscow, Idaho 2006

**Employment:** Bonneville Power Administration, Portland, Oregon  
Transmission Planning Engineer, 1985-1996

Public Service Company of New Mexico, Albuquerque, New Mexico:  
Senior Engineer, Transmission Planning, 1996-1997

General Electric, Albuquerque, New Mexico:  
Senior Engineer, 1997-2000

Public Service Company of New Mexico, Albuquerque, New Mexico:  
Manager, Transmission Analysis, 2000-2006  
Director, Transmission Analysis, 2006-2008  
Director, Transmission and Dist. Planning and Contracts, 2008-Present

**Licensure:** Licensed Professional Engineer in the state of New Mexico

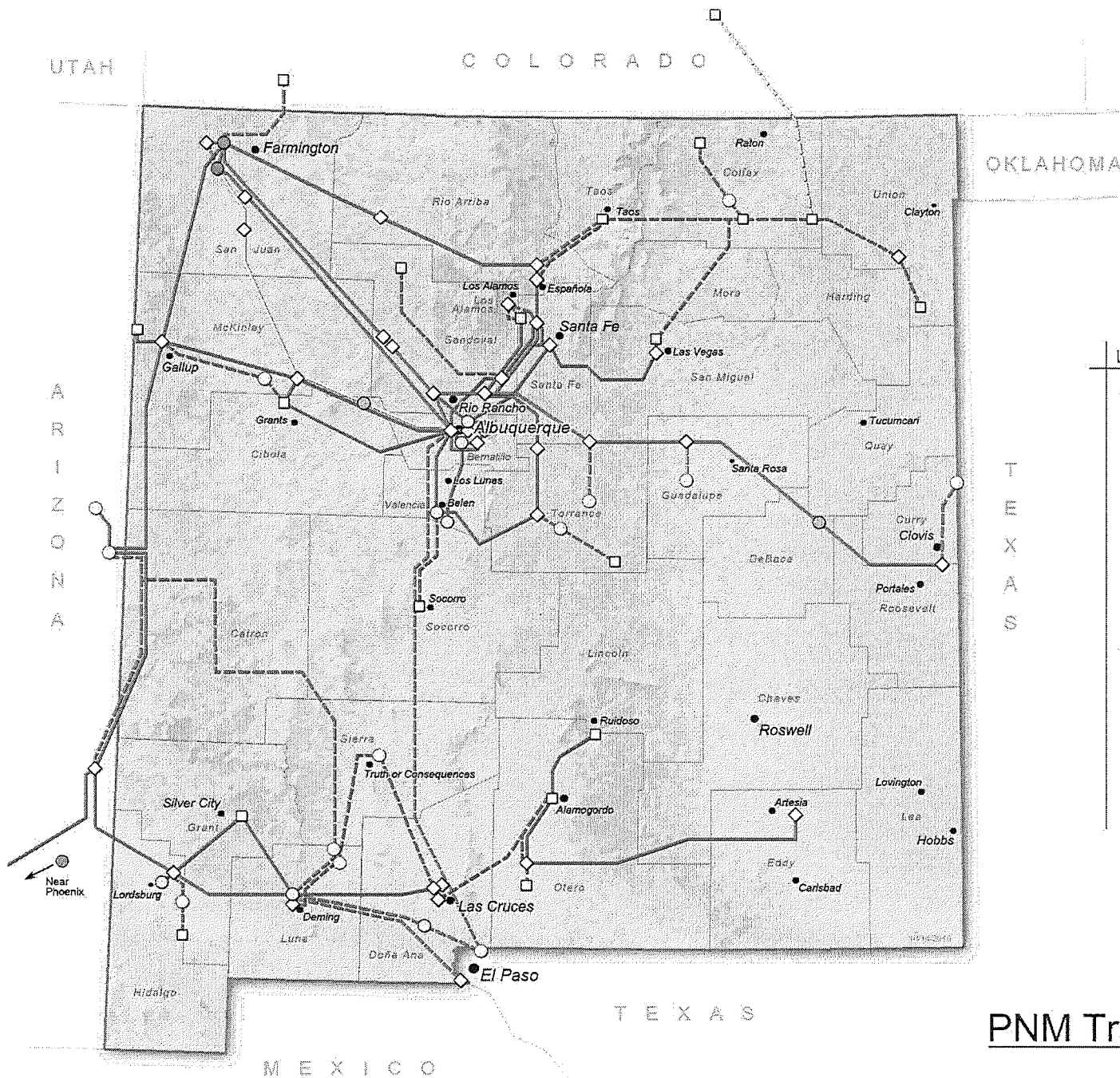
**Professional Affiliations:** Senior member of Institute of Electrical and Electronic Engineers  
("IEEE") Power Engineering Society

Member Representative – WECC

Map of New Mexico Transmission System

# PNM Exhibit JRM-2

Is contained in the following 1 page



## LEGEND

### — PNM System —

- Generation
- Nuclear
  - Coal
  - Natural Gas
  - Wind

- Stations
- ◇ Switching Station
  - Substation

- Transmission
- 345kV
  - 230kV
  - 115kV

### — Associated System —

- Generation
- All Fuels

- Stations
- ◇ Switching Station
  - Substation

- Transmission
- 345kV
  - 230kV
  - 169kV
  - 115kV

PNM Transmission System  
2017

Conductor Footage Report for New Mexico

# PNM Exhibit JRM-3

Is contained in the following 2 pages



## **PNM Exhibit JRM-3**

### **Conductor Footage Report for New Mexico**

All data calculation in this report is based on ArcFM data. This system is a “one-line” model, meaning that all conductors are shown as one physical line, regardless of phases. Feature attribution is used to designate class (primary, secondary, streetlight, services) and number of phases present.

For primary conductor calculations, the length of each conductor is based on the number of conductors which represents each phase individually including the neutral conductor. If there is a single conductor with multiple phases, then it is multiplied by the number of phases represented by the line. The neutral conductor was not included for underground cables.

For secondary, streetlight and service conductors, the length of each conductor is represented by the type of “plex” wires (duplex, triplex, quadriplex). The number of wires in the cable (duplex, triplex, quadriplex, one for everything else) is then multiplied by the number of conductors listed to arrive at the total footage.

Conductor footage totals were calculated for PNM’s services territories in New Mexico

#### **Northern Areas**

Albuquerque, Ambrosia Lake, Clayton, East Mountain, Farmington, Las Vegas, Marquez, Sandoval, Santa Fe, Seven Lakes and Valencia.

#### **Southern Areas**

Alamogordo, Deming, Lordsburg, Ruidoso and Silver City.

## PNM Exhibit JRM-3

### Conductor Footage Report for New Mexico

Division                      Conductor Type/Orientation    In Service

Northern Areas Totals

ALBUQUERQUE	Pri_OH	56,213,602
AMBROSIA LAKE	Pri_UG	42,055,698
CLAYTON	<b>Total Primary</b>	98,269,300
EAST MOUNTAIN	Sec_OH	21,948,775
FARMINGTON	Sec_UG	22,992,172
LAS VEGAS	<b>Total Secondary</b>	44,940,947
MARQUEZ	Sec_STL_OH	4,453,072
SANDOVAL	Sec_STL_UG	3,779,571
SANTA FE	<b>Total Secondary</b>	8,232,643
SEVEN LAKES	Serv_OH	0
VALENCIA	Serv_UG	0

2016

Primary Conductor	130,641,559	66%
Secondary Conductor	68,215,174	34%
Total	198,856,733	

2015

Primary Conductor	128,803,784	66%
Secondary Conductor	66,307,080	34%
Total	195,110,864	

Delta

Primary Conductor	1,837,775	49%
Secondary Conductor	1,908,094	51%
Total	3,745,869	

Southern Areas Totals

ALAMOGORDO	Pri_OH	30,581,323
DEMING	Pri_UG	1,790,936
LORDSBURG	<b>Total Primary</b>	32,372,259
RUIDOSO	Sec_OH	7,983,036
SILVER CITY	Sec_UG	463,561
	<b>Total Secondary</b>	8,446,597
	Sec_STL_OH	2,643,251
	Sec_STL_UG	137,365
	<b>Total Secondary</b>	2,780,616
	Serv_OH	2,945,456
	Serv_UG	868,915
	<b>Total Secondary Service</b>	3,814,371

Transmission Tier 1 Capital Projects

# PNM Exhibit JRM-4

Is contained in the following 208 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

7:53:40 PM

PNM EXHIBIT JRM-4-Transmission Tier 1 Capital Projects

Link/Test

CWIP

Total

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***Blanket***

***Project No: 65006010 San Juan Vail Jt Transmission Project***

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

<u>Construction Start Date</u>	1/1/2014	<u>Estimated Completion Date</u>
<u>List Interim In-Service Dates</u>		
<u>Project Need Justification</u>		

This project is for PNM's share of annual capital improvements or replacements associated with the San Juan-Vail Joint Transmission project. This work is performed to ensure continued reliable and safe performance of the transmission facility. PNM has a contractual obligation to the operating agent Tucson Electric Power (TEP) to pay for these costs prorated on PNM's percent ownership. While specific replacements are not defined, typical work would include replacement of failed or functionally obsolete equipment such as breakers, capacitors, switches, and relays. Work might also include capital improvements to the lines such as vegetation management, access improvements to facilitate planned work as well as routine inspection, or structure replacements. Also this would include capital improvements required to meet emerging NERC security requirements.

Project Alternatives

While PNM has a contractual obligation to pay for its portion of spend, PNM is represented with other participants on an Engineering and Operating committee (E&O), and as such has input regarding decisions and timing of these capital expenditures. While the SJ-Vail transmission project is interconnected to other lines in the WECC, PNM does not have rights in any alternative transmission path(s) that would eliminate the need to participate in the SJ-Vail system.

Technical Aspects

Technical aspects are evaluated by the operating agent and submitted for consideration by the E&O committee. The SJ-Vail transmission project is a path which includes multiple lines and stations. The E&O committee considers the effect of specific proposals against the overall performance of the connected system. Typical projects include replacement of obsolete series capacitors or replacement of breakers to provide increased fault duty.

Project Estimate Approach

As a member of the San Juan-Vail E&O committee, PNM meets regularly with the Operating Partner, TEP. TEP provides recommendations for capital projects and related cost estimates/schedules. PNM reviews both the need and the estimated cost prior to project commitment. PNM operates similar facilities, and as such frequently has independent cost data for similar work to compare with TEP provided estimates. Costs include internal TEP labor, external contract labor, equipment and material associated with these capital jobs. While specific details for each project typically are not known well in advance, contract labor and equipment costs represent 85%-90% of the total annual budget.



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

Cost Year 01

Project	65006010	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	47,131		500	1,000	1,000	1,000	1,000	500	52,131		
	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	1,008,567		0	0	0	0	0	0	1,008,567		
	374-Outside Svcs Legal	32,957		0	0	0	0	0	0	32,957		
	377-Outside Services-Temp Labor	57,525		0	0	0	0	0	0	57,525		
	391-Jt Proj Bills to PNM-Non-Labor	2,925,255		0	75,000	0	75,000	50,000	75,000	3,200,255		
	530-Employee Expense	4,988		0	0	0	0	0	0	4,988		
	610-Expenses - General	0		0	0	2,000	0	0	2,000	4,000		
	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	-7,072	-7,072	-7,072	-21,215		
	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	3,939		39	79	79	79	79	39	4,333		
	914-Pension and Benefits Load	15,110		150	299	299	299	299	150	16,607		
	915-Injuries and Damages Load	4,027		33	65	65	65	65	33	4,353		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	7,143		0	0	0	0	0	0	7,143		
	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	33,490		4	623	25	623	418	636	35,819		
	928-AFUDC Debt Reg	172,068		3,089	3,191	3,297	3,395	3,540	3,688	192,268		
	929-AFUDC - Equity Regular	184,302		3,345	3,456	3,570	3,677	3,834	3,994	206,177		
	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	4,496,501		7,160	83,713	10,335	77,067	52,164	78,967	4,805,907		
	825-Clearings	-3,153,729		0	0	0	0	0	-1,259,587	-4,413,316		
	Clr Sum	-3,153,729		0	0	0	0	0	-1,259,587	-4,413,316		
	Proj Net	1,342,773		7,160	83,713	10,335	77,067	52,164	-1,180,621	392,591		

Page 2

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

Cost Year 02

Project	65006010	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	52,131	0	0	0	0	0	0	0	0	0	0	0	0	52,131
	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	1,008,567	0	0	0	0	0	0	0	0	0	0	0	0	1,008,567
	374-Outside Svcs Legal	32,957	0	0	0	0	0	0	0	0	0	0	0	0	32,957
	377-Outside Services-Temp Labor	57,525	0	0	0	0	0	0	0	0	0	0	0	0	57,525
	391-Jt Proj Bills to PNM-Non-Labor	3,200,255	50,000	0	0	50,000	0	0	50,000	0	0	50,000	0	50,000	3,450,255
	530-Employee Expense	4,988	0	0	0	0	0	0	0	0	0	0	0	0	4,988
	610-Expenses - General	4,000	0	0	0	0	0	0	0	0	0	0	0	0	4,000
	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	-21,215	-2,706	-1,437	0	0	0	0	0	0	0	0	0	0	-25,358
	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	4,333	0	0	0	0	0	0	0	0	0	0	0	0	4,333
	914-Pension and Benefits Load	16,607	0	0	0	0	0	0	0	0	0	0	0	0	16,607
	915-Injuries and Damages Load	4,353	0	0	0	0	0	0	0	0	0	0	0	0	4,353
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	7,143	0	0	0	0	0	0	0	0	0	0	0	0	7,143
	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	35,819	410	0	0	410	0	0	410	0	0	410	0	410	37,869
	928-AFUDC Debt Reg	192,268	1,157	611	613	682	752	757	827	449	451	520	589	658	200,333
	929-AFUDC - Equity Regular	206,177	1,517	801	804	895	986	992	1,085	589	592	682	772	863	216,756
	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	4,805,907	50,378	-24	1,417	51,987	1,738	1,749	52,321	1,037	1,044	51,612	1,361	51,931	5,072,458
	825-Clearings	-4,413,316	-235,120	0	0	0	0	0	-172,154	0	0	0	0	-279,139	-5,099,729
	Clr Sum	-4,413,316	-235,120	0	0	0	0	0	-172,154	0	0	0	0	-279,139	-5,099,729
	Proj Net	392,591	-184,742	-24	1,417	51,987	1,738	1,749	-119,833	1,037	1,044	51,612	1,361	-227,208	-27,271

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

Cost Year 03

Project	65006010	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	52,131	0	0	0	0	0	0	0	0	0	0	0	0	52,131
	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	1,008,567	0	0	0	0	0	0	0	0	0	0	0	0	1,008,567
	374-Outside Svcs Legal	32,957	0	0	0	0	0	0	0	0	0	0	0	0	32,957
	377-Outside Services-Temp Labor	57,525	0	0	0	0	0	0	0	0	0	0	0	0	57,525
391-Jt Proj Bills to PNM-Non-Labor		3,450,255	100,000	100,000	40,000	200,000	100,000	50,000	200,000	100,000	55,000	100,000	100,000	40,000	4,635,255
	530-Employee Expense	4,988	0	0	0	0	0	0	0	0	0	0	0	0	4,988
	610-Expenses - General	4,000	0	0	0	0	0	0	0	0	0	0	0	0	4,000
	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	-25,358	0	0	0	0	0	0	0	0	0	0	0	0	-25,358
	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	4,333	0	0	0	0	0	0	0	0	0	0	0	0	4,333
	914-Pension and Benefits Load	16,607	0	0	0	0	0	0	0	0	0	0	0	0	16,607
	915-Injuries and Damages Load	4,353	0	0	0	0	0	0	0	0	0	0	0	0	4,353
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	7,143	0	0	0	0	0	0	0	0	0	0	0	0	7,143
	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	37,869	820	820	328	1,640	820	410	1,640	820	451	820	820	328	47,586
	928-AFUDC Debt Reg	200,333	132	396	582	901	1,300	1,504	1,841	1,188	1,398	1,609	1,880	2,074	215,137
	929-AFUDC - Equity Regular	216,756	119	357	525	812	1,172	1,356	1,659	1,071	1,260	1,451	1,695	1,870	230,101
	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	5,072,458	101,070	101,572	41,434	203,353	103,292	53,270	205,140	103,079	58,109	103,880	104,395	44,272	6,295,325
	825-Clearings	-5,099,729	0	0	0	0	0	0	-404,566	0	0	0	0	-818,301	-6,322,596
	Clr Sum	-5,099,729	0	0	0	0	0	0	-404,566	0	0	0	0	-818,301	-6,322,596
Proj Net		-27,271	101,070	101,572	41,434	203,353	103,292	53,270	-199,426	103,079	58,109	103,880	104,395	-774,029	-27,271

**Project No: 65006110 ANPP Transmission \$1,165,171 (\$178,405) \$1,165,171**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 1/1/2010 Estimated Completion Date

List Interim In-Service Dates

Projects are cleared as PNM is invoiced.

Project Need Justification

PNM's participation in the Arizona Nuclear Power Project (ANPP), includes the transmission path (stations and lines) for PNM to access its share of the output from the generation facility. PNM is contractually obligated to share in the funding of the capital improvements/replacements associated with these facilities. These capital improvements/replacements typically include costs for the Salt River Project (SRP) internal labor, external contract labor, equipment and materials associated with the replacement of failed equipment such as transformers, improvements to satisfy new regulatory requirements (e.g., installing card readers to control access to certain facilities for enhanced security), or improvements that improve reliability and/or safety conditions.

Project Alternatives

As a member of the Arizona Nuclear Power Project Engineering & Operations (E&O) committee, PNM meets regularly with the Operating Partner, SRP. SRP provides recommendations for capital projects and related cost estimates/schedules. PNM, along with other project participants, reviews, on a case by case basis, the need and timing; and as well the estimated cost prior to project commitment.

Technical Aspects

As a participant in ANPP, PNM has capacity rights in certain switching stations and transmission lines that represent the contractual path. The E&O committee considers the effect of specific proposals against the overall performance of the connected system. Capital improvements might involve any aspect of that path, and could include transmission structure replacement for improved clearances or breaker replacement at a station to obtain improved fault ratings.

Project Estimate Approach

SRP-Power and Water and APS are owners and operators of the ANPP. These ANPP operators typically provide budget estimates to the other owners that include both O&M and capital work. These budgets are composed of many projects needed to support the many 500kv and 230kv switchyard and transmission line projects that make up the ANPP Valley Transmission System. We (PNM) utilize these budgets, if they are delivered in time for our budget cycle, to form our ANPP budgets. If they are not, we utilize the last year actuals to project these budget estimates.

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

Cost Year 01

Project	65006110	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	38,152		117	117	107	1,317	415	415	40,640		
	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	261,816		0	0	0	0	0	0	261,816		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	11,593		0	0	0	0	0	0	11,593		
	391-Jt Proj Bills to PNM-Non-Labor	1,913,995		10,000	9,245	15,000	8,510	10,000	15,000	1,981,750		
	530-Employee Expense	6,909		0	0	0	0	0	0	6,909		
	610-Expenses - General	0		0	0	0	1,300	0	0	1,300		
	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	-2,923	-2,923	-2,923	-8,770		
	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	3,162		9	9	8	104	33	33	3,358		
	914-Pension and Benefits Load	11,413		35	35	32	394	124	124	12,158		
	915-Injuries and Damages Load	3,175		8	8	7	86	27	27	3,337		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	1,849		0	0	0	0	0	0	1,849		
	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	18,385		83	77	124	91	85	126	18,972		
	928-AFUDC Debt Reg	57,931		1,307	1,336	1,370	1,403	1,429	1,459	66,234		
	929-AFUDC - Equity Regular	66,452		1,416	1,446	1,483	1,520	1,547	1,580	75,444		
	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	2,394,833		12,975	12,273	18,131	11,802	10,737	15,840	2,476,591		
	825-Clearings	-1,830,621		0	0	0	0	0	-249,495	-2,080,116		
	Clr Sum	-1,830,621		0	0	0	0	0	-249,495	-2,080,116		
Proj Net		564,212		12,975	12,273	18,131	11,802	10,737	-233,655	396,475		

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

Cost Year 02

Project	65006110	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	40,640	1,500	2,000	2,000	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	59,640
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	261,816	0	0	0	0	0	0	0	0	0	0	0	0	261,816
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	11,593	0	0	0	0	0	0	0	0	0	0	0	0	11,593
391-Jt Proj Bills to PNM-Non-Labor	1,981,750	17,758	17,758	17,758	17,758	17,758	17,758	17,758	17,758	17,758	17,758	17,758	17,760	2,194,851
530-Employee Expense	6,909	0	0	0	0	0	0	0	0	0	0	0	0	6,909
610-Expenses - General	1,300	0	0	2,500	0	0	0	0	0	0	2,500	0	0	6,300
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	-8,770	-2,538	-2,538	0	0	0	0	0	0	0	0	0	0	-13,846
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	3,358	118	157	157	118	118	118	118	118	118	118	118	118	4,848
914-Pension and Benefits Load	12,158	409	546	546	409	409	409	409	409	409	409	409	409	17,343
915-Injuries and Damages Load	3,337	93	124	124	93	93	93	93	93	93	93	93	93	4,519
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	1,849	0	0	0	0	0	0	0	0	0	0	0	0	1,849
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	18,972	158	162	183	158	158	158	158	158	158	178	158	158	20,916
928-AFUDC Debt Reg	66,234	1,084	1,137	1,198	1,262	1,321	1,382	734	791	848	469	527	583	77,569
929-AFUDC - Equity Regular	75,444	1,422	1,491	1,571	1,655	1,733	1,812	963	1,037	1,112	615	692	764	90,311
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	2,476,591	20,004	20,837	26,037	22,953	23,091	23,230	21,734	21,864	21,996	23,641	21,255	21,385	2,744,618
825-Clearings	-2,080,116	0	0	0	0	0	-271,611	0	0	-168,603	0	0	-117,442	-2,637,772
Clr Sum	-2,080,116	0	0	0	0	0	-271,611	0	0	-168,603	0	0	-117,442	-2,637,772
Proj Net	396,475	20,004	20,837	26,037	22,953	23,091	-248,381	21,734	21,864	-146,607	23,641	21,255	-96,057	106,846

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

Cost Year 03

Project	65006110	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	59,640	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	83,640
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	261,816	0	0	0	0	0	0	0	0	0	0	0	0	261,816
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	11,593	0	0	0	0	0	0	0	0	0	0	0	0	11,593
391-Jt Proj Bills to PNM-Non-Labor	2,194,851	25,000	30,000	31,000	31,000	35,000	30,000	30,000	30,000	35,000	35,000	30,000	25,000	2,561,851
530-Employee Expense	6,909	0	0	0	0	0	0	0	0	0	0	0	0	6,909
610-Expenses - General	6,300	0	0	0	0	0	0	0	0	0	0	0	0	6,300
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	-13,846	0	0	0	0	0	0	0	0	0	0	0	0	-13,846
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	4,848	157	157	157	157	157	157	157	157	157	157	157	157	6,729
914-Pension and Benefits Load	17,343	546	546	546	546	546	546	546	546	546	546	546	546	23,893
915-Injuries and Damages Load	4,519	124	124	124	124	124	124	124	124	124	124	124	124	6,012
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	1,849	0	0	0	0	0	0	0	0	0	0	0	0	1,849
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	20,916	221	262	271	271	303	262	262	262	303	303	262	221	24,122
928-AFUDC Debt Reg	77,569	343	425	515	606	704	800	890	512	608	710	807	891	85,380
929-AFUDC - Equity Regular	90,311	309	383	464	547	634	721	803	462	548	640	727	803	97,353
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	2,744,618	28,701	33,897	35,076	35,250	39,468	34,611	34,783	34,063	39,286	39,481	34,624	29,742	3,163,601
825-Clearings	-2,637,772	0	0	0	0	0	0	-179,614	0	0	0	0	-178,405	-2,995,792
Clr Sum	-2,637,772	0	0	0	0	0	0	-179,614	0	0	0	0	-178,405	-2,995,792
Proj Net	106,846	28,701	33,897	35,076	35,250	39,468	34,611	-144,832	34,063	39,286	39,481	34,624	-148,663	167,810

**Project No: 65007010 Miscellaneous Station Improvements**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date                      1/1/2014                      Estimated Completion Date

List Interim In-Service Dates

Each WO is closed as completed, with an estimated 4 clearings per year

Project Need Justification

This project addresses capital replacements or betterments at transmission stations to improve reliability, maintainability or enhance safety. This work is needed to repair/replace equipment that is nearing the end of its useful life or to make other repairs to improve the operability of stations. Typical work might include modifications to equipment clearances and/or switch operator ground mats to improve safety, replacement of aged instrument transformers or surge arresters to improve reliability, and/or replacement of obsolete disconnect switches for improved maintainability.

Project Alternatives

Alternatives for each task are evaluated on a case-by-case basis. Many tasks involve replacing equipment or components with like equipment, so alternatives are not considered. In some cases, upgrades are required to obsolete equipment. In these case, subject matter experts assess the need and typically consider a replacement with a NM standard upgrade. In all cases, alternatives are considered weighing need, cost, safety, and reliability to reach the optimum solution.

Technical Aspects

While the scope of this project is to provide minor capital replacements or improvements at transmission stations, the technical aspects are considered on a task by task basis. Typical projects might include replacement of instrument transformers, surge arresters, and disconnect switches or other modifications to improve worker safety and system reliability.

Project Estimate Approach

Cost estimates are prepared on a per task basis. Estimates typically include major equipment prices from master agreements, and minor material and construction costs from previous similar work or competitive bids. The cost of major material, such as disconnect switches, instrument transformers, or surge arresters is ~50% of total project cost. Contract labor is ~20%. PNM labor is ~20%. Minor material makes up the remaining ~5% of the total project cost. Overall spend is tracked quarterly and adjusted to reflect the timing of specific tasks.



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

Cost Year 01

Project	65007010	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	441,915			1,500	1,500	1,500	1,500	1,500	1,500	450,915		
120-Overtime-General	206,484			500	500	500	500	500	500	209,484		
350-Material Issues-Major	54,346			1,000	1,000	1,000	1,000	1,000	1,000	60,346		
370-Outside Services	2,215,168			2,000	2,000	2,000	2,000	2,000	2,000	2,227,168		
374-Outside Svcs Legal	501			0	0	0	0	0	0	501		
377-Outside Services-Temp Labor	16,008			0	0	0	0	0	0	16,008		
391-Jt Proj Bills to PNM-Non-Labor	-82,208			0	0	0	0	0	0	-82,208		
530-Employee Expense	35,325			0	0	0	0	0	0	35,325		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	3,000			0	0	0	0	0	0	3,000		
807-Non Refundable Contribution	-170,947			0	0	0	0	0	0	-170,947		
829-Construction Adjustment	0			0	0	0	-1,012	-1,012	-1,012	-3,036		
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	55,838			157	157	157	157	157	157	56,783		
914-Pension and Benefits Load	208,595			599	599	599	599	599	599	212,188		
915-Injuries and Damages Load	55,070			130	130	130	130	130	130	55,852		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	20,698			36	36	36	36	36	36	20,916		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	299,731			471	471	471	471	471	471	302,556		
926-A and G Loads	282,856			416	416	416	416	416	416	285,352		
928-AFUDC Debt Reg	119,589			1,807	1,831	470	486	501	517	125,201		
929-AFUDC - Equity Regular	142,073			1,957	1,983	508	526	543	560	148,150		
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	3,904,041			10,574	10,624	7,788	6,810	6,842	6,874	3,953,552		
825-Clearings	-4,099,697			0	-614,687	0	0	0	0	-4,714,383		
Clr Sum	-4,099,697			0	-614,687	0	0	0	0	-4,714,383		
Proj Net	-195,655			10,574	-604,063	7,788	6,810	6,842	6,874	-760,831		

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

Cost Year 02

Project	65007010	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	450,915	8,338	8,338	8,338	8,338	8,338	8,338	8,338	8,338	8,338	8,338	8,338	8,338	550,967
120-Overtime-General	209,484	1,668	1,668	1,668	1,668	1,668	1,668	1,668	1,668	1,668	1,668	1,668	1,668	229,494
350-Material Issues-Major	60,346	10,255	10,255	10,255	10,255	10,255	10,255	10,255	10,255	10,255	10,255	10,255	10,255	183,409
370-Outside Services	2,227,168	5,336	5,336	5,336	5,336	5,336	5,336	5,336	5,336	5,336	5,336	5,336	5,336	2,291,201
374-Outside Svcs Legal	501	0	0	0	0	0	0	0	0	0	0	0	0	501
377-Outside Services-Temp Labor	16,008	0	0	0	0	0	0	0	0	0	0	0	0	16,008
391-Jt Proj Bills to PNM-Non-Labor	-82,208	0	0	0	0	0	0	0	0	0	0	0	0	-82,208
530-Employee Expense	35,325	0	0	0	0	0	0	0	0	0	0	0	0	35,325
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	3,000	0	0	0	0	0	0	0	0	0	0	0	0	3,000
807-Non Refundable Contribution	-170,947	0	0	0	0	0	0	0	0	0	0	0	0	-170,947
829-Construction Adjustment	-3,036	-1,298	-100	0	0	0	0	0	0	0	0	0	0	-4,435
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	56,783	784	784	784	784	784	784	784	784	784	784	784	784	66,195
914-Pension and Benefits Load	212,188	2,730	2,730	2,730	2,730	2,730	2,730	2,730	2,730	2,730	2,730	2,730	2,730	244,953
915-Injuries and Damages Load	55,852	622	622	622	622	622	622	622	622	622	622	622	622	63,320
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	20,916	733	733	733	733	733	733	733	733	733	733	733	733	29,715
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	302,556	809	809	809	809	809	809	809	809	809	809	809	809	312,262
926-A and G Loads	285,352	1,720	1,720	1,720	1,720	1,720	1,720	1,720	1,720	1,720	1,720	1,720	1,720	305,993
928-AFUDC Debt Reg	125,201	649	43	129	216	303	391	479	568	658	748	838	929	131,151
929-AFUDC - Equity Regular	148,150	852	56	169	283	398	513	629	745	863	981	1,099	1,219	155,956
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	3,953,552	33,198	32,995	33,294	33,495	33,696	33,900	34,104	34,309	34,516	34,724	34,933	35,144	4,361,860
825-Clearings	-4,714,383	-266,407	0	0	0	0	0	0	0	0	0	0	0	-4,980,790
Clr Sum	-4,714,383	-266,407	0	0	0	0	0	0	0	0	0	0	0	-4,980,790
Proj Net	-760,831	-233,208	32,995	33,294	33,495	33,696	33,900	34,104	34,309	34,516	34,724	34,933	35,144	-618,930

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

Cost Year 03

Project	65007010	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	550,967	8,333	8,333	8,333	8,333	8,333	8,333	8,333	8,333	8,333	8,333	8,333	8,333	650,967
120-Overtime-General	229,494	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	249,494
350-Material Issues-Major	183,409	10,250	10,250	10,250	10,250	10,250	10,250	10,250	10,250	10,250	10,250	10,250	10,250	306,409
370-Outside Services	2,291,201	5,333	5,333	5,333	5,333	5,333	5,333	5,333	5,333	5,333	5,333	5,333	5,333	2,355,201
374-Outside Svcs Legal	501	0	0	0	0	0	0	0	0	0	0	0	0	501
377-Outside Services-Temp Labor	16,008	0	0	0	0	0	0	0	0	0	0	0	0	16,008
391-Jt Proj Bills to PNM-Non-Labor	-82,208	0	0	0	0	0	0	0	0	0	0	0	0	-82,208
530-Employee Expense	35,325	0	0	0	0	0	0	0	0	0	0	0	0	35,325
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	3,000	0	0	0	0	0	0	0	0	0	0	0	0	3,000
807-Non Refundable Contribution	-170,947	0	0	0	0	0	0	0	0	0	0	0	0	-170,947
829-Construction Adjustment	-4,435	0	0	0	0	0	0	0	0	0	0	0	0	-4,435
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	66,195	784	784	784	784	784	784	784	784	784	784	784	784	75,603
914-Pension and Benefits Load	244,953	2,729	2,729	2,729	2,729	2,729	2,729	2,729	2,729	2,729	2,729	2,729	2,729	277,701
915-Injuries and Damages Load	63,320	622	622	622	622	622	622	622	622	622	622	622	622	70,784
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	29,715	733	733	733	733	733	733	733	733	733	733	733	733	38,509
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	312,262	808	808	808	808	808	808	808	808	808	808	808	808	321,962
926-A and G Loads	305,993	1,719	1,719	1,719	1,719	1,719	1,719	1,719	1,719	1,719	1,719	1,719	1,719	326,624
928-AFUDC Debt Reg	131,151	1,023	43	129	216	303	391	479	568	657	746	836	926	137,468
929-AFUDC - Equity Regular	155,956	922	39	117	195	273	352	432	512	592	672	753	835	161,650
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	4,361,860	34,923	33,061	33,225	33,390	33,556	33,722	33,890	34,058	34,227	34,397	34,568	34,739	4,769,615
825-Clearings	-4,980,790	-410,033	0	0	0	0	0	0	0	0	0	0	0	-5,390,823
Clr Sum	-4,980,790	-410,033	0	0	0	0	0	0	0	0	0	0	0	-5,390,823
Proj Net	-618,930	-375,110	33,061	33,225	33,390	33,556	33,722	33,890	34,058	34,227	34,397	34,568	34,739	-621,208

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***Project No: 65007110 Miscellaneous Transmission Line improvements***

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 1/1/2014 Estimated Completion Date

List Interim In-Service Dates

Each WO is closed as completed, estimated 4 clearings per year

Project Need Justification

This project includes multiple tasks that are aimed at improving reliability, maintainability or enhancing the safe operation of transmission lines. PNM routinely inspects its transmission lines and identifies equipment or materials that need to be repaired or replaced. This work is prioritized based on risk to the operation of the system. Modifications typically involve replacing damaged porcelain insulators with more robust non-ceramic insulators, installing modular steel truss tops to replace failed wood crossarms and braces, replacing structures to provide enhanced clearances, installing new line sectionalizing switches to provide more reliable and safe switching operations. Funds are budgeted for the higher risk items as well as unforeseen failures that may be caused by weather, vandalism, pole hits, etc. Funds include internal labor, material and contract construction.

Project Alternatives

Each task which is written and evaluated on its own. Alternatives considered might include "do nothing" or risk of failure assessment. For example, improved materials such as polymer insulators or prefabricated steel truss framing are typically used to replaced original line material. Driven steel groundline pole reinforcing may be chosen as an alternative to complete replacement of a rotten wood pole due to its improved strength and durability.

Technical Aspects

Technical aspects are considered on a task by task basis, but might include improved lightning performance from enhanced grounding, or improved clearances provided by the installation of taller poles. Vacuum arc interrupters may installed on sectionalizing switches to provide safer and more reliable operation. Replacement of aged wood cross arms with steel truss assemblies may be done to improve reliability and reduce maintenance costs.

Project Estimate Approach

The budget is developed from historical spend over the previous two years with trending based on input from line inspection reports (such as pole ground line testing or wood cross arm inspections). Pole ground line inspection was estimated at 2 to 5 percent replacement rate per 1000 poles inspected. Pole replacement costs included remote access and possible live line work for the installation. This was approximately a 30% increase to the budget. Overall

budget breakdown is approximately 40% material, 30% contract construction and 30% internal PNM labor including construction crews, and support (environmental, engineering, and permitting). All work was assumed in existing easements. While specific jobs are unknown at this time, inspection data may help predict the volume of certain work, such as pole replacements. Detailed and specific cost estimates are prepared on a per task basis as work orders are created. Estimates typically include major equipment prices from master agreements, and minor material and construction costs from previous similar work or competitive bids. Overall spend is tracked quarterly and adjusted to reflect timing of specific tasks.

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

Cost Year 01

Project	65007110	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	387,320		15,000	15,000	15,000	15,000	15,000	15,000	477,320		
	120-Overtime-General	269,355		1,500	1,500	1,500	1,500	1,875	1,875	279,105		
	350-Material Issues-Major	961,262		20,000	20,000	10,000	10,000	7,170	7,000	1,035,432		
	370-Outside Services	1,243,053		10,000	10,000	10,000	10,000	10,000	10,000	1,303,053		
	374-Outside Svcs Legal	404		0	0	0	0	0	0	404		
	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	8,295		0	0	0	0	0	0	8,295		
	610-Expenses - General	0		0	0	0	0	0	0	0		
	805-Land and Land Rights	4,712		0	0	0	0	0	0	4,712		
	807-Non Refundable Contribution	-707,779		0	0	0	0	0	0	-707,779		
	829-Construction Adjustment	0		0	0	0	-1,666	-1,666	-618	-3,950		
	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	52,581		1,299	1,299	1,299	1,299	1,328	1,328	60,431		
	914-Pension and Benefits Load	196,811		4,940	4,940	4,940	4,940	5,052	5,052	226,677		
	915-Injuries and Damages Load	55,269		1,076	1,076	1,076	1,076	1,100	1,100	61,773		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	44,854		724	724	362	362	260	253	47,539		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	234,703		4,305	4,305	3,505	3,505	3,322	3,308	256,954		
	926-A and G Loads	259,857		3,869	3,869	3,037	3,037	2,833	2,818	279,319		
	928-AFUDC Debt Reg	46,640		1,853	554	684	800	911	295	51,737		
	929-AFUDC - Equity Regular	49,090		2,007	600	741	866	987	319	54,609		
	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	3,106,427		66,572	63,866	52,144	50,718	48,171	47,732	3,435,630		
	825-Clearings	-3,225,032		-642,964	0	0	0	-321,915	0	-4,189,911		
	Clr Sum	-3,225,032		-642,964	0	0	0	-321,915	0	-4,189,911		
	Proj Net	-118,605		-576,392	63,866	52,144	50,718	-273,744	47,732	-754,281		

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

Cost Year 02

Project	65007110	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	477,320	15,000	15,000	15,000	15,000	15,000	20,000	15,000	15,000	15,000	20,000	15,000	15,000	667,320
120-Overtime-General	279,105	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	303,105
350-Material Issues-Major	1,035,432	5,000	10,000	10,000	10,000	13,000	5,000	5,000	5,000	10,000	10,000	20,000	5,000	1,143,432
370-Outside Services	1,303,053	15,000	15,000	15,000	15,000	15,000	15,000	51,850	51,850	51,850	51,850	51,850	51,871	1,704,174
374-Outside Svcs Legal	404	0	0	0	0	0	0	0	0	0	0	0	0	404
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	8,295	0	0	0	0	0	0	0	0	0	0	0	0	8,295
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	4,712	0	0	0	0	0	0	0	0	0	0	0	0	4,712
807-Non Refundable Contribution	-707,779	0	0	0	0	0	0	0	0	0	0	0	0	-707,779
829-Construction Adjustment	-3,950	-793	-793	0	0	0	0	0	0	0	0	0	0	-5,536
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	60,431	1,333	1,333	1,333	1,333	1,333	1,725	1,333	1,333	1,333	1,725	1,333	1,333	77,209
914-Pension and Benefits Load	226,677	4,639	4,639	4,639	4,639	4,639	6,004	4,639	4,639	4,639	6,004	4,639	4,639	285,077
915-Injuries and Damages Load	61,773	1,057	1,057	1,057	1,057	1,057	1,368	1,057	1,057	1,057	1,368	1,057	1,057	75,084
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	47,539	358	715	715	715	930	358	358	358	715	715	1,430	358	55,261
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	256,954	1,198	1,334	1,334	1,334	1,415	1,390	2,200	2,200	2,336	2,528	2,608	2,200	279,030
926-A and G Loads	279,319	2,486	2,822	2,822	2,822	3,024	2,822	4,963	4,963	5,299	5,635	5,971	4,964	327,913
928-AFUDC Debt Reg	51,737	466	599	70	211	358	507	698	932	1,176	1,439	1,718	1,982	61,893
929-AFUDC - Equity Regular	54,609	611	786	92	277	469	665	915	1,223	1,543	1,887	2,254	2,599	67,931
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	3,435,630	48,355	54,493	54,063	54,389	58,225	56,839	90,013	90,555	96,948	105,151	109,860	93,004	4,347,523
825-Clearings	-4,189,911	0	-257,885	0	0	0	0	0	0	0	0	0	0	-4,447,796
Clr Sum	-4,189,911	0	-257,885	0	0	0	0	0	0	0	0	0	0	-4,447,796
Proj Net	-754,281	48,355	-203,392	54,063	54,389	58,225	56,839	90,013	90,555	96,948	105,151	109,860	93,004	-100,273

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

Cost Year 03

Project	65007110	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	667,320	5,750	10,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	833,070
120-Overtime-General	303,105	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	325,605
350-Material Issues-Major	1,143,432	13,833	13,833	13,833	13,833	13,833	13,833	13,833	13,833	13,833	13,833	13,833	13,833	1,309,432
370-Outside Services	1,704,174	15,000	15,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	15,000	1,929,174
374-Outside Svcs Legal	404	0	0	0	0	0	0	0	0	0	0	0	0	404
377-Outside Services-Temp Labor	0	438	438	438	438	438	438	438	438	438	438	438	438	5,250
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	8,295	0	0	0	0	0	0	0	0	0	0	0	0	8,295
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	4,712	0	0	0	0	0	0	0	0	0	0	0	0	4,712
807-Non Refundable Contribution	-707,779	0	0	0	0	0	0	0	0	0	0	0	0	-707,779
829-Construction Adjustment	-5,536	0	0	0	0	0	0	0	0	0	0	0	0	-5,536
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	77,209	598	931	1,323	1,323	1,323	1,323	1,323	1,323	1,323	1,323	1,323	1,323	91,968
914-Pension and Benefits Load	285,077	2,081	3,241	4,605	4,605	4,605	4,605	4,605	4,605	4,605	4,605	4,605	4,605	336,451
915-Injuries and Damages Load	75,084	474	739	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	86,793
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	55,261	989	989	989	989	989	989	989	989	989	989	989	989	67,130
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	279,030	1,089	1,253	1,581	1,581	1,581	1,581	1,581	1,581	1,581	1,581	1,581	1,445	297,045
926-A and G Loads	327,913	2,479	2,765	3,437	3,437	3,437	3,437	3,437	3,437	3,437	3,437	3,437	3,101	367,192
928-AFUDC Debt Reg	61,893	2,171	2,307	84	252	420	590	760	932	1,104	1,277	1,450	1,618	74,857
929-AFUDC - Equity Regular	67,931	1,957	2,079	75	227	379	532	685	840	995	1,151	1,308	1,459	79,617
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	4,347,523	48,735	55,449	64,290	64,609	64,930	65,252	65,576	65,902	66,229	66,558	66,889	61,735	5,103,678
825-Clearings	-4,447,796	0	-913,229	0	0	0	0	0	0	0	0	0	0	-5,361,025
Clr Sum	-4,447,796	0	-913,229	0	0	0	0	0	0	0	0	0	0	-5,361,025
Proj Net	-100,273	48,735	-857,780	64,290	64,609	64,930	65,252	65,576	65,902	66,229	66,558	66,889	61,735	-257,347

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**Project No: 65007710 Station Equip Replacement IA**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 1/1/2012 Estimated Completion Date

List Interim In-Service Dates

Each WO is closed as completed, with an estimated 4 clearings per year.

Project Need Justification

This project provides annual funds for the replacement or upgrade of aging or obsolete Transmission Substation Equipment on PNM's electric system. These projects are typically small projects (less than \$100k each) that are needed to help maintain system reliability, meet current safety or compliance requirements, or replace equipment that longer meet required performance requirements. Some examples include replacing or upgrading substation transformer components (e.g., primary bushings, load tap changer upgrades or replacements), replacing aging transmission circuit breakers, and upgrading ageing equipment (e.g., station arrestors, capacitor switching equipment, bus insulators, station capacitors, capacitive voltage transformers, and station battery replacements) in Transmission Substations. The project will also cover the cost for projects that extend the life of substation equipment, such as replacing all of the gasketing on station transformers or performing bushing replacements.

Project Alternatives

Each project is reviewed for a range of solutions from repair to direct replacement to redesign. Criteria for evaluating potential solutions includes the ability to meet system performance requirements, whether the solution addresses identified compliance or safety issues, the availability of replacement parts, utilizing common vendors, meeting the needed schedule, and minimizing the long-term costs of the selected solution.

Technical Aspects

The technical aspects of this project involve subject matter expert(s) identifying critical transmission substation equipment that must be replaced or upgraded due to obsolescence or damage. Once the issues have been identified and solution selected, PNM will order the materials and coordinate work to accomplish the upgrade or repair of the component. The projects vary depending upon need, but cover the range of work described in the justification section above.

Project Estimate Approach

Cost estimates are prepared on a per task basis. Estimates typically include major equipment prices from master agreements, and minor material and construction costs from previous similar work or competitive bids. PNM reviewed historical spend on an annual basis across the last 5 years to develop the

future budget. In addition to the historical funding, PNM also looked at trends which are developing on our system, equipment which is nearing end of productive life, changes developing in compliance, environmental, and safety requirements, results from inspections and testing, all of which need to be considered when estimating budgets and implementing projects. There is a slight uptick in anticipated spend due to 1) the age of much of the system equipment is old and there is likely to be a higher need for repairs/replacements and 2) added compliance issues, which will drive the need for additional upgrades/replacements. These estimates also include some funds to address emergent issues that are identified when completing this work.

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

Cost Year 01

Project	65007710	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	470,132		20,000	20,000	20,000	20,000	15,000	2,833	567,966		
	120-Overtime-General	434,190		0	0	0	0	0	0	434,190		
	350-Material Issues-Major	19,326		21,875	21,875	21,875	21,875	21,875	21,875	150,576		
	370-Outside Services	1,816,368		2,841	2,841	13,400	10,000	2,841	10,000	1,858,292		
	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	42,306		0	0	0	0	0	0	42,306		
	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	-39,545		0	0	0	0	0	0	-39,545		
	829-Construction Adjustment	0		0	0	0	-279	-216	-168	-664		
	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	67,229		1,574	1,574	1,574	1,574	1,181	223	74,928		
	914-Pension and Benefits Load	248,209		5,988	5,988	5,988	5,988	4,491	848	277,501		
	915-Injuries and Damages Load	66,221		1,304	1,304	1,304	1,304	978	185	72,600		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	19,336		792	792	792	792	792	792	24,087		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	229,958		4,287	4,287	5,131	4,859	3,709	2,877	255,108		
	926-A and G Loads	303,989		3,720	3,720	4,599	4,316	3,304	2,888	326,537		
	928-AFUDC Debt Reg	61,062		1,824	451	189	134	104	81	63,844		
	929-AFUDC - Equity Regular	72,829		1,975	488	204	145	112	87	75,842		
	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	3,811,609		66,180	63,320	75,056	70,708	54,171	42,521	4,183,566		
	825-Clearings	-4,434,677		-675,301	-185,716	-97,188	-76,004	-58,538	-45,724	-5,573,149		
	Clr Sum	-4,434,677		-675,301	-185,716	-97,188	-76,004	-58,538	-45,724	-5,573,149		
	Proj Net	-623,068		-609,121	-122,396	-22,132	-5,296	-4,367	-3,203	-1,389,583		

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

Cost Year 02

Project	65007710	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	567,966	20,000	20,000	20,000	20,000	13,133	15,000	15,000	15,000	15,000	15,000	15,000	15,000	766,099
120-Overtime-General	434,190	0	0	0	0	0	0	0	0	0	0	0	0	434,190
350-Material Issues-Major	150,576	21,875	21,875	21,875	21,875	21,875	21,875	21,875	21,875	21,875	21,875	21,875	21,875	413,076
370-Outside Services	1,858,292	0	0	0	0	0	0	0	0	0	0	0	0	1,858,292
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	42,306	0	0	0	0	0	0	0	0	0	0	0	0	42,306
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	-39,545	0	0	0	0	0	0	0	0	0	0	0	0	-39,545
829-Construction Adjustment	-664	-216	-216	0	0	0	0	0	0	0	0	0	0	-1,096
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	74,928	1,568	1,568	1,568	1,568	1,030	1,176	1,176	1,176	1,176	1,176	1,176	1,176	90,462
914-Pension and Benefits Load	277,501	5,458	5,458	5,458	5,458	3,584	4,094	4,094	4,094	4,094	4,094	4,094	4,094	331,571
915-Injuries and Damages Load	72,600	1,244	1,244	1,244	1,244	817	933	933	933	933	933	933	933	84,924
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	24,087	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	42,856
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	255,108	1,364	1,364	1,364	1,364	1,100	1,172	1,172	1,172	1,172	1,172	1,172	1,172	269,865
926-A and G Loads	326,537	2,814	2,814	2,814	2,814	2,353	2,478	2,478	2,478	2,478	2,478	2,478	2,478	357,491
928-AFUDC Debt Reg	63,844	102	248	395	543	678	805	499	628	758	476	604	734	70,314
929-AFUDC - Equity Regular	75,842	134	325	518	712	890	1,055	655	824	994	624	793	963	84,328
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	4,183,566	55,908	56,245	56,800	57,142	47,023	50,151	49,445	49,743	50,043	49,391	49,688	49,988	4,805,133
825-Clearings	-5,573,149	0	0	0	0	0	-167,350	0	0	-158,291	0	0	-153,679	-6,052,468
Clr Sum	-5,573,149	0	0	0	0	0	-167,350	0	0	-158,291	0	0	-153,679	-6,052,468
Proj Net	-1,389,583	55,908	56,245	56,800	57,142	47,023	-117,199	49,445	49,743	-108,248	49,391	49,688	-103,691	-1,247,335

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

Cost Year 03

Project 65007710	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	766,099	2,833	2,833	2,833	2,833	2,833	2,833	2,833	2,833	2,833	2,833	2,833	2,833	800,099
120-Overtime-General	434,190	0	0	0	0	0	0	0	0	0	0	0	0	434,190
350-Material Issues-Major	413,076	21,875	21,875	21,875	21,875	21,875	21,875	21,875	21,875	21,875	21,875	21,875	21,875	675,576
370-Outside Services	1,858,292	2,841	2,841	40,590	20,295	2,841	40,590	47,981	47,981	85,730	65,435	47,981	83,904	2,347,306
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	42,306	0	0	0	0	0	0	0	0	0	0	0	0	42,306
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	-39,545	0	0	0	0	0	0	0	0	0	0	0	0	-39,545
829-Construction Adjustment	-1,096	0	0	0	0	0	0	0	0	0	0	0	0	-1,096
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	90,462	222	222	222	222	222	222	222	222	222	222	222	222	93,127
914-Pension and Benefits Load	331,571	773	773	773	773	773	773	773	773	773	773	773	773	340,850
915-Injuries and Damages Load	84,924	176	176	176	176	176	176	176	176	176	176	176	176	87,038
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	42,856	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	61,624
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	269,865	781	781	1,808	1,256	781	1,808	2,009	2,009	3,036	2,484	2,009	2,986	291,614
926-A and G Loads	357,491	1,851	1,851	4,388	3,024	1,851	4,388	4,885	4,885	7,421	6,058	4,885	7,299	410,278
928-AFUDC Debt Reg	70,314	444	141	134	114	80	122	151	159	215	208	176	216	72,473
929-AFUDC - Equity Regular	84,328	401	127	121	103	72	110	136	144	194	187	158	194	86,275
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	4,805,133	33,763	33,186	74,485	52,237	33,069	74,461	82,607	82,622	124,040	101,816	82,653	122,043	5,702,115
825-Clearings	-6,052,468	-149,953	-56,539	-70,896	-55,968	-37,649	-67,099	-79,505	-81,999	-115,632	-104,579	-87,038	-115,042	-7,074,368
Clr Sum	-6,052,468	-149,953	-56,539	-70,896	-55,968	-37,649	-67,099	-79,505	-81,999	-115,632	-104,579	-87,038	-115,042	-7,074,368
Proj Net	-1,247,335	-116,190	-23,353	3,589	-3,732	-4,580	7,363	3,102	623	8,408	-2,763	-4,385	7,001	-1,372,253

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***Project No: 65030610 2011 Communications Equipment Capital Budget***

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date                      1/1/2012                      Estimated Completion Date NA

List Interim In-Service Dates

Each work order is closed as completed, with an estimated 4 clearings per year.

Project Need Justification

This project provides discretionary funds for the Communications Supervisor to upgrade aging communications equipment on PNM's electric transmission system. The funds cover material costs, and the related labor costs to replace and or upgrade obsolete or failed equipment.

Project Alternatives

The alternative to providing discretionary funding for Supervisory management of small projects would be to have all system equipment upgrades and replacement of obsolete equipment, regardless of scope, go through the same process for all of the capital projects, which would dramatically reduce the ability to address critical upgrades and replacement of failed or obsolete communication equipment. Alternative upgrade options are considered for each upgrade at the work order level.

Technical Aspects

The technical aspects of this project involve subject matter expert (supervisor) identifying critical communications equipment that is in need of replacement or upgrade due to obsolescence, ordering the material and coordinating work to accomplish the upgrade or repair of the component. These projects are typically small projects that would require little or no engineering support. Examples include upgrading microwave radio equipment, remote site air conditioning units (to prevent equipment from overheating), remote site generators, communications site batteries, and monitors at remote sites. The projects vary depending upon need.

Project Estimate Approach

This project was estimated using the standard procedure used by the Communication department. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment (TRUs, Radios) we contacted our alliance vendors and requested information regarding the costs and schedules of these major items.

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

Cost Year 01

Project	65030610	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	11,702		2,000	2,000	2,000	2,000	2,000	2,000	23,702		
	120-Overtime-General	3,740		0	0	0	0	0	0	3,740		
	350-Material Issues-Major	0		5,000	5,000	5,000	5,000	5,000	3,000	28,000		
	370-Outside Services	19,898		2,000	2,000	2,000	2,000	2,000	2,000	31,898		
	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	894		0	0	0	0	0	0	894		
	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	-38	-38	-33	-109		
	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	1,199		157	157	157	157	157	157	2,143		
	914-Pension and Benefits Load	4,204		599	599	599	599	599	599	7,797		
	915-Injuries and Damages Load	1,171		130	130	130	130	130	130	1,954		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	559		181	181	181	181	181	109	1,572		
	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	7,160		749	749	749	749	749	582	11,487		
	928-AFUDC Debt Reg	767		17	18	18	18	18	16	873		
	929-AFUDC - Equity Regular	799		19	20	20	20	20	17	913		
	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	52,094		10,852	10,854	10,854	10,816	10,816	8,578	114,864		
	825-Clearings	-109,732		-10,441	-10,771	-10,838	-10,821	-10,817	-9,025	-172,446		
	Clr Sum	-109,732		-10,441	-10,771	-10,838	-10,821	-10,817	-9,025	-172,446		
	Proj Net	-57,638		411	83	17	-4	-1	-448	-57,581		

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

Cost Year 02

Project	65030610	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	23,702	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	35,702
120-Overtime-General	3,740	0	0	0	0	0	0	0	0	0	0	0	0	3,740
350-Material Issues-Major	28,000	1,583	1,583	25,000	1,583	1,583	25,000	1,583	1,583	25,000	1,583	1,583	1,583	117,250
370-Outside Services	31,898	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	151,898
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	894	0	0	0	0	0	0	0	0	0	0	0	0	894
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	-109	-42	-42	0	0	0	0	0	0	0	0	0	0	-193
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	2,143	78	78	78	78	78	78	78	78	78	78	78	78	3,084
914-Pension and Benefits Load	7,797	273	273	273	273	273	273	273	273	273	273	273	273	11,072
915-Injuries and Damages Load	1,954	62	62	62	62	62	62	62	62	62	62	62	62	2,700
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	1,572	113	113	1,788	113	113	1,788	113	113	1,788	113	113	113	7,953
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	11,487	846	846	2,419	846	846	2,419	846	846	2,419	846	846	846	26,355
928-AFUDC Debt Reg	873	24	60	132	204	241	314	387	426	499	574	613	336	4,684
929-AFUDC - Equity Regular	913	32	79	173	267	317	412	508	558	655	752	805	440	5,911
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	114,864	13,969	14,053	40,925	14,427	14,514	41,346	14,850	14,940	41,775	15,281	15,374	14,732	371,050
825-Clearings	-172,446	0	0	0	0	0	0	0	0	0	0	-121,855	-68,293	-362,594
Clr Sum	-172,446	0	0	0	0	0	0	0	0	0	0	-121,855	-68,293	-362,594
Proj Net	-57,581	13,969	14,053	40,925	14,427	14,514	41,346	14,850	14,940	41,775	15,281	-106,481	-53,562	8,456

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

Cost Year 03

Project	65030610	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	35,702	1,000	1,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	87,702
120-Overtime-General	3,740	0	0	0	0	0	0	0	0	0	0	0	0	3,740
350-Material Issues-Major	117,250	1,583	1,583	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	370,417
370-Outside Services	151,898	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	271,898
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	894	0	0	0	0	0	0	0	0	0	0	0	0	894
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	-193	0	0	0	0	0	0	0	0	0	0	0	0	-193
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	3,084	78	78	392	392	392	392	392	392	392	392	392	392	7,161
914-Pension and Benefits Load	11,072	273	273	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	25,263
915-Injuries and Damages Load	2,700	62	62	311	311	311	311	311	311	311	311	311	311	5,934
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	7,953	113	113	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	26,055
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	26,355	846	846	2,688	2,688	2,688	2,688	2,688	2,688	2,688	2,688	2,688	2,688	54,926
928-AFUDC Debt Reg	4,684	197	234	111	95	92	91	91	91	91	91	91	91	6,052
929-AFUDC - Equity Regular	5,911	177	211	100	86	83	82	82	82	82	82	82	82	7,145
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	371,050	14,329	14,401	46,755	46,724	46,718	46,717	46,717	46,717	46,717	46,717	46,717	46,717	866,994
825-Clearings	-362,594	0	-77,619	-52,928	-47,965	-46,967	-46,767	-46,727	-46,719	-46,717	-46,717	-46,717	-46,717	-915,152
Clr Sum	-362,594	0	-77,619	-52,928	-47,965	-46,967	-46,767	-46,727	-46,719	-46,717	-46,717	-46,717	-46,717	-915,152
Proj Net	8,456	14,329	-63,218	-6,173	-1,241	-249	-50	-10	-2	0	0	0	0	-48,158

***Project No: 65007617 Substation Security Upgrades***

Company:

Location: 650 Transmission

Project Information

Construction Start Date 03/01/2017

Estimated Completion Date 12/31/2017

List Interim In-Service Dates

Project Need Justification

The purpose of this project is to implement physical controls at stations to address copper theft and vandalism. The stations that will be identified will have a CIP impact rating in which physical security can not only mitigate copper theft and vandalism, but be used as a physical control for North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) compliance requirements.

The copper ground grid is a critical part of the station design and provides safety to PNM personnel and also enables equipment to function properly. When the grounding system is compromised, equipment may need to be taken out-of-service. This can affect ability to transmit power as well as impacts service to customers. Additional crew time is required to de-energize substations and perform field switching if the theft is significant enough. This additional work impacts labor budgets and scheduled work. The cost to repair stolen copper grounds are significant, and more importantly the work places PNM personnel, the general public and electrical service at risk. The thefts are also likely being performed by individuals unfamiliar with the function of an electrical substation and unaware of the risks posed by being near energized equipment which exposes them to potentially deadly consequences or severe injury.

Project Alternatives

The only other option to evaluating options to deter theft/vandalism is to do nothing. Given the impact and costs these crimes have on the PNM system, this is not a viable alternative. Evaluations of lessons learned and applicability have been determined and are now being applied to the NERC-CIP projects around station security. Designs, Engineering, Construction, and commissioning have been integrated into the existing PNM project management stages for review. These evaluations and reviews will continue to help assess alternatives to deter future cases of theft and vandalism.

Technical Aspects

Technology implemented includes targeting detection, deterring, and defending. Detection solutions are by Thermal Camera's with analytics functionality for real time monitoring from the PNM Operations Center (SOC). Deterring solutions implemented are physical hardenning, audible alarms and smart lighting upon a breach to the system detected by the thermal cameras. Defending solutions implemented by real time monitoring and response plans by PNM Security.

#### Project Estimate Approach

Damage/theft at each switchyard is evaluated and used to determine potential mitigation actions. The identified actions are then used to develop an estimated cost of materials and with that information the labor cost estimate was created to reflect the scope of the project. Bids are then solicited from known utility contractors. Historical pricing from prior projects is used to evaluate, and to the extent possible, improve pricing on current projects. The equipment cost of each project came out to 40-50% of the total cost. Labor, Engineering, and Commissioning services total the remaining cost. Of the 50-60% of Labor, engineering, and commissioning, Internal Labor is estimated at 20-30% and 70-80% can be outsourced. Contracts are setup for a warranty and services period for outsourcing maintenance and support. This project will use the same solutions and take into account lessons learned from the previous related projects. (Remote Access for Medium Impact Stations - 6428113, Test Lab Implementation - 10034115, and Station Security Pilot Project - 64807013).

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

Cost Year 01

Project	65007617	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	65007617	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	108,000
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	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	0	450,000
374-Outside Svcs Legal	0	0	0	0	50,000	50,000	10,000	0	0	0	0	0	0	110,000
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	706	706	706	706	706	706	706	706	706	706	706	706	8,467
914-Pension and Benefits Load	0	2,456	2,456	2,456	2,456	2,456	2,456	2,456	2,456	2,456	2,456	2,456	2,456	29,473
915-Injuries and Damages Load	0	560	560	560	560	560	560	560	560	560	560	560	560	6,718
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	346	346	1,706	3,066	3,066	1,978	1,706	1,706	1,706	1,706	1,706	346	19,384
926-A and G Loads	0	605	605	3,965	7,325	7,325	4,637	3,965	3,965	3,965	3,965	3,965	605	44,890
928-AFUDC Debt Reg	0	18	54	161	411	735	1,003	1,202	1,387	1,574	1,762	1,950	2,069	12,325
929-AFUDC - Equity Regular	0	23	70	211	540	964	1,316	1,576	1,820	2,064	2,311	2,558	2,714	16,167
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	13,714	13,796	68,764	124,063	124,811	81,655	71,170	71,599	72,030	72,465	72,901	18,456	805,424
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-805,424	-805,424
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-805,424	-805,424
Proj Net	0	13,714	13,796	68,764	124,063	124,811	81,655	71,170	71,599	72,030	72,465	72,901	-786,969	0

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

Cost Year 03

Project	65007617	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	108,000	0	0	0	0	0	0	0	0	0	0	0	0	108,000
	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	450,000	0	0	0	0	0	0	0	0	0	0	0	0	450,000
	374-Outside Svcs Legal	110,000	0	0	0	0	0	0	0	0	0	0	0	0	110,000
	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	8,467	0	0	0	0	0	0	0	0	0	0	0	0	8,467
	914-Pension and Benefits Load	29,473	0	0	0	0	0	0	0	0	0	0	0	0	29,473
	915-Injuries and Damages Load	6,718	0	0	0	0	0	0	0	0	0	0	0	0	6,718
	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	19,384	0	0	0	0	0	0	0	0	0	0	0	0	19,384
	926-A and G Loads	44,890	0	0	0	0	0	0	0	0	0	0	0	0	44,890
	928-AFUDC Debt Reg	12,325	0	0	0	0	0	0	0	0	0	0	0	0	12,325
	929-AFUDC - Equity Regular	16,167	0	0	0	0	0	0	0	0	0	0	0	0	16,167
	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	805,424	0	0	0	0	0	0	0	0	0	0	0	0	805,424
	825-Clearings	-805,424	0	0	0	0	0	0	0	0	0	0	0	0	-805,424
	Clr Sum	-805,424	0	0	0	0	0	0	0	0	0	0	0	0	-805,424
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Specifics***

***Project No: 22007514 Alamogordo Replacement Capacitor Installation***

Company: 035-PNM TNMPNM Transmission  
Location: 220 Transmission

Project Information

<u>Construction Start Date</u>	1/1/2015	<u>Estimated Completion Date</u>	4/30/2017
<u>List Interim In-Service Dates</u>	N/A		

Project Need Justification

On June 12, 2014, the Alamogordo 115 kV shunt capacitor bank #1 tripped and was taken out-of-service. Subsequent inspections showed the shunt capacitor bank was damaged. Since this shunt capacitor bank had been previously identified as being at risk of failed individual shunt capacitor elements, a replacement bank was purchased, but not installed. The project will restore existing required voltage support to service and accelerate the plan to relocate the shunt capacitor (currently budgeted in 2016). Additionally, the project will maintain the reliability of PNM’s bulk transmission system consistent with North American Electric Reliability Corporation reliability standards requirements.

Project Alternatives

A no action alternative would fail to restore the existing required voltage support provided by the capacitors. Adding a new transmission line was considered as an alternative since it would improve voltage performance. However the cost of this alternative would be in excess of \$15,000,000. A new transmission line would not be in service for several years because of routing, environmental studies, permitting, material lead times and construction time. With the current expected load PNM has not identified a need for new transmission facilities in the next ten years. As a result, replacement of the existing capacitor bank is considered the most feasible economic solution.

Technical Aspects

The failed capacitor is connected to the Alamogordo-Amrad 115 kV line resulting in voltage reductions greater than 7% during contingencies. Voltage reductions greater than 7% exceed PNM’s design criteria used in system planning studied. To correct the voltage reductions, PNM will expand the Alamogordo 115 kV bus and create an independent bay for the installation of the replacement capacitor bank. This will ensure the capacitor status is not dependent on the Alamogordo-Amrad 115 kV line.PNM will make associated disconnect and protection upgrades to ensure that the installation of the replacement is consistent with planning and station design standards.



#### Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment like circuit breakers we contacted our alliance vendors (HVB or Siemens) and requested information regarding the costs and schedules of these major items. The capacitors for this project are already in hand and the exact price of the capacitors are known. Labor and contractor estimates were created from past projects that are similar in nature, for this project past unit capacitor installations (Yah-Ta-Hey) were referenced. All overhead costs are standard and calculated using the approved corporate software. Internal labor accounts for 24%, material accounts for 22%, contract services accounts for 39%, and overhead costs account for 15% of the total cost.

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

Cost Year 01

Project	22007514	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			2,000	10,000	2,000	2,500	2,500	2,500	21,500		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	50,000	50,000	125,000	39,500	50,000	314,500		
370-Outside Services	0			0	80,000	80,000	0	0	50,000	210,000		
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			157	787	157	197	197	197	1,692		
914-Pension and Benefits Load	0			599	2,994	599	749	749	749	6,437		
915-Injuries and Damages Load	0			130	652	130	163	163	163	1,402		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	1,810	1,810	4,525	1,430	1,810	11,385		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			231	11,555	10,631	10,289	3,449	8,289	44,442		
926-A and G Loads	0			166	11,648	10,982	10,608	3,494	8,528	45,427		
928-AFUDC Debt Reg	0			1,760	1,963	2,339	2,700	2,944	3,154	14,860		
929-AFUDC - Equity Regular	0			1,906	2,126	2,533	2,924	3,189	3,416	16,093		
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			6,950	173,534	161,182	159,654	57,614	128,804	687,739		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			6,950	173,534	161,182	159,654	57,614	128,804	687,739		

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

Cost Year 02

Project	22007514	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	21,500	25,363	25,928	8,000	5,000	0	0	0	0	0	0	0	0	85,791	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	314,500	15,000	50,000	50,000	10,000	0	0	0	0	0	0	0	0	439,500	
370-Outside Services	210,000	120,000	120,000	100,000	50,000	0	0	0	0	0	0	0	0	600,000	
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	1,692	1,988	2,033	627	392	0	0	0	0	0	0	0	0	6,732	
914-Pension and Benefits Load	6,437	6,922	7,076	2,183	1,365	0	0	0	0	0	0	0	0	23,982	
915-Injuries and Damages Load	1,402	1,578	1,613	498	311	0	0	0	0	0	0	0	0	5,401	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	11,385	1,073	3,575	3,575	715	0	0	0	0	0	0	0	0	20,322	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	44,442	4,647	5,621	4,388	1,824	0	0	0	0	0	0	0	0	60,922	
926-A and G Loads	45,427	10,776	13,166	10,618	4,368	0	0	0	0	0	0	0	0	84,356	
928-AFUDC Debt Reg	14,860	4,068	4,635	5,196	5,558	0	0	0	0	0	0	0	0	34,317	
929-AFUDC - Equity Regular	16,093	5,336	6,080	6,815	7,290	0	0	0	0	0	0	0	0	41,614	
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	687,739	196,750	239,726	191,900	86,823	0	0	0	0	0	0	0	0	1,402,938	
825-Clearings	0	0	0	0	-2,182,119	0	0	0	0	0	0	0	0	-2,182,119	
Clr Sum	0	0	0	0	-2,182,119	0	0	0	0	0	0	0	0	-2,182,119	
Proj Net	687,739	196,750	239,726	191,900	-2,095,296	0	0	0	0	0	0	0	0	-779,181	

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

Cost Year 03

Project	22007514	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	85,791	0	0	0	0	0	0	0	0	0	0	0	0	85,791
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	439,500	0	0	0	0	0	0	0	0	0	0	0	0	439,500
	370-Outside Services	600,000	0	0	0	0	0	0	0	0	0	0	0	0	600,000
	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	6,732	0	0	0	0	0	0	0	0	0	0	0	0	6,732
	914-Pension and Benefits Load	23,982	0	0	0	0	0	0	0	0	0	0	0	0	23,982
	915-Injuries and Damages Load	5,401	0	0	0	0	0	0	0	0	0	0	0	0	5,401
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	20,322	0	0	0	0	0	0	0	0	0	0	0	0	20,322
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	60,922	0	0	0	0	0	0	0	0	0	0	0	0	60,922
	926-A and G Loads	84,356	0	0	0	0	0	0	0	0	0	0	0	0	84,356
	928-AFUDC Debt Reg	34,317	0	0	0	0	0	0	0	0	0	0	0	0	34,317
	929-AFUDC - Equity Regular	41,614	0	0	0	0	0	0	0	0	0	0	0	0	41,614
	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	1,402,938	0	0	0	0	0	0	0	0	0	0	0	0	1,402,938
	825-Clearings	-2,182,119	0	0	0	0	0	0	0	0	0	0	0	0	-2,182,119
	Clr Sum	-2,182,119	0	0	0	0	0	0	0	0	0	0	0	0	-2,182,119
	Proj Net	-779,181	0	0	0	0	0	0	0	0	0	0	0	0	-779,181

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***Project No: 64807015 NERC RELAY REPLACEMENT***

Company: 002-Transmission Services

Location: 648 Transmission

**Project Information**

Construction Start Date 2/6/2017 Estimated Completion Date 12/31/2018

List Interim In-Service Dates

In-service dates and clearings will occur as soon as work at an individual relays are installed.

Project Need Justification

This project is meant to replace aging electromechanical, solid state, and older microprocessor relays with the new microprocessor relays to improve the reliability of PNMs electric grid. The electromechanical relays are at risk of malfunction due to their constant need for maintenance. This has resulted in slower inertia in the mechanical operation of the moving components, which further creates reliability issues. Some other benefits of using microprocessor relays versus electromechanical relays are as follows: -performance (sensitivity and speed)-reliability (security, selectivity, and dependability) and availability-efficiency and economics-safety-compatibility

Project Alternatives

There are no other alternatives to this project and because of NERC compliance obligations, inaction is not an option as well.

Technical Aspects

Work will include replacing aging electromechanical relays, solid state relays, and older microprocessor relays with the new microprocessor relays to improve the reliability of PNM's electric grid. The Electromechanical Relays are at risk for proper performance due to the need for extensive maintenance. Also the speed of operation is limited by the mechanical inertia of the moving components which creates reliability issues. Some other benefits of using Microprocessor relays vs. electromechanical relays are as follows: Performance (sensitivity and speed), reliability (security, selectivity, and dependability), availability, efficiency, economics, safety, and compatibility.

Project Estimate Approach

The estimate approach used for this project involved the following steps1) Obtained panel quote from SEL -345kV Standard Relay Panel 1 and 2 would cost \$71,365 per station-345kV Standard Retrofit Relay Panel 1 and 2 would cost \$61,937 per station)-15kV Standard Relay Panel would cost \$47,800 per station-115kV Standard Retro-Fit Relay Panel would cost \$42,097 per station-345kV Functional Test would cost \$1,578 per 345kV panel-115kV Functional Test would cost \$1,075 per 115kV panel2) Developed Protection and Control construction hours estimates with the Relay Group- 522 hours per line terminal3) Developed Protection and Control engineering hours estimates based on past experience-256 hours per line terminal4) Developed Communication engineering hours estimates with Communication Engineering-135 hours per line terminal

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

Cost Year 01

Project	64807015	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	94,989		2,500	0	1,000	2,000	1,750	250	102,489		
	120-Overtime-General	91,581		0	0	0	0	0	0	91,581		
	350-Material Issues-Major	9,412		147,811	0	0	0	0	0	157,223		
	370-Outside Services	188,197		135,000	135,000	150,000	120,000	120,000	0	848,197		
	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	6,968		0	0	0	0	0	0	6,968		
	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	-8,582	-8,215	-7,214	-24,011		
	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	15,847		197	0	79	157	138	20	16,438		
	914-Pension and Benefits Load	60,261		749	0	299	599	524	75	62,507		
	915-Injuries and Damages Load	13,135		163	0	65	130	114	16	13,624		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	6,811		5,351	0	0	0	0	0	12,162		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	77,936		22,914	10,800	12,115	9,831	9,802	29	143,426		
	926-A and G Loads	115,487		23,738	11,232	12,563	10,150	10,130	21	183,321		
	928-AFUDC Debt Reg	19,015		2,790	3,361	3,752	4,120	3,927	3,434	40,399		
	929-AFUDC - Equity Regular	11,828		3,021	3,640	4,064	4,462	4,253	3,718	34,985		
	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	711,468		344,232	164,033	183,938	142,868	142,422	348	1,689,310		
	825-Clearings	-650,307		0	0	0	-228,426	-290,807	-763,542	-1,933,081		
	Clr Sum	-650,307		0	0	0	-228,426	-290,807	-763,542	-1,933,081		
	Proj Net	61,161		344,232	164,033	183,938	-85,558	-148,385	-763,194	-243,772		

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

Cost Year 02

Project	64807015	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	102,489	4,750	3,000	3,750	3,000	2,250	1,750	1,500	3,000	1,750	2,250	1,000	1,250	131,739
120-Overtime-General	91,581	0	0	0	0	0	0	0	0	0	0	0	0	91,581
350-Material Issues-Major	157,223	112,815	0	77,031	0	77,911	0	48,701	0	35,000	0	40,000	0	548,681
370-Outside Services	848,197	89,166	89,166	89,166	89,166	89,166	89,166	89,166	89,166	89,166	89,166	89,166	89,166	1,918,189
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	6,968	0	0	0	0	0	0	0	0	0	0	0	0	6,968
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	-24,011	-5,366	-5,366	0	0	0	0	0	0	0	0	0	0	-34,743
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	16,438	372	235	294	235	176	137	118	235	137	176	78	98	18,731
914-Pension and Benefits Load	62,507	1,296	819	1,023	819	614	478	409	819	478	614	273	341	70,489
915-Injuries and Damages Load	13,624	295	187	233	187	140	109	93	187	109	140	62	78	15,443
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	12,162	8,066	0	5,508	0	5,571	0	3,482	0	2,503	0	2,860	0	40,151
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	143,426	5,677	2,541	4,665	2,541	4,631	2,493	3,808	2,541	3,445	2,512	3,552	2,473	184,302
926-A and G Loads	183,321	13,892	6,194	11,420	6,194	11,379	6,110	9,365	6,194	8,462	6,143	8,747	6,076	283,496
928-AFUDC Debt Reg	40,399	2,291	2,732	3,127	3,530	3,013	3,412	3,768	4,128	3,398	3,734	4,078	4,422	82,033
929-AFUDC - Equity Regular	34,985	3,005	3,584	4,101	4,630	3,953	4,476	4,942	5,414	4,457	4,898	5,349	5,801	89,595
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	1,689,310	236,261	103,091	200,318	110,301	198,804	108,130	165,352	111,682	148,903	109,633	155,166	109,705	3,446,656
825-Clearings	-1,933,081	0	0	0	-353,378	0	0	0	-411,026	0	0	0	0	-2,697,485
Clr Sum	-1,933,081	0	0	0	-353,378	0	0	0	-411,026	0	0	0	0	-2,697,485
Proj Net	-243,772	236,261	103,091	200,318	-243,077	198,804	108,130	165,352	-299,343	148,903	109,633	155,166	109,705	749,170

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

Cost Year 03

Project 64807015	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	131,739	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	143,739
120-Overtime-General	91,581	0	0	0	0	0	0	0	0	0	0	0	0	91,581
350-Material Issues-Major	548,681	0	0	0	3,000	0	3,000	0	0	0	0	0	0	554,681
370-Outside Services	1,918,189	48,000	48,000	48,000	48,000	48,000	48,000	49,000	49,000	49,000	49,000	49,000	49,000	2,500,189
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	6,968	0	0	0	0	0	0	0	0	0	0	0	0	6,968
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	-34,743	0	0	0	0	0	0	0	0	0	0	0	0	-34,743
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	18,731	78	78	78	78	78	78	78	78	78	78	78	78	19,672
914-Pension and Benefits Load	70,489	273	273	273	273	273	273	273	273	273	273	273	273	73,764
915-Injuries and Damages Load	15,443	62	62	62	62	62	62	62	62	62	62	62	62	16,190
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	40,151	0	0	0	215	0	215	0	0	0	0	0	0	40,580
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	184,302	1,344	1,344	1,344	1,426	1,344	1,426	1,371	1,371	1,371	1,371	1,371	1,371	200,757
926-A and G Loads	283,496	3,293	3,293	3,293	3,494	3,293	3,494	3,360	3,360	3,360	3,360	3,360	3,360	323,816
928-AFUDC Debt Reg	82,033	4,658	4,822	4,987	5,157	4,014	4,180	4,348	4,513	3,528	3,689	3,852	4,015	133,796
929-AFUDC - Equity Regular	89,595	4,199	4,347	4,496	4,649	3,619	3,768	3,919	4,069	3,180	3,326	3,472	3,619	136,257
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	3,446,656	62,907	63,219	63,533	67,355	61,683	65,496	63,412	63,727	61,853	62,160	62,469	62,779	4,207,247
825-Clearings	-2,697,485	0	0	0	-503,374	0	0	0	-441,110	0	0	0	-1,572,591	-5,214,561
Clr Sum	-2,697,485	0	0	0	-503,374	0	0	0	-441,110	0	0	0	-1,572,591	-5,214,561
Proj Net	749,170	62,907	63,219	63,533	-436,020	61,683	65,496	63,412	-377,383	61,853	62,160	62,469	-1,509,812	-1,007,314

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**Project No: 64807113 345kV Wood Structure Replacement**

Company: 002-Transmission Services  
Location: 648 Transmission

Project Information

Construction Start Date 11/1/2013 Estimated Completion Date 12/31/2018

List Interim In-Service Dates

Two times per year in May and December.

Project Need Justification

The current 345kV wood pole lines on the PNM system are nearly 40 years old. These poles have a guyed 5-pole in-line dead-end structures that feature complex conductor and guy attachment hardware that is located in extremely high electric field locations. As these structures have aged, problems associated with wood shrinkage and gaps in bonding have made them vulnerable to pole fires and have caused numerous outages on the Bulk Electric System. These issues are costly and are best mitigated by replacing with steel poles. The steel poles are not as susceptible to fire and will be more sturdy then the 40 year old wood poles.This is a continuation of a project initiated in 2013 and is part of the Long Range Plan program.

Project Alternatives

Alternatives considered include:1) Do nothing and continue with existing risk of outages and framing failures2) Make proactive replacements with in-kind structures, which does not mitigate the issue of future pole fire failures3) Replacement of wood poles with steel upon failure, which is problematic due to the long lead times for steel structure fabrication that can result in extended outages4) Replace current poles with steel pole structures. This option addresses all risks and is the selected option

Technical Aspects

Replacement of 5-pole in-line wood dead-ends with steel pole structures will involves the replacement of associated components including guys, anchors and conductor dead-end hardware and insulators, all of which contribute to continued reliability of the system. Steel poles also provide improved access to these remote structure sites to better facilitates future line patrols.

Project Estimate Approach

In the late 2000's, PNM erected a demonstration structure to determine the feasibility of new design and costs for wood pole replacement. This was used as the basis for developing costs for the larger project. Because the installation work can only be performed during an outage and PNM has limited internal resources available to perform the work, a combination of contract and PNM labor was assumed, which allowed multiple structures to be worked on simultaneously during a line outage. Unique and varied site conditions, as well as permits from multiple land management agencies and access constraints contributed to the selection of a greater than typical contingency. Cost Estimate Breakdown:7% PNM Labor32% Construction Contract Labor32% Major Material (steel structures, guys, anchors, insulators and attachment hardware)29% Other including contingency, overheads and tax

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

Cost Year 01

Project	64807113	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	145,620			0	0	10,000	10,000	10,000	10,000	185,620		
120-Overtime-General	48,168			0	0	0	0	0	0	48,168		
350-Material Issues-Major	524,065			0	0	0	0	0	0	524,065		
370-Outside Services	2,325,536			0	0	70,000	70,000	70,000	70,000	2,605,536		
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	11,743			0	0	0	0	0	0	11,743		
610-Expenses - General	0			0	0	0	0	0	0	0		
805-Land and Land Rights	441			0	0	0	0	0	0	441		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-22,120	-22,120	-19,794	-64,033		
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	14,420			0	0	787	787	787	787	17,568		
914-Pension and Benefits Load	54,788			0	0	2,994	2,994	2,994	2,994	66,764		
915-Injuries and Damages Load	14,326			0	0	652	652	652	652	16,934		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	33,094			0	0	0	0	0	0	33,094		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	283,466			0	0	6,755	6,755	6,755	6,755	310,485		
926-A and G Loads	432,974			0	0	6,656	6,656	6,656	6,656	459,598		
928-AFUDC Debt Reg	344,022			10,169	10,217	10,375	10,619	10,840	9,418	405,660		
929-AFUDC - Equity Regular	410,597			11,013	11,064	11,236	11,500	11,739	10,199	477,349		
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	4,643,261			21,182	21,281	119,455	97,844	98,303	97,666	5,098,992		
825-Clearings	-2,448,540			0	0	0	0	-730,448	0	-3,178,988		
Cir Sum	-2,448,540			0	0	0	0	-730,448	0	-3,178,988		
Proj Net	2,194,721			21,182	21,281	119,455	97,844	-632,145	97,666	1,920,004		

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

Cost Year 02

Project	64807113	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	185,620	0	15,000	15,000	19,000	0	0	0	0	0	0	0	0	234,620	
120-Overtime-General	48,168	0	0	0	0	0	0	0	0	0	0	0	0	48,168	
350-Material Issues-Major	524,065	0	0	0	0	0	0	0	0	0	0	0	0	524,065	
370-Outside Services	2,605,536	32,042	32,042	36,042	42,042	42,042	42,042	48,042	52,042	52,042	52,042	42,042	42,042	3,120,040	
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	11,743	0	0	0	0	0	0	0	0	0	0	0	0	11,743	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	441	0	0	0	0	0	0	0	0	0	0	0	0	441	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	-64,033	-25,386	-25,386	0	0	0	0	0	0	0	0	0	0	-114,805	
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	17,568	0	1,176	1,176	1,490	0	0	0	0	0	0	0	0	21,410	
914-Pension and Benefits Load	66,764	0	4,094	4,094	5,185	0	0	0	0	0	0	0	0	80,136	
915-Injuries and Damages Load	16,934	0	933	933	1,182	0	0	0	0	0	0	0	0	19,982	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	33,094	0	0	0	0	0	0	0	0	0	0	0	0	33,094	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	310,485	872	1,448	1,557	1,874	1,144	1,144	1,307	1,416	1,416	1,416	1,144	1,144	326,363	
926-A and G Loads	459,598	2,153	3,161	3,430	4,102	2,825	2,825	3,228	3,497	3,497	3,497	2,825	2,825	497,466	
928-AFUDC Debt Reg	405,660	11,057	11,178	11,369	11,616	11,844	7,245	7,417	7,605	7,799	7,994	8,177	5,032	513,993	
929-AFUDC - Equity Regular	477,349	14,503	14,662	14,912	15,237	15,535	9,503	9,729	9,975	10,230	10,486	10,725	6,600	619,446	
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	5,098,992	35,240	58,308	88,513	101,727	73,390	62,759	69,723	74,534	74,983	75,435	64,913	57,642	5,936,160	
825-Clearings	-3,178,988	0	0	0	0	-1,837,620	0	0	0	0	0	-1,271,511	0	-6,288,120	
Clr Sum	-3,178,988	0	0	0	0	-1,837,620	0	0	0	0	0	-1,271,511	0	-6,288,120	
Proj Net	1,920,004	35,240	58,308	88,513	101,727	-1,764,231	62,759	69,723	74,534	74,983	75,435	-1,206,598	57,642	-351,960	

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

Cost Year 03

Project	64807113	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	234,620	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	294,620
120-Overtime-General	48,168	0	0	0	0	0	0	0	0	0	0	0	0	48,168
350-Material Issues-Major	524,065	0	0	0	0	0	0	0	0	0	0	0	0	524,065
370-Outside Services	3,120,040	60,995	60,995	60,995	60,995	60,995	61,995	65,995	65,995	65,995	65,995	65,995	65,995	3,882,980
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	11,743	0	0	0	0	0	0	0	0	0	0	0	0	11,743
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	441	0	0	0	0	0	0	0	0	0	0	0	0	441
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	-114,805	0	0	0	0	0	0	0	0	0	0	0	0	-114,805
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	21,410	392	392	392	392	392	392	392	392	392	392	392	392	26,114
914-Pension and Benefits Load	80,136	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	96,510
915-Injuries and Damages Load	19,982	311	311	311	311	311	311	311	311	311	311	311	311	23,714
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	33,094	0	0	0	0	0	0	0	0	0	0	0	0	33,094
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	326,363	1,851	1,851	1,851	1,851	1,851	1,879	1,987	1,987	1,987	1,987	1,987	1,987	349,422
926-A and G Loads	497,466	4,435	4,435	4,435	4,435	4,435	4,502	4,771	4,771	4,771	4,771	4,771	4,771	552,767
928-AFUDC Debt Reg	513,993	5,228	5,449	5,670	5,892	6,116	3,844	4,066	4,295	4,525	4,755	4,988	5,221	574,040
929-AFUDC - Equity Regular	619,446	4,713	4,912	5,111	5,311	5,513	3,465	3,665	3,871	4,079	4,287	4,496	4,706	673,575
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	5,936,160	84,290	84,709	85,129	85,552	85,977	82,753	87,552	87,987	88,424	88,863	89,304	89,748	6,976,448
825-Clearings	-6,288,120	0	0	0	0	-956,227	0	0	0	0	0	0	-2,048,970	-9,293,316
Clr Sum	-6,288,120	0	0	0	0	-956,227	0	0	0	0	0	0	-2,048,970	-9,293,316
Proj Net	-351,960	84,290	84,709	85,129	85,552	-870,250	82,753	87,552	87,987	88,424	88,863	89,304	-1,959,223	-2,316,868



competitively priced from known vendors. Construction is performed under established unit rate contracts with known specialty firms. Where possible, historic data was used to assist in developing estimates. The estimate for this program is \$1.4 million. Of this, less than 5% is associated with direct PNM labor. Approximately 65% is for the purchase of industry standard items such as bushings, switches and relays and the remaining 30% is associated with specialty work including engineered equipment (instrument transformers and breakers) and contract construction for the installation.

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

Cost Year 01

Project	64807413	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	174,120		5,000	15,000	20,000	20,000	20,000	15,000	269,120		
	120-Overtime-General	51,324		0	0	0	0	0	0	51,324		
	350-Material Issues-Major	44,499		0	75,000	75,000	75,000	75,000	0	344,499		
	370-Outside Services	1,618,691		0	17,498	17,498	17,498	17,498	17,498	1,706,180		
	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	16,584		0	0	0	0	0	0	16,584		
	610-Expenses - General	1,927		0	0	0	0	0	0	1,927		
	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	-1,007	-1,007	-1,007	-3,022		
	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	17,106		394	1,181	1,574	1,574	1,574	1,181	24,582		
	914-Pension and Benefits Load	62,711		1,497	4,491	5,988	5,988	5,988	4,491	91,154		
	915-Injuries and Damages Load	16,993		326	978	1,304	1,304	1,304	978	23,187		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	18,150		0	2,715	2,715	2,715	2,715	0	29,010		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	152,337		577	9,132	9,709	9,709	9,709	3,132	194,305		
	926-A and G Loads	259,479		416	8,944	9,360	9,360	9,360	2,704	299,622		
	928-AFUDC Debt Reg	5,574		1,063	1,229	161	484	806	1,020	10,337		
	929-AFUDC - Equity Regular	5,645		1,151	1,331	175	524	873	1,104	10,804		
	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	2,445,138		10,424	137,499	143,484	143,148	143,820	46,100	3,069,613		
	825-Clearings	-3,326,134		0	-615,463	0	0	0	-476,552	-4,418,149		
	Clr Sum	-3,326,134		0	-615,463	0	0	0	-476,552	-4,418,149		
	Proj Net	-880,996		10,424	-477,964	143,484	143,148	143,820	-430,452	-1,348,536		

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

Cost Year 02

Project	64807413	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	269,120	0	0	0	0	0	0	0	0	0	0	0	0	269,120
	120-Overtime-General	51,324	0	0	0	0	0	0	0	0	0	0	0	0	51,324
	350-Material Issues-Major	344,499	0	0	0	0	0	0	0	0	0	0	0	0	344,499
	370-Outside Services	1,706,180	0	0	0	0	0	0	0	0	0	0	0	0	1,706,180
	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	16,584	0	0	0	0	0	0	0	0	0	0	0	0	16,584
	610-Expenses - General	1,927	0	0	0	0	0	0	0	0	0	0	0	0	1,927
	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	-3,022	0	0	0	0	0	0	0	0	0	0	0	0	-3,022
	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	24,582	0	0	0	0	0	0	0	0	0	0	0	0	24,582
	914-Pension and Benefits Load	91,154	0	0	0	0	0	0	0	0	0	0	0	0	91,154
	915-Injuries and Damages Load	23,187	0	0	0	0	0	0	0	0	0	0	0	0	23,187
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	29,010	0	0	0	0	0	0	0	0	0	0	0	0	29,010
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	194,305	0	0	0	0	0	0	0	0	0	0	0	0	194,305
	926-A and G Loads	299,622	0	0	0	0	0	0	0	0	0	0	0	0	299,622
	928-AFUDC Debt Reg	10,337	0	0	0	0	0	0	0	0	0	0	0	0	10,337
	929-AFUDC - Equity Regular	10,804	0	0	0	0	0	0	0	0	0	0	0	0	10,804
	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	3,069,613	0	0	0	0	0	0	0	0	0	0	0	0	3,069,613
	825-Clearings	-4,418,149	0	0	0	0	0	0	0	0	0	0	0	0	-4,418,149
	Clr Sum	-4,418,149	0	0	0	0	0	0	0	0	0	0	0	0	-4,418,149
	Proj Net	-1,348,536	0	0	0	0	0	0	0	0	0	0	0	0	-1,348,536

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

Cost Year 03

Project	64807413	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	269,120	0	0	0	0	0	0	0	0	0	0	0	0	269,120
	120-Overtime-General	51,324	0	0	0	0	0	0	0	0	0	0	0	0	51,324
	350-Material Issues-Major	344,499	0	0	0	0	0	0	0	0	0	0	0	0	344,499
	370-Outside Services	1,706,180	0	0	0	0	0	0	44,478	44,478	44,478	44,478	44,478	44,479	1,973,049
	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	16,584	0	0	0	0	0	0	0	0	0	0	0	0	16,584
	610-Expenses - General	1,927	0	0	0	0	0	0	0	0	0	0	0	0	1,927
	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	-3,022	0	0	0	0	0	0	0	0	0	0	0	0	-3,022
	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	24,582	0	0	0	0	0	0	0	0	0	0	0	0	24,582
	914-Pension and Benefits Load	91,154	0	0	0	0	0	0	0	0	0	0	0	0	91,154
	915-Injuries and Damages Load	23,187	0	0	0	0	0	0	0	0	0	0	0	0	23,187
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	29,010	0	0	0	0	0	0	0	0	0	0	0	0	29,010
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	194,305	0	0	0	0	0	0	1,210	1,210	1,210	1,210	1,210	1,210	201,564
	926-A and G Loads	299,622	0	0	0	0	0	0	2,989	2,989	2,989	2,989	2,989	2,989	317,556
	928-AFUDC Debt Reg	10,337	0	0	0	0	0	0	64	191	127	255	384	513	11,870
	929-AFUDC - Equity Regular	10,804	0	0	0	0	0	0	57	172	115	230	346	462	12,186
	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	3,069,613	0	0	0	0	0	0	48,798	49,040	48,919	49,162	49,406	49,652	3,364,590
	825-Clearings	-4,418,149	0	0	0	0	0	0	0	-73,378	0	0	0	-221,599	-4,713,126
	Clr Sum	-4,418,149	0	0	0	0	0	0	0	-73,378	0	0	0	-221,599	-4,713,126
	Proj Net	-1,348,536	0	0	0	0	0	0	48,798	-24,338	48,919	49,162	49,406	-171,946	-1,348,536

**Project No: 64807414 ROW Clearing Project-LiDAR**

Company: 002-Transmission Services  
Location: 648 Transmission

Project Information

Construction Start Date                      9/1/2014                      Estimated Completion Date                      12/31/2017  
List Interim In-Service Dates

Multiple transmission lines will be cleared on an ongoing basis and work orders closed at that time throughout the project.

Project Need Justification

This project is a continuation of the Vegetation LiDAR project which supplied mapping and imagery data via LiDAR, aerial surveying products and processes, and advanced data processing and end product development capabilities. The data collected will be used to ensure compliance with the new version of the NERC FAC-003-3 reliability standard which took effect July 1, 2014 and also satisfy PNM's Mitigation Plan that it filed with WECC for violations under previous version of FAC-003 standard. LiDAR data will be used to develop work plans using Integrated Vegetation Management techniques (e.g., mowing, hand cutting, herbicide applications, etc.) to control undesirable tree species on the right-of-way (ROW). Prior to any actions, the LiDAR data will be assessed by the Environmental Department (ESD). Once their assessment is completed, they will issue clearances with or without stipulations. Work commenced in August 2014 and is performed as clearances are issued by ESD.

Project Alternatives

Multiple vendors were evaluated to assist with portions of this project. IVM Partners, a consultant, will assist in the development of a sound program using IVM techniques and act as a liaison with Federal agencies and tribal entities. Mckim and Creed will be used for the acquisition of LiDAR. Other vendors were considered but were two to three times more expensive and did not have the bandwidth to fly the lines in a timely manner. Behron Consulting, a third party LiDAR consultant who is familiar the software utilized by the Vegetation Management Department (Clearion), will ensure the project specifications were best suited for the desired deliverables.

Technical Aspects

This data is being used to develop work plans using Integrated Vegetation Management techniques which will be assessed by the Environmental Department (ESD). The ESD will then issue clearances with or without stipulations as needed. Work commenced in August as these clearances were issued by Environmental Dept. It is expected to be complete by 2017. This information will be used for compliance with new version of NERC FAC-003-3 reliability standard which took effect July 1, 2014 and also to satisfy Mitigation Plan filed with WECC for violations under previous version of FAC-003 standard.

#### Project Estimate Approach

Initial estimates included in the Capital Development and Approval Process (CDAP) for the project in July 2014 were estimates based on historical crew costs and the amount of work thought to be on the ROW's. These estimates were made prior to access to LiDAR data, as it was not yet available. Since that time, the LiDAR data has been received and analyzed and adjustments were made to the cost estimate as it became clear that there was significantly more work than originally anticipated. There continues to be uncertainty as to the final project cost due to delays caused by the environmental clearance process of the involved Federal agencies. (External services cost - ~90%, all consulting, vegetation trimming/clearing and the majority of environmental survey and monitoring work completed by contractors) (Labor cost - ~10%, in addition to 100% of Division Forester/Project Manager's time being attributed to the project, ROW, ESD and other Vegetation Management personnel also attribute labor charges to the project.)

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

Cost Year 01

Project	64807414	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	204,772			0	0	0	0	0	0	204,772		
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	4,418,273			209,672	259,431	254,087	307,016	420,073	430,391	6,298,942		
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	986			0	0	0	0	0	0	986		
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	-6,510	-6,510	-6,510	-19,529		
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	16,893			0	0	0	0	0	0	16,893		
914-Pension and Benefits Load	58,646			0	0	0	0	0	0	58,646		
915-Injuries and Damages Load	15,771			0	0	0	0	0	0	15,771		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	28,933			0	0	0	0	0	0	28,933		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	249,917			16,774	20,755	20,327	24,561	33,606	34,431	400,370		
926-A and G Loads	427,744			17,445	21,585	21,140	25,544	34,950	35,809	584,216		
928-AFUDC Debt Reg	104,827			7,186	7,834	2,386	3,125	4,078	5,198	134,634		
929-AFUDC - Equity Regular	113,073			7,782	8,484	2,584	3,385	4,417	5,629	145,353		
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	5,639,834			258,857	318,089	300,523	357,121	490,614	504,948	7,869,987		
825-Clearings	-3,104,676			0	-2,732,189	0	0	0	-1,281,968	-7,118,833		
Cir Sum	-3,104,676			0	-2,732,189	0	0	0	-1,281,968	-7,118,833		
Proj Net	2,535,158			258,857	-2,414,100	300,523	357,121	490,614	-777,020	751,154		

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

Cost Year 02

Project	64807414	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	204,772	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	228,772
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	6,298,942	347,723	338,075	379,297	345,075	357,723	359,472	337,400	373,548	349,648	352,723	329,326	319,678	10,488,630
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	986	0	0	0	0	0	0	0	0	0	0	0	0	986
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	-19,529	-8,349	-8,349	0	0	0	0	0	0	0	0	0	0	-36,227
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	16,893	157	157	157	157	157	157	157	157	157	157	157	157	18,775
914-Pension and Benefits Load	58,646	546	546	546	546	546	546	546	546	546	546	546	546	65,195
915-Injuries and Damages Load	15,771	124	124	124	124	124	124	124	124	124	124	124	124	17,264
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	28,933	0	0	0	0	0	0	0	0	0	0	0	0	28,933
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	400,370	9,535	9,273	10,394	9,463	9,807	9,855	9,254	10,237	9,587	9,671	9,035	8,772	515,252
926-A and G Loads	584,216	23,501	22,853	25,623	23,323	24,173	24,291	22,808	25,237	23,631	23,837	22,265	21,617	867,376
928-AFUDC Debt Reg	134,634	3,831	4,818	5,867	6,944	4,255	5,312	6,346	7,406	4,496	5,533	6,547	7,520	203,510
929-AFUDC - Equity Regular	145,353	5,025	6,320	7,696	9,108	5,581	6,967	8,323	9,714	5,898	7,258	8,588	9,864	235,695
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	7,869,987	384,093	375,817	431,705	396,740	404,367	408,723	386,958	428,969	396,087	401,849	378,588	370,278	12,634,161
825-Clearings	-7,118,833	0	0	0	-1,435,161	0	0	0	-1,532,089	0	0	0	-3,078,892	-13,164,975
Clr Sum	-7,118,833	0	0	0	-1,435,161	0	0	0	-1,532,089	0	0	0	-3,078,892	-13,164,975
Proj Net	751,154	384,093	375,817	431,705	-1,038,421	404,367	408,723	386,958	-1,103,120	396,087	401,849	378,588	-2,708,613	-530,814

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

Cost Year 03

Project	64807414	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	228,772	0	0	0	0	0	0	0	0	0	0	0	0	228,772
	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	10,488,630	0	0	0	0	0	0	0	0	0	0	0	0	10,488,630
	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	986	0	0	0	0	0	0	0	0	0	0	0	0	986
	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	-36,227	0	0	0	0	0	0	0	0	0	0	0	0	-36,227
	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	18,775	0	0	0	0	0	0	0	0	0	0	0	0	18,775
	914-Pension and Benefits Load	65,195	0	0	0	0	0	0	0	0	0	0	0	0	65,195
	915-Injuries and Damages Load	17,264	0	0	0	0	0	0	0	0	0	0	0	0	17,264
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	28,933	0	0	0	0	0	0	0	0	0	0	0	0	28,933
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	515,252	0	0	0	0	0	0	0	0	0	0	0	0	515,252
	926-A and G Loads	867,376	0	0	0	0	0	0	0	0	0	0	0	0	867,376
	928-AFUDC Debt Reg	203,510	0	0	0	0	0	0	0	0	0	0	0	0	203,510
	929-AFUDC - Equity Regular	235,695	0	0	0	0	0	0	0	0	0	0	0	0	235,695
	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	12,634,161	0	0	0	0	0	0	0	0	0	0	0	0	12,634,161
	825-Clearings	-13,164,975	0	0	0	0	0	0	0	0	0	0	0	0	-13,164,975
	Clr Sum	-13,164,975	0	0	0	0	0	0	0	0	0	0	0	0	-13,164,975
	Proj Net	-530,814	0	0	0	0	0	0	0	0	0	0	0	0	-530,814

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*Project No: 64807417 Trans Emergency & Aging Equip*

Company: 002-Transmission Services  
Location: 648 Transmission

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date 12/31/2021

List Interim In-Service Dates

Equipment will be placed in service as it is delivered and installed, with approximately six work orders per year.

Project Need Justification

This project addresses the replacement of failing or functionally obsolete equipment, primarily at transmission stations. This will also involve purchasing specialty equipment with long lead times that cannot be acquired within a reasonable turnaround time during an emergency. Equipment purchased or replaced under this program include relays, switches, and breakers.

Project Alternatives

When an emergency occurs, PNM evaluates alternative for reinstatement of service on a case-by-case basis. Not providing funds for this project and the funds necessary to purchase or replace equipment will further accept delay in addressing these issues until an equipment failure. This may require reconfiguration of the system, loss of redundancy, and loss of load during the time it takes to acquire and install new equipment. It should be noted that these items are not readily available on the market or from other utilities.

Technical Aspects

Through analysis of recent PNM equipment performance, staff knowledge, and industry information, PNM determined those items out of service for an extended period of time could adversely affect our ability to provide reliable service in accordance with established criteria. This equipment may require specialty design or characteristics (especially for direct replacement), further highlighting the need for advanced purchase.

Project Estimate Approach

Through the recent history of PNM's equipment performance, staff knowledge, and industry information, PNM determined those items out of service for an extended period of time could adversely affect its ability to provide reliable service in accordance with established criteria. These items were then evaluated for purchase as emergency spares and/or were directly placed into service. To the extent available, PNM utilized master agreements for the purchase of major equipment such as breakers, switches, and relays. Pricing has been evaluated at the time of development/renewal of the agreement. Construction is performed under established unit rate contracts with known specialty firms. Where possible, historic data was used to assist in developing estimates.

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

Cost Year 01

Project	64807417	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	64807417	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	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	240,000
370-Outside Services	0	0	60,000	50,000	50,000	60,000	60,000	70,000	60,000	70,000	70,000	42,000	30,500	622,500
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	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	17,160
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	544	2,176	1,904	1,904	2,176	2,176	2,448	2,176	2,448	2,448	1,686	1,374	23,460
926-A and G Loads	0	1,344	5,376	4,704	4,704	5,376	5,376	6,048	5,376	6,048	6,048	4,166	3,394	57,960
928-AFUDC Debt Reg	0	30	177	396	601	823	1,060	721	972	1,224	1,492	1,721	1,896	11,113
929-AFUDC - Equity Regular	0	40	232	519	789	1,079	1,390	946	1,275	1,605	1,957	2,258	2,487	14,576
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	23,388	89,391	78,953	79,428	90,884	91,432	101,593	91,229	102,755	103,374	73,262	61,080	986,769
825-Clearings	0	0	0	0	0	0	-226,738	0	0	0	0	0	-380,016	-606,754
Cir Sum	0	0	0	0	0	0	-226,738	0	0	0	0	0	-380,016	-606,754
Proj Net	0	23,388	89,391	78,953	79,428	90,884	-135,306	101,593	91,229	102,755	103,374	73,262	-318,936	380,016

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

Cost Year 03

Project	64807417	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	622,500	68,285	69,782	69,782	69,782	69,782	119,782	119,782	119,782	119,782	119,782	119,782	120,435	1,809,045
	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	17,160	0	0	0	0	0	0	0	0	0	0	0	0	17,160
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	23,460	1,857	1,898	1,898	1,898	1,898	3,258	3,258	3,258	3,258	3,258	3,258	3,276	55,734
	926-A and G Loads	57,960	4,589	4,689	4,689	4,689	4,689	8,049	8,049	8,049	8,049	8,049	8,049	8,093	137,696
	928-AFUDC Debt Reg	11,113	1,090	1,293	1,499	1,705	1,913	2,194	2,547	2,902	943	1,290	1,639	1,990	32,118
	929-AFUDC - Equity Regular	14,576	983	1,165	1,351	1,537	1,725	1,978	2,296	2,616	850	1,163	1,477	1,794	33,511
	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	986,769	76,804	78,828	79,219	79,613	80,008	135,261	135,933	136,608	132,883	133,543	134,206	135,589	2,325,264
	825-Clearings	-606,754	0	0	0	0	0	0	0	-886,717	0	0	0	-831,793	-2,325,264
	Clr Sum	-606,754	0	0	0	0	0	0	0	-886,717	0	0	0	-831,793	-2,325,264
Proj Net		380,016	76,804	78,828	79,219	79,613	80,008	135,261	135,933	-750,109	132,883	133,543	134,206	-696,204	0

***Project No: 64807513 Transmission Breaker Replacement***

Company: 002-Transmission Services  
Location: 648 Transmission

Project Information

Construction Start Date 8/19/2013 Estimated Completion Date 11/30/2020

List Interim In-Service Dates

N/A

Project Need Justification

This project will replace aging circuit breakers over 60 years old. The performance of system has been hindered due to these breakers' need for extensive unplanned maintenance, unavailability of spare parts, and functionally obsolete mechanisms. Rather than risk failure during equipment operation, it is preferred to replace these breakers now. All breakers lie within the Albuquerque metropolitan area, within the 115kV, 230kV and 345kV voltage classes. The failure of any of these breakers destabilize the system and lead to a system outage. The funds will be used to replace the breakers, conduit, control switches, control cable, and grounded platforms for safe operation and maintenance.

Project Alternatives

The only alternative would be continued use of existing breakers with a greater risk of failure. This option was not selected primarily because parts for these older breakers are increasingly hard to find and the risk of impacts to system reliability is too great.

Technical Aspects

Outages will be required to install these breakers and it is anticipated only one breaker per ring can serviced a time. The replacement breakers will be the more modern SF6-gas breaker technology, provide an increase in system reliability, and allow safe operation and maintenance. The installation work will be on-going each year.

Project Estimate Approach

This project was estimated using standard procedures used by System Engineering. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment like circuit breakers, alliance vendors provide information regarding the costs and schedules of these major items. The breaker costs are estimated at approximately 25% of the total cost to install. Engineering costs are estimated at approximately 25% of the cost to install. Construction labor and contractor estimates were created from past projects that are similar in nature, and are estimated at approximately 50% of the cost to install. For this project, previous West Mesa 345kV breaker replacements were referenced. All overhead costs are standard and calculated using the approved corporate software.

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

Cost Year 01

Project	64807513	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	291,206		1,000	1,000	1,000	1,000	1,000	1,000	297,206		
	120-Overtime-General	66,170		0	0	0	0	0	0	66,170		
	350-Material Issues-Major	124,138		0	0	0	0	0	0	124,138		
	370-Outside Services	4,130,671		10,000	10,000	10,000	0	0	150,000	4,310,671		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	5,335		0	0	0	0	0	0	5,335		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	4,919		0	0	0	0	0	0	4,919		
	610-Expenses - General	3,390		0	0	0	0	0	0	3,390		
	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	27,281		79	79	79	79	79	79	27,753		
	914-Pension and Benefits Load	100,017		299	299	299	299	299	299	101,813		
	915-Injuries and Damages Load	26,818		65	65	65	65	65	65	27,209		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	29,060		0	0	0	0	0	0	29,060		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	225,353		915	915	915	115	115	12,115	240,446		
	926-A and G Loads	400,911		915	915	915	83	83	12,563	416,386		
	928-AFUDC Debt Reg	157,465		3,193	3,238	3,283	3,316	3,335	3,551	177,382		
	929-AFUDC - Equity Regular	202,672		3,458	3,507	3,556	3,591	3,612	3,845	224,241		
	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	5,795,407		19,926	20,019	20,113	8,548	8,588	183,518	6,056,120		
	825-Clearings	-4,673,346		0	0	0	0	0	0	-4,673,346		
	Clr Sum	-4,673,346		0	0	0	0	0	0	-4,673,346		
	Proj Net	1,122,061		19,926	20,019	20,113	8,548	8,588	183,518	1,382,774		

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

Cost Year 02

Project	64807513	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	297,206	66,400	66,400	66,400	40,000	10,000	1,400	1,400	1,400	66,400	66,400	1,400	0	684,806
120-Overtime-General	66,170	0	0	0	0	0	0	0	0	0	0	0	0	66,170
350-Material Issues-Major	124,138	47,000	47,000	47,000	0	0	0	0	0	47,000	20,000	0	0	332,138
370-Outside Services	4,310,671	150,000	350,000	160,000	30,000	35,000	10,000	10,000	85,000	115,000	150,000	0	0	5,405,671
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	5,335	0	0	0	0	0	0	0	0	0	0	0	0	5,335
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	4,919	0	0	0	0	0	0	0	0	0	0	0	0	4,919
610-Expenses - General	3,390	0	0	0	0	0	0	0	0	0	0	0	0	3,390
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	27,753	5,206	5,206	5,206	3,136	784	110	110	110	5,206	5,206	110	0	58,141
914-Pension and Benefits Load	101,813	18,121	18,121	18,121	10,916	2,729	382	382	382	18,121	18,121	382	0	207,589
915-Injuries and Damages Load	27,209	4,130	4,130	4,130	2,488	622	87	87	87	4,130	4,130	87	0	51,318
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	29,060	3,361	3,361	3,361	0	0	0	0	0	3,361	1,430	0	0	43,932
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	240,446	7,911	13,351	8,183	2,354	1,336	326	326	2,366	6,959	7,177	54	0	290,790
926-A and G Loads	416,386	17,700	31,140	18,372	4,704	3,024	766	766	5,806	15,348	15,886	94	0	529,994
928-AFUDC Debt Reg	177,382	4,772	5,920	7,089	7,685	7,923	8,057	17	158	650	1,397	1,784	0	222,832
929-AFUDC - Equity Regular	224,241	6,259	7,765	9,298	10,080	10,392	10,568	22	207	853	1,832	2,340	0	283,857
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	6,056,120	330,860	552,393	347,159	111,362	71,810	31,696	13,110	95,516	283,027	291,578	6,250	0	8,190,883
825-Clearings	-4,673,346	0	0	0	0	0	-3,116,116	0	0	0	0	-689,482	0	-8,478,944
Clr Sum	-4,673,346	0	0	0	0	0	-3,116,116	0	0	0	0	-689,482	0	-8,478,944
Proj Net	1,382,774	330,860	552,393	347,159	111,362	71,810	-3,084,420	13,110	95,516	283,027	291,578	-683,232	0	-288,061

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

Cost Year 03

Project	64807513	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	684,806	0	0	0	0	0	0	0	0	0	0	0	0	684,806	
120-Overtime-General	66,170	0	0	0	0	0	0	0	0	0	0	0	0	66,170	
350-Material Issues-Major	332,138	0	0	0	0	0	0	0	0	0	0	0	0	332,138	
370-Outside Services	5,405,671	0	0	0	0	0	0	0	0	0	0	0	0	5,405,671	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	5,335	0	0	0	0	0	0	0	0	0	0	0	0	5,335	
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	4,919	0	0	0	0	0	0	0	0	0	0	0	0	4,919	
610-Expenses - General	3,390	0	0	0	0	0	0	0	0	0	0	0	0	3,390	
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	58,141	0	0	0	0	0	0	0	0	0	0	0	0	58,141	
914-Pension and Benefits Load	207,589	0	0	0	0	0	0	0	0	0	0	0	0	207,589	
915-Injuries and Damages Load	51,318	0	0	0	0	0	0	0	0	0	0	0	0	51,318	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	43,932	0	0	0	0	0	0	0	0	0	0	0	0	43,932	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	290,790	0	0	0	0	0	0	0	0	0	0	0	0	290,790	
926-A and G Loads	529,994	0	0	0	0	0	0	0	0	0	0	0	0	529,994	
928-AFUDC Debt Reg	222,832	0	0	0	0	0	0	0	0	0	0	0	0	222,832	
929-AFUDC - Equity Regular	283,857	0	0	0	0	0	0	0	0	0	0	0	0	283,857	
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	8,190,883	0	0	0	0	0	0	0	0	0	0	0	0	8,190,883	
825-Clearings	-8,478,944	0	0	0	0	0	0	0	0	0	0	0	0	-8,478,944	
Clr Sum	-8,478,944	0	0	0	0	0	0	0	0	0	0	0	0	-8,478,944	
Proj Net	-288,061	0	0	0	0	0	0	0	0	0	0	0	0	-288,061	

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**Project No: 64807516 Asset Health Monitoring Program**

Company: 002-Transmission Services  
Location: 648 Transmission

Project Information

<u>Construction Start Date</u>	10/1/2016	<u>Estimated Completion Date</u>	6/30/2017
<u>List Interim In-Service Dates</u>			
<u>Project Need Justification</u>			

The purpose for this project is the installation of complementary software that will process data produced from the asset health monitoring equipment to be installed in various locations, as well as offline data from Cascade and Maximo. This software will be installed in the Electric Service Center on servers to be managed by the Technical Maintenance Management Department for NM Operations. This project addresses the need to transition the business from a time-based maintenance approach to a condition-based maintenance approach. By introducing this health monitoring software, the full benefits of the monitoring equipment can be realized. The software will assist planning and maintenance engineers to prioritize maintenance expenditures. By not completing this project, equipment may be replaced too early, causing unnecessary capital expenditure, or too late, causing outages and unplanned maintenance.

Project Alternatives

Other than remaining at the current state, there are no other alternatives. Current processes are too manual and labor intensive, and leads to inefficient practices that do not allow the business to properly plan for and execute substation equipment maintenance.

Technical Aspects

This project involves Business Technology Services (BTS) and OT who will perform a detailed technical needs assessment to determine which software will be purchased. The software will be server based and integrated into Cascade, Maximo and OSI Pi-Historian. The software executes algorithms using data obtained from various online and offline data sources to generate condition codes and substation equipment health indices. The outputs from the software can then be used to monitor equipment health in real time for operational and strategic planning decisions.

Project Estimate Approach

This project was estimated using actual costs solicited from other utilities for similar programs along with estimates from PNM's BTS department based on similar labor efforts from past projects. Along with these two resources, vendors were contacted to provide estimated costs and schedule.

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

Cost Year 01

Project	64807516	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	4,000	4,000	4,000	4,000	0	16,000		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	20,000	0	0	20,000		
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	315	315	315	315	0	1,259		
914-Pension and Benefits Load	0			0	1,198	1,198	1,198	1,198	0	4,790		
915-Injuries and Damages Load	0			0	261	261	261	261	0	1,043		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	724	0	0	724		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	462	462	2,062	462	0	3,447		
926-A and G Loads	0			0	333	333	1,997	333	0	2,995		
928-AFUDC Debt Reg	0			0	7	22	64	106	114	314		
929-AFUDC - Equity Regular	0			0	8	24	70	115	124	340		
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	6,583	6,614	30,690	6,789	238	50,914		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	0			0	6,583	6,614	30,690	6,789	238	50,914		



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

Cost Year 02

Project	64807516	Year	2017												
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	230,000	0	0	0	0	0	0	246,000	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	20,000	0	0	0	0	0	0	0	0	0	0	0	0	20,000	
370-Outside Services	0	0	0	0	0	0	960,000	0	0	0	0	0	0	960,000	
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	1,259	0	0	0	0	0	18,032	0	0	0	0	0	0	19,291	
914-Pension and Benefits Load	4,790	0	0	0	0	0	62,767	0	0	0	0	0	0	67,557	
915-Injuries and Damages Load	1,043	0	0	0	0	0	14,306	0	0	0	0	0	0	15,349	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	724	0	0	0	0	0	0	0	0	0	0	0	0	724	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	3,447	0	0	0	0	0	34,955	0	0	0	0	0	0	38,402	
926-A and G Loads	2,995	0	0	0	0	0	79,968	0	0	0	0	0	0	82,963	
928-AFUDC Debt Reg	314	133	134	134	135	136	1,961	0	0	0	0	0	0	2,947	
929-AFUDC - Equity Regular	340	174	175	176	177	178	2,573	0	0	0	0	0	0	3,794	
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	50,914	307	309	311	312	314	1,404,562	0	0	0	0	0	0	1,457,029	
825-Clearings	0	0	0	0	0	0	-1,457,029	0	0	0	0	0	0	-1,457,029	
Clr Sum	0	0	0	0	0	0	-1,457,029	0	0	0	0	0	0	-1,457,029	
Proj Net	50,914	307	309	311	312	314	-52,467	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	64807516	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jui	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	246,000	0	0	0	0	0	0	0	0	0	0	0	0	246,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	20,000	0	0	0	0	0	0	0	0	0	0	0	0	20,000
	370-Outside Services	960,000	0	0	0	0	0	0	0	0	0	0	0	0	960,000
	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	19,291	0	0	0	0	0	0	0	0	0	0	0	0	19,291
	914-Pension and Benefits Load	67,557	0	0	0	0	0	0	0	0	0	0	0	0	67,557
	915-Injuries and Damages Load	15,349	0	0	0	0	0	0	0	0	0	0	0	0	15,349
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	724	0	0	0	0	0	0	0	0	0	0	0	0	724
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	38,402	0	0	0	0	0	0	0	0	0	0	0	0	38,402
	926-A and G Loads	82,963	0	0	0	0	0	0	0	0	0	0	0	0	82,963
	928-AFUDC Debt Reg	2,947	0	0	0	0	0	0	0	0	0	0	0	0	2,947
	929-AFUDC - Equity Regular	3,794	0	0	0	0	0	0	0	0	0	0	0	0	3,794
	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	1,457,029	0	0	0	0	0	0	0	0	0	0	0	0	1,457,029
	825-Clearings	-1,457,029	0	0	0	0	0	0	0	0	0	0	0	0	-1,457,029
	Clr Sum	-1,457,029	0	0	0	0	0	0	0	0	0	0	0	0	-1,457,029
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Project No: 64807713 115kV Circuit Breaker Replacement for Fault Duty**

Company: 002-Transmission Services  
Location: 648 Transmission

Project Information

Construction Start Date 1/1/2014 Estimated Completion Date 9/30/2016

List Interim In-Service Dates

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Project Need Justification

Over time, system use and degradation impact the ability if a breaker to resist a fault. Recently a study was performed to determine the necessary fault duty rating of critical breakers in the Albuquerque metropolitan area (fault current is the electrical current that flows through a system during an electrical fault. Fault current that exceeds the current ratings of breaker protection could result in catastrophic failure of those breakers). This study identified several breakers that require higher ratings. Many of these breakers are older oil filled circuit breakers that date back to 1957. These breakers are reaching the end of their useful life and should therefore be replaced. The funds would pay for the purchase of new breakers as well as additional equipment including conduit, control switches, control cable, and grounded platforms for safe operation of the breaker. The new breakers will be the industry accepted SF-6 gas breaker designs that are rated to handle higher levels of fault current. Costs also cover internal construction labor, and internal and external engineering and construction management.

Project Alternatives

There are two available alternatives to consider1) The do nothing option does not address the system reliability risks and was therefore eliminated from consideration 2) Replace the breakers with similar oil breakers does not address the issue of needing breakers with higher fault ratingsGiven these alternatives, the decision was made to purchase the newer breakers described in the Justification section

Technical Aspects

Replace the existing 115 kV circuit breakers with new industry accepted SF-6 gas breaker designs that are able to handle higher levels of fault current. The breakers that will be replaced are located in the metropolitan area at the North, Reeves, Person, Sandia, and West Mesa stations. The work is to be scheduled based on station risk, with work being done at one station at a time . The breakers will be replaced with modern breakers with improved fault duty ratings that will support perceived system needs, and increase the safe operation of the transmission grid throughout the Albuquerque Metropolitan area.

Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. Engineering costs are estimated at approximately 15% of the cost to install. Labor and contractor estimates were created from grading and gravel replacement work that were similar in nature, and account for approximately 75% of the cost to install. All overhead costs are standard and calculated using the approved corporate software.

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

Cost Year 01

Project	64807713	Year	2016	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Cost_Type	Bal 6/30/16								
	110-Straight Time-General	617,331		39,900	39,900	1,400	0	0	0	698,531
	120-Overtime-General	174,182		0	0	0	0	0	0	174,182
	350-Material Issues-Major	249,788		20,000	20,000	0	0	0	0	289,788
	370-Outside Services	3,760,572		43,000	53,000	10,000	64,053	64,053	39,053	4,033,731
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	1,011		0	0	0	0	0	0	1,011
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0
	530-Employee Expense	29,209		0	0	0	0	0	0	29,209
	610-Expenses - General	-103,496		0	0	0	0	0	0	-103,496
	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	-174	-174	-174	-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	63,317		3,140	3,140	110	0	0	0	69,708
	914-Pension and Benefits Load	231,302		11,946	11,946	419	0	0	0	255,613
	915-Injuries and Damages Load	60,228		2,601	2,601	91	0	0	0	65,522
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0
	921-Stores / Purchasing Load	29,937		724	724	0	0	0	0	31,385
	922-Minor Material Load	0		0	0	0	0	0	0	0
	925-E and S Loads	268,555		9,647	10,447	962	5,124	5,124	3,124	302,983
	926-A and G Loads	445,880		8,561	9,393	948	5,329	5,329	3,249	478,691
	928-AFUDC Debt Reg	141,928		1,566	1,901	2,096	84	252	388	148,213
	929-AFUDC - Equity Regular	174,583		1,696	2,058	2,269	91	273	420	181,390
	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	6,144,328		142,781	155,111	18,296	74,506	74,856	46,059	6,655,937
	825-Clearings	-6,327,808		0	0	-941,044	0	0	-195,422	-7,464,274
	Clr Sum	-6,327,808		0	0	-941,044	0	0	-195,422	-7,464,274
Proj Net		-183,480		142,781	155,111	-922,749	74,506	74,856	-149,363	-808,337

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

Cost Year 02

Project	64807713	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	698,531	0	0	0	0	0	0	0	0	0	0	0	0	698,531
	120-Overtime-General	174,182	0	0	0	0	0	0	0	0	0	0	0	0	174,182
	350-Material Issues-Major	289,788	0	0	0	0	0	0	0	0	0	0	0	0	289,788
	370-Outside Services	4,033,731	0	0	0	0	0	0	0	0	0	0	0	0	4,033,731
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	1,011	0	0	0	0	0	0	0	0	0	0	0	0	1,011
	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	29,209	0	0	0	0	0	0	0	0	0	0	0	0	29,209
	610-Expenses - General	-103,496	0	0	0	0	0	0	0	0	0	0	0	0	-103,496
	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	-523	0	0	0	0	0	0	0	0	0	0	0	0	-523
	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	69,708	0	0	0	0	0	0	0	0	0	0	0	0	69,708
	914-Pension and Benefits Load	255,613	0	0	0	0	0	0	0	0	0	0	0	0	255,613
	915-Injuries and Damages Load	65,522	0	0	0	0	0	0	0	0	0	0	0	0	65,522
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	31,385	0	0	0	0	0	0	0	0	0	0	0	0	31,385
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	302,983	0	0	0	0	0	0	0	0	0	0	0	0	302,983
	926-A and G Loads	478,691	0	0	0	0	0	0	0	0	0	0	0	0	478,691
	928-AFUDC Debt Reg	148,213	0	0	0	0	0	0	0	0	0	0	0	0	148,213
	929-AFUDC - Equity Regular	181,390	0	0	0	0	0	0	0	0	0	0	0	0	181,390
	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	6,655,937	0	0	0	0	0	0	0	0	0	0	0	0	6,655,937
	825-Clearings	-7,464,274	0	0	0	0	0	0	0	0	0	0	0	0	-7,464,274
	Clr Sum	-7,464,274	0	0	0	0	0	0	0	0	0	0	0	0	-7,464,274
	Proj Net	-808,337	0	0	0	0	0	0	0	0	0	0	0	0	-808,337

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

Cost Year 03

Project 64807713	Year 2018													
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	698,531	0	0	0	0	0	0	0	0	0	0	0	0	698,531
120-Overtime-General	174,182	0	0	0	0	0	0	0	0	0	0	0	0	174,182
350-Material Issues-Major	289,788	0	0	0	0	0	0	0	0	0	0	0	0	289,788
370-Outside Services	4,033,731	0	0	0	0	0	0	0	0	0	0	0	0	4,033,731
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	1,011	0	0	0	0	0	0	0	0	0	0	0	0	1,011
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	29,209	0	0	0	0	0	0	0	0	0	0	0	0	29,209
610-Expenses - General	-103,496	0	0	0	0	0	0	0	0	0	0	0	0	-103,496
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	-523	0	0	0	0	0	0	0	0	0	0	0	0	-523
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	69,708	0	0	0	0	0	0	0	0	0	0	0	0	69,708
914-Pension and Benefits Load	255,613	0	0	0	0	0	0	0	0	0	0	0	0	255,613
915-Injuries and Damages Load	65,522	0	0	0	0	0	0	0	0	0	0	0	0	65,522
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	31,385	0	0	0	0	0	0	0	0	0	0	0	0	31,385
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	302,983	0	0	0	0	0	0	0	0	0	0	0	0	302,983
926-A and G Loads	478,691	0	0	0	0	0	0	0	0	0	0	0	0	478,691
928-AFUDC Debt Reg	148,213	0	0	0	0	0	0	0	0	0	0	0	0	148,213
929-AFUDC - Equity Regular	181,390	0	0	0	0	0	0	0	0	0	0	0	0	181,390
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	6,655,937	0	0	0	0	0	0	0	0	0	0	0	0	6,655,937
825-Clearings	-7,464,274	0	0	0	0	0	0	0	0	0	0	0	0	-7,464,274
Clr Sum	-7,464,274	0	0	0	0	0	0	0	0	0	0	0	0	-7,464,274
Proj Net	-808,337	0	0	0	0	0	0	0	0	0	0	0	0	-808,337

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***Project No: 64807716 115kV Breaker Replace Fault Current***

Company: 002-Transmission Services  
Location: 648 Transmission

Project Information

Construction Start Date Estimated Completion Date 5/31/2018

List Interim In-Service Dates

Project Need Justification

Over time breakers experience wear and tear and age to the point where it becomes more difficult for the breaker to resist fault. Recently, studies were performed to determine the necessary fault duty rating of critical breakers in the Albuquerque metropolitan area. This study identified a number of breakers that require higher fault current ratings. Fault current is the electrical current that flows through a system during an electrical fault. Fault current that exceeds the current ratings of breaker protection could result in catastrophic failure of those breakers, and allows the fault to continue onward to the next point of protection until successfully stopped. Many of the breakers that were identified are older oil filled circuit breakers, with some dating back to 1957. These breakers are reaching the end of their useful life and therefore will need to be replaced. If these breakers are not replaced, the risk of exposing the breaker to a fault significantly higher than its fault duty rating would increase and could result in the catastrophic failure of the breaker, damage to other equipment in the station yard (e.g., transformers, surge arrestors, switches, etc.), which could negatively impact system reliability. This project involves replacing the aging oil breakers with new SF-6 gas breakers. These breakers are the industry standard and are rated to handle higher levels of fault current. The funds would be used to pay for the purchase of the breakers and other equipment (e.g., conduit, control switches, control cable, and grounded platforms for safe operation of the breaker) as well as internal construction labor, and internal and external engineering and construction management.

Project Alternatives

The two alternatives evaluated include:1) The do nothing approach, which was not selected as it does not address the underlying system reliability issues and personnel safety risk posed by older equipment;2) Replace the breakers, which would address the system reliability risk and reduce risk to PNM personnel.The replacement options was ultimately the options selected.

Technical Aspects

Replace the current 115 kV circuit breakers that are vulnerable to fault current greater than the breaker rating or within 94% of the breaker rating with new SF-6 gas breakers. The breakers that will be replaced are located in the metropolitan area at the West Mesa station. The new breakers will address perceived system needs and reduce the risk of catastrophic breaker failure and associated issues (e.g., damaged equipment, system reliability issues, safety risk, etc.)

Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment (circuit breakers) we contacted our alliance vendors (HVB and Siemens) and requested information regarding the costs and schedules of these major items. The breaker costs are estimated at approximately 25% of the total cost to

install. Engineering costs are estimated at approximately 25% of the cost to install. Labor and contractor estimates were created from past breaker replacement projects that are similar in nature, and account for approximately 50% of the cost to install. For this project the North, Person, and Reeves 115kV breaker replacements were referenced. Labor and contractor estimates were created from past projects that are similar in nature. For this project, the West Mesa and Person Breaker Replacements were referenced. All overhead costs are standard and calculated using the approved corporate software.



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

Cost Year 01

Project	64807716	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	64807716	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	30,000	0	0	0	0	30,000	40,000	35,000	30,000	165,000
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	190,000	0	0	0	190,000
370-Outside Services	0	0	0	0	305,000	30,000	30,000	30,000	30,000	275,000	30,000	30,000	30,000	790,000
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	2,352	0	0	0	0	2,352	3,136	2,744	2,352	12,936
914-Pension and Benefits Load	0	0	0	0	8,187	0	0	0	0	8,187	10,916	9,552	8,187	45,029
915-Injuries and Damages Load	0	0	0	0	1,866	0	0	0	0	1,866	2,488	2,177	1,866	10,263
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	13,585	0	0	0	13,585
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	9,449	816	816	816	816	13,801	2,354	2,162	1,969	33,000
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	356,854	30,816	30,816	30,816	30,816	534,791	88,894	81,634	74,374	1,259,812
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	356,854	30,816	30,816	30,816	30,816	534,791	88,894	81,634	74,374	1,259,812

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

Cost Year 03

Project	64807716	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	165,000	30,000	30,000	30,000	30,000	0	0	0	0	0	0	0	0	285,000	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	190,000	190,000	0	0	0	0	0	0	0	0	0	0	0	380,000	
370-Outside Services	790,000	200,000	30,000	30,000	30,000	0	0	0	0	0	0	0	0	1,080,000	
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	12,936	2,352	2,352	2,352	2,352	0	0	0	0	0	0	0	0	22,344	
914-Pension and Benefits Load	45,029	8,187	8,187	8,187	8,187	0	0	0	0	0	0	0	0	77,777	
915-Injuries and Damages Load	10,263	1,866	1,866	1,866	1,866	0	0	0	0	0	0	0	0	17,727	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	13,585	13,585	0	0	0	0	0	0	0	0	0	0	0	27,170	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	33,000	11,761	1,969	1,969	1,969	0	0	0	0	0	0	0	0	50,669	
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	1,259,812	457,751	74,374	74,374	74,374	0	0	0	0	0	0	0	0	1,940,687	
825-Clearings	0	0	0	0	0	-2,145,550	0	0	0	0	0	0	0	-2,145,550	
Clr Sum	0	0	0	0	0	-2,145,550	0	0	0	0	0	0	0	-2,145,550	
Proj Net	1,259,812	457,751	74,374	74,374	74,374	-2,145,550	0	0	0	0	0	0	0	-204,863	

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**Project No: 64828113 Substation Remote Access**

Company: 002-Transmission Services  
Location: 648 Transmission

Project Information

Construction Start Date                      6/2/2014                      Estimated Completion Date                      10/31/2016

List Interim In-Service Dates  
N/A

Project Need Justification

Current NERC requirements for remote data gathering and programming of transmission circuit protective equipment requires a high level of cybersecurity and future requirements will require certain turnaround times for the retrieval and analysis of system performance information. Facilities for this secure path are not in place at this time and require on-site data collection and programming of protective equipment such as relays. This is inefficient and does not provide data in an adequate time frame to meet the operational needs or future compliance requirements.

Project Alternatives

No alternative exists for this project and inaction will leave the system vulnerable for hours as crews may need to report to physical locations distant from staging areas. This ultimately leads to higher labor costs and distracts from needed repairs. In addition, the long travel time may exceed the requirements for response by NERC.

Technical Aspects

Work will involve the installation of a commercially available system custom designed to include features such as employee identification, multiple password protection, data security and validation, and support of existing protective equipment, and alarms if a malfunction or error should occur. Additional equipment to be installed includes servers, firewalls, hardware, and software at control center and key substations. Vendors will provide the product and perform installation including functionality testing.

Project Estimate Approach

Key project requirements were developed with the combination of BTS staff and New Mexico Operations staff. Competitive proposals were secured and from these proposals, a cost estimate was developed which includes vendor product and installation as well as in-house support. From the bids, two vendors were invited to present their project options and a vendor was chosen primarily based on the ability to integrate easily with other existing PNM equipment thereby reducing cost and implementation time. Of the estimated cost, approximately 10% is internal labor including project management, engineering support, BTS support, and on-site inspection/coordination. Another 5% is associated with the PNM provided equipment (servers, etc.). The remaining costs come from vendors and include the vendor's time, equipment, programming, testing, and installation.

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

Cost Year 01

Project	64828113	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	190,382			10,000	0	0	0	0	0	200,382		
120-Overtime-General	11,238			0	0	0	0	0	0	11,238		
350-Material Issues-Major	0			0	0	0	0	0	0	0		
370-Outside Services	107,734			5,000	5,000	0	0	0	0	117,734		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	38,951			0	0	0	0	0	0	38,951		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	31,457			0	0	0	0	0	0	31,457		
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	-2,360	0	0	-2,360		
426-Capitalized Interest	77,004			7,079	7,168	6,656	2,365	0	0	100,272		
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	16,695			787	0	0	0	0	0	17,482		
914-Pension and Benefits Load	58,395			2,994	0	0	0	0	0	61,389		
915-Injuries and Damages Load	15,369			652	0	0	0	0	0	16,021		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	7,196			0	0	0	0	0	0	7,196		
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	105,496			1,248	416	0	0	0	0	107,160		
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	659,915			27,760	12,584	6,656	5	0	0	706,920		
825-Clearings	0			0	0	-1,046,227	-563,358	0	0	-1,609,585		
Clr Sum	0			0	0	-1,046,227	-563,358	0	0	-1,609,585		
Proj Net	659,915			27,760	12,584	-1,039,570	-563,353	0	0	-902,665		

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

Cost Year 02

Project	64828113	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	200,382	0	0	0	0	0	0	0	0	0	0	0	0	200,382
	120-Overtime-General	11,238	0	0	0	0	0	0	0	0	0	0	0	0	11,238
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	117,734	0	0	0	0	0	0	0	0	0	0	0	0	117,734
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	38,951	0	0	0	0	0	0	0	0	0	0	0	0	38,951
	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	31,457	0	0	0	0	0	0	0	0	0	0	0	0	31,457
	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	-2,360	0	0	0	0	0	0	0	0	0	0	0	0	-2,360
	426-Capitalized Interest	100,272	0	0	0	0	0	0	0	0	0	0	0	0	100,272
	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	17,482	0	0	0	0	0	0	0	0	0	0	0	0	17,482
	914-Pension and Benefits Load	61,389	0	0	0	0	0	0	0	0	0	0	0	0	61,389
	915-Injuries and Damages Load	16,021	0	0	0	0	0	0	0	0	0	0	0	0	16,021
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	7,196	0	0	0	0	0	0	0	0	0	0	0	0	7,196
	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	107,160	0	0	0	0	0	0	0	0	0	0	0	0	107,160
	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	706,920	0	0	0	0	0	0	0	0	0	0	0	0	706,920
	825-Clearings	-1,609,585	0	0	0	0	0	0	0	0	0	0	0	0	-1,609,585
	Clr Sum	-1,609,585	0	0	0	0	0	0	0	0	0	0	0	0	-1,609,585
	Proj Net	-902,665	0	0	0	0	0	0	0	0	0	0	0	0	-902,665

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

Cost Year 03

Project	64828113	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	200,382	0	0	0	0	0	0	0	0	0	0	0	0	200,382
	120-Overtime-General	11,238	0	0	0	0	0	0	0	0	0	0	0	0	11,238
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	117,734	0	0	0	0	0	0	0	0	0	0	0	0	117,734
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	38,951	0	0	0	0	0	0	0	0	0	0	0	0	38,951
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	31,457	0	0	0	0	0	0	0	0	0	0	0	0	31,457
	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	-2,360	0	0	0	0	0	0	0	0	0	0	0	0	-2,360
	426-Capitalized Interest	100,272	0	0	0	0	0	0	0	0	0	0	0	0	100,272
	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	17,482	0	0	0	0	0	0	0	0	0	0	0	0	17,482
	914-Pension and Benefits Load	61,389	0	0	0	0	0	0	0	0	0	0	0	0	61,389
	915-Injuries and Damages Load	16,021	0	0	0	0	0	0	0	0	0	0	0	0	16,021
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	7,196	0	0	0	0	0	0	0	0	0	0	0	0	7,196
	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	107,160	0	0	0	0	0	0	0	0	0	0	0	0	107,160
	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	706,920	0	0	0	0	0	0	0	0	0	0	0	0	706,920
	825-Clearings	-1,609,585	0	0	0	0	0	0	0	0	0	0	0	0	-1,609,585
	Clr Sum	-1,609,585	0	0	0	0	0	0	0	0	0	0	0	0	-1,609,585
Proj Net	-902,665	0	0	0	0	0	0	0	0	0	0	0	0	0	-902,665

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

Cost Year 01

Project	64830013	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	751		0	0	0	0	0	0	751		
	120-Overtime-General	91		0	0	0	0	0	0	91		
	350-Material Issues-Major	0		0	0	0	0	0	0	0		
	370-Outside Services	0		29,074	50,000	29,074	29,074	50,000	29,074	216,294		
	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	26,972		0	0	0	0	0	0	26,972		
	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	-543	-560	-1,662		
	426-Capitalized Interest	33,133		71	264	422	561	718	922	36,091		
	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	120		0	0	0	0	0	0	120		
	914-Pension and Benefits Load	371		0	0	0	0	0	0	371		
	915-Injuries and Damages Load	83		0	0	0	0	0	0	83		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	14,101		0	0	0	0	0	0	14,101		
	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	185,031		2,419	4,160	2,419	2,419	4,160	2,419	203,027		
	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	260,654		31,563	54,424	31,915	31,494	54,336	31,855	496,240		
	825-Clearings	-2,454,208		0	0	0	0	0	-235,586	-2,689,794		
	Clr Sum	-2,454,208		0	0	0	0	0	-235,586	-2,689,794		
Proj Net		-2,193,554		31,563	54,424	31,915	31,494	54,336	-203,731	-2,193,554		

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

Cost Year 02

Project	64830013	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	751	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,751
120-Overtime-General	91	0	0	0	0	0	0	0	0	0	0	0	0	91
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
370-Outside Services	216,294	0	0	100,000	0	0	100,000	0	0	0	0	0	100,000	516,294
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	26,972	0	0	0	0	0	0	0	0	0	0	0	0	26,972
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	-1,662	-16	-14	0	0	0	0	0	0	0	0	0	0	-1,692
426-Capitalized Interest	36,091	16	43	307	552	163	408	682	192	218	258	82	348	39,361
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	120	392	392	392	392	392	392	392	392	392	392	392	392	4,824
914-Pension and Benefits Load	371	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	16,745
915-Injuries and Damages Load	83	311	311	311	311	311	311	311	311	311	311	311	311	3,815
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	14,101	0	0	0	0	0	0	0	0	0	0	0	0	14,101
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	203,027	336	336	7,056	336	336	7,056	336	336	336	336	336	7,056	227,219
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	496,240	7,403	7,432	114,431	7,955	7,567	114,532	8,085	7,595	7,621	7,662	7,486	114,472	908,482
825-Clearings	-2,689,794	0	0	0	-102,916	0	0	-123,367	0	0	-48,000	0	-137,958	-3,102,036
Clr Sum	-2,689,794	0	0	0	-102,916	0	0	-123,367	0	0	-48,000	0	-137,958	-3,102,036
Proj Net	-2,193,554	7,403	7,432	114,431	-94,961	7,567	114,532	-115,282	7,595	7,621	-40,339	7,486	-23,486	-2,193,554

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

Cost Year 03

Project	64830013	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	60,751	0	0	0	0	0	0	0	0	0	0	0	0	60,751
120-Overtime-General	91	0	0	0	0	0	0	0	0	0	0	0	0	91
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
370-Outside Services	516,294	0	0	63,383	0	0	165,012	0	0	165,012	0	0	165,012	1,074,712
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	26,972	0	0	0	0	0	0	0	0	0	0	0	0	26,972
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	-1,692	0	0	0	0	0	0	0	0	0	0	0	0	-1,692
426-Capitalized Interest	39,361	0	0	147	287	69	381	724	174	475	807	196	516	43,136
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	4,824	0	0	0	0	0	0	0	0	0	0	0	0	4,824
914-Pension and Benefits Load	16,745	0	0	0	0	0	0	0	0	0	0	0	0	16,745
915-Injuries and Damages Load	3,815	0	0	0	0	0	0	0	0	0	0	0	0	3,815
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	14,101	0	0	0	0	0	0	0	0	0	0	0	0	14,101
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	227,219	0	0	4,259	0	0	11,089	0	0	11,089	0	0	11,089	264,745
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	908,482	0	0	67,790	287	69	176,482	724	174	176,575	807	196	176,617	1,508,201
825-Clearings	-3,102,036	0	0	0	-51,057	0	0	-145,720	0	0	-169,597	0	-175,009	-3,643,419
Clr Sum	-3,102,036	0	0	0	-51,057	0	0	-145,720	0	0	-169,597	0	-175,009	-3,643,419
Proj Net	-2,193,554	0	0	67,790	-50,771	69	176,482	-144,996	174	176,575	-168,790	196	1,608	-2,135,218

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and depend on each station. The total cost of this project was estimated after evaluating the immediate needs across the 5 compliance rated stations and other high profile sites, and will cover those initial improvements. All site will need architecture and design work as well as engineering design, but the required amount of construction varies from site to site. Future security improvements will fall under the 65007515 – NERC CIP Station Improvements project. The \$1.5 mil budgeted is based on estimates for the average sized station from previous work and the amount of work to be completed in the rate case time frame.

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

Cost Year 01

Project	65007514	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	65007514	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	65007514	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	240,000
370-Outside Services	0	0	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	50,000	50,000	50,000	900,000
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	392	392	392	392	392	392	392	392	392	392	392	392	4,704
914-Pension and Benefits Load	0	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	16,374
915-Injuries and Damages Load	0	311	311	311	311	311	311	311	311	311	311	311	311	3,732
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	1,430	17,160
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	736	2,096	3,456	3,456	3,456	3,456	3,456	3,456	3,456	2,096	2,096	2,096	33,315
926-A and G Loads	0	1,680	5,040	8,400	8,400	8,400	8,400	8,400	8,400	8,400	5,040	5,040	5,040	80,640
928-AFUDC Debt Reg	0	40	193	489	858	1,229	1,247	1,619	1,994	2,370	2,036	2,270	2,505	16,849
929-AFUDC - Equity Regular	0	36	174	441	773	1,107	1,124	1,460	1,797	2,137	1,835	2,046	2,258	15,188
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	30,990	86,000	141,283	141,985	142,690	142,724	143,433	144,145	144,861	89,505	89,949	90,396	1,387,962
825-Clearings	0	0	0	0	0	-135,737	0	0	0	-245,594	0	0	-754,973	-1,136,304
Clr Sum	0	0	0	0	0	-135,737	0	0	0	-245,594	0	0	-754,973	-1,136,304
Proj Net	0	30,990	86,000	141,283	141,985	6,953	142,724	143,433	144,145	-100,733	89,505	89,949	-664,577	251,658





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

Cost Year 01

Project	65007519	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	65007519	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	96,000
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	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	288,000
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	627	627	627	627	627	627	627	627	627	627	627	627	7,526
914-Pension and Benefits Load	0	2,183	2,183	2,183	2,183	2,183	2,183	2,183	2,183	2,183	2,183	2,183	2,183	26,198
915-Injuries and Damages Load	0	498	498	498	498	498	498	498	498	498	498	498	498	5,971
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	960	960	960	960	960	960	960	960	960	960	960	960	11,525
926-A and G Loads	0	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	25,805
928-AFUDC Debt Reg	0	50	151	252	353	456	558	203	304	406	509	612	716	4,570
929-AFUDC - Equity Regular	0	66	197	330	463	597	732	266	399	533	668	803	939	5,995
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	38,535	38,767	39,000	39,235	39,472	39,710	38,888	39,122	39,358	39,595	39,834	40,074	471,590
825-Clearings	0	0	0	0	0	0	-176,039	0	0	0	0	0	-295,552	-471,590
Clr Sum	0	0	0	0	0	0	-176,039	0	0	0	0	0	-295,552	-471,590
Proj Net	0	38,535	38,767	39,000	39,235	39,472	-136,329	38,888	39,122	39,358	39,595	39,834	-255,478	0

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

Cost Year 03

Project	65007519	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	96,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	192,000
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	288,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	576,000
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	7,526	627	627	627	627	627	627	627	627	627	627	627	627	15,053
914-Pension and Benefits Load	26,198	2,183	2,183	2,183	2,183	2,183	2,183	2,183	2,183	2,183	2,183	2,183	2,183	52,397
915-Injuries and Damages Load	5,971	498	498	498	498	498	498	498	498	498	498	498	498	11,942
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	11,525	960	960	960	960	960	960	960	960	960	960	960	960	23,049
926-A and G Loads	25,805	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	51,610
928-AFUDC Debt Reg	4,570	50	151	252	353	455	558	203	304	406	508	611	715	9,138
929-AFUDC - Equity Regular	5,995	45	136	227	319	411	503	183	274	366	458	551	644	10,112
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	471,590	38,514	38,705	38,898	39,091	39,285	39,480	38,805	38,997	39,191	39,386	39,581	39,778	941,300
825-Clearings	-471,590	0	0	0	0	0	-175,480	0	0	0	0	0	-294,230	-941,300
Clr Sum	-471,590	0	0	0	0	0	-175,480	0	0	0	0	0	-294,230	-941,300
Proj Net	0	38,514	38,705	38,898	39,091	39,285	-136,000	38,805	38,997	39,191	39,386	39,581	-254,453	0

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**Project No: 65007713    Transmission substation Grounding Repairs**

Company:        002-Transmission Services  
Location:        650 Transmission

Project Information

Construction Start Date                      4/4/2012                      Estimated Completion Date                      12/31/2021

List Interim In-Service Dates

Work at each affected station will be cleared to plant as work is completed.    Estimates 4 stations per year.

Project Need Justification

Unfortunately, occurrences of vandalism and metal theft continue to occur on PNM's transmission system. These events create unsafe operations and safety risks for PNM field employees and result in additional costs to inspect the assets for damage/theft, and perform the work to ensure it meets operational standards. This project is for funds to make repairs/replacements to the transmission system that were caused by vandalism/theft. The typical repairs are both time consuming and expensive, however, they must be performed quickly to eliminate any safety risks caused by the thefts.    Loss of the grounding system can result in failure of certain protective relays, damage equipment, and reduce PNM's ability to serve load.

Project Alternatives

Though PNM is in the process of running a pilot program to identify ways to better secure its transmission system assets, this program is not complete. In the meantime, PNM must address and repair any damage caused by vandalism/theft.

Technical Aspects

The typical repairs required for vandalism and metal theft include the replacement of metal downleads and repair/replacement of damaged equipment.    PNM utilizes multiple methods for hardening the grounding system, including the use of copper weld, covering downleads, or camouflaging downleads. Other mitigation may also be considered such as alarms or hardened fencing, gates, and locks.

Project Estimate Approach

Damage/theft at each switchyard is evaluated and used to determine potential mitigation actions.    The identified actions are then used to develop an estimated cost of materials and with that information the labor cost estimate was created to reflect the scope of the project.    Bids are then solicited from known utility contractors.    Historical pricing from prior projects is used to evaluate, and to the extent possible, improve pricing on current projects.

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

Cost Year 01

Project	65007713	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	28,321		2,000	2,000	2,000	2,000	2,000	2,000	40,321		
	120-Overtime-General	856		0	0	0	0	0	0	856		
	350-Material Issues-Major	0		5,000	5,000	5,000	5,000	5,000	5,000	30,000		
	370-Outside Services	1,206,076		5,000	7,000	5,000	5,000	5,000	5,000	1,238,076		
	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	-153	-153	-153	-459		
	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	986		157	157	157	157	157	157	1,930		
	914-Pension and Benefits Load	3,676		599	599	599	599	599	599	7,268		
	915-Injuries and Damages Load	943		130	130	130	130	130	130	1,725		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	7,253		181	181	181	181	181	181	8,339		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	79,994		1,031	1,191	1,031	1,031	1,031	1,031	86,340		
	926-A and G Loads	89,103		998	1,165	998	998	998	998	95,260		
	928-AFUDC Debt Reg	9,900		22	59	96	74	108	142	10,400		
	929-AFUDC - Equity Regular	13,920		24	64	104	80	116	153	14,461		
	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	1,441,028		15,143	17,546	15,297	15,097	15,168	15,239	1,534,517		
	825-Clearings	-1,443,468		0	0	-25,138	0	0	-52,981	-1,521,587		
	Clr Sum	-1,443,468		0	0	-25,138	0	0	-52,981	-1,521,587		
	Proj Net	-2,441		15,143	17,546	-9,841	15,097	15,168	-37,742	12,930		

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

Cost Year 02

Project	65007713	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	40,321	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	160,321
120-Overtime-General	856	0	0	0	0	0	0	0	0	0	0	0	0	856
350-Material Issues-Major	30,000	0	0	0	0	0	0	0	0	0	0	0	0	30,000
370-Outside Services	1,238,076	0	0	0	0	0	0	30,000	30,000	30,000	30,000	28,841	28,840	1,415,757
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	-459	-153	-153	0	0	0	0	0	0	0	0	0	0	-765
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	1,930	784	784	784	784	784	784	784	784	784	784	784	784	11,338
914-Pension and Benefits Load	7,268	2,729	2,729	2,729	2,729	2,729	2,729	2,729	2,729	2,729	2,729	2,729	2,729	40,016
915-Injuries and Damages Load	1,725	622	622	622	622	622	622	622	622	622	622	622	622	9,189
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	8,339	0	0	0	0	0	0	0	0	0	0	0	0	8,339
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	86,340	384	384	384	384	384	384	1,200	1,200	1,200	1,200	1,169	1,169	95,786
926-A and G Loads	95,260	672	672	672	672	672	672	2,688	2,688	2,688	2,688	2,610	2,610	115,264
928-AFUDC Debt Reg	10,400	66	105	145	103	143	183	165	291	418	304	429	554	13,306
929-AFUDC - Equity Regular	14,461	86	138	191	135	188	241	216	382	548	399	563	727	18,273
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	1,534,517	15,190	15,282	15,527	15,429	15,522	15,616	48,404	48,696	48,989	48,726	47,748	48,034	1,917,682
825-Clearings	-1,521,587	0	0	-31,830	0	0	-39,198	0	0	-92,644	0	0	-177,865	-1,863,124
Clr Sum	-1,521,587	0	0	-31,830	0	0	-39,198	0	0	-92,644	0	0	-177,865	-1,863,124
Proj Net	12,930	15,190	15,282	-16,303	15,429	15,522	-23,583	48,404	48,696	-43,655	48,726	47,748	-129,830	54,558

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

Cost Year 03

Project	65007713	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	160,321	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	184,321
120-Overtime-General	856	0	0	0	0	0	0	0	0	0	0	0	0	856
350-Material Issues-Major	30,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	90,000
370-Outside Services	1,415,757	5,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	1,695,757
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	-765	0	0	0	0	0	0	0	0	0	0	0	0	-765
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	11,338	157	157	157	157	157	157	157	157	157	157	157	157	13,220
914-Pension and Benefits Load	40,016	546	546	546	546	546	546	546	546	546	546	546	546	46,566
915-Injuries and Damages Load	9,189	124	124	124	124	124	124	124	124	124	124	124	124	10,682
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	8,339	358	358	358	358	358	358	358	358	358	358	358	358	12,629
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	95,786	349	893	893	893	893	893	893	893	893	893	893	893	105,957
926-A and G Loads	115,264	806	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	139,725
928-AFUDC Debt Reg	13,306	174	240	336	240	336	432	288	384	481	312	409	505	17,443
929-AFUDC - Equity Regular	18,273	156	217	303	216	303	389	260	346	433	282	368	455	22,002
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	1,917,682	14,670	36,685	36,867	36,684	36,866	37,049	36,775	36,958	37,142	36,822	37,005	37,188	2,338,394
825-Clearings	-1,863,124	0	0	-73,755	0	0	-92,177	0	0	-101,526	0	0	-212,541	-2,343,124
Clr Sum	-1,863,124	0	0	-73,755	0	0	-92,177	0	0	-101,526	0	0	-212,541	-2,343,124
Proj Net	54,558	14,670	36,685	-36,888	36,684	36,866	-55,128	36,775	36,958	-64,385	36,822	37,005	-175,353	-4,730



***Project No: 65007718 System Wide Relay Upgrades***

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date                      2/3/2016                      Estimated Completion Date                      10/31/2018

List Interim In-Service Dates

In-service dates and clearings will occur as soon as identified relays are replaced.    About one clearing per quarter.

Project Need Justification

This project is to replace aging electromechanical relays, solid state relays, and older microprocessor relays with new microprocessor relays to improve the reliability of PNMs electric grid. The electromechanical relays are at risk of poor performance, as shown by the extensive maintenance incurred. Also, the speed of operation is limited by the mechanical inertia of the moving components, which creates reliability issues. Other benefits of using microprocessor relays versus electromechanical relays are as follows:-performance (sensitivity and speed)-reliability (security, selectivity, and dependability)-availability-efficiency and economics-safety-compatibility

Project Alternatives

There are no other technical alternatives to this project. Inaction would result in loss of facilities and further delays in restoration.

Technical Aspects

Replace aging electromechanical relays, solid state relays, and older microprocessor relays with the new microprocessor relays to improve the reliability of PNM's electric grid.

Project Estimate Approach

This estimate was determined using standard design and test lab for compliance checks for hot standbys during emergency replacements. Also, vendors were contacted for material estimates. The total funding request is approximately \$4.3 million and is requested over the 4-year life of the project as follows: -2015 \$670,988-2016 \$1,052,644-2017 \$1,867,472-2018 \$748,183

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

Cost Year 01

Project	65007718	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	65007718	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	5,000	5,000	10,000	10,000	10,000	40,000	
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	17,500	25,000	25,000	25,000	92,500	
370-Outside Services	0	0	0	0	0	0	0	0	0	100,000	100,000	100,000	100,000	400,000	
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	392	392	784	784	784	3,136	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	1,365	1,365	2,729	2,729	2,729	10,916	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	311	311	622	622	622	2,488	
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	1,251	1,788	1,788	1,788	6,614	
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	192	3,388	3,784	3,784	3,784	14,934	
926-A and G Loads	0	0	0	0	0	0	0	0	336	8,232	9,072	9,072	9,072	35,784	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	10	199	580	984	1,391	3,164	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	13	261	760	1,291	1,824	4,150	
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	7,619	137,899	155,119	156,054	156,994	613,685	
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	7,619	137,899	155,119	156,054	156,994	613,685	

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

Cost Year 03

Project	65007718	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	40,000	3,000	3,000	10,000	10,000	10,000	5,000	5,000	10,000	10,000	10,000	0	0	116,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	92,500	0	0	43,500	50,000	50,000	50,000	50,000	0	0	0	0	0	336,000
370-Outside Services	400,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0	0	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	0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	3,136	235	235	784	784	784	392	392	784	784	784	0	0	9,094
914-Pension and Benefits Load	10,916	819	819	2,729	2,729	2,729	1,365	1,365	2,729	2,729	2,729	0	0	31,656
915-Injuries and Damages Load	2,488	187	187	622	622	622	311	311	622	622	622	0	0	7,215
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	6,614	0	0	3,110	3,575	3,575	3,575	3,575	0	0	0	0	0	24,024
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	14,934	2,835	2,835	4,288	4,464	4,464	4,272	4,272	3,104	384	384	0	0	46,239
926-A and G Loads	35,784	6,922	6,922	10,315	10,752	10,752	10,416	10,416	7,392	672	672	0	0	111,014
928-AFUDC Debt Reg	3,164	1,751	2,058	2,446	2,926	3,418	3,903	4,380	4,794	5,000	5,064	0	0	38,904
929-AFUDC - Equity Regular	4,150	1,579	1,855	2,205	2,638	3,081	3,518	3,948	4,321	4,507	4,565	0	0	36,367
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	613,685	117,328	117,910	179,999	188,490	189,426	182,752	183,659	133,746	24,699	24,821	0	0	1,956,515
825-Clearings	0	0	0	0	0	0	0	0	0	0	-1,956,515	0	0	-1,956,515
Clr Sum	0	0	0	0	0	0	0	0	0	0	-1,956,515	0	0	-1,956,515
Proj Net	613,685	117,328	117,910	179,999	188,490	189,426	182,752	183,659	133,746	24,699	-1,931,694	0	0	0

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**Project No: 65007814 College Substation Transmission**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 1/1/2014 Estimated Completion Date 8/31/2016

List Interim In-Service Dates  
NA

Project Need Justification

This project involves building a new transmission tap to connect the new college substation to the transmission system. The new substation is recommended due to existing and projected demand increases due to growth along the Highway 47 corridor and the Manzano Expressway. Though the Tome, Manzano, and El Cerro Substations are currently providing the distribution delivery capacity for this area, the new College Substation will provide needed backup capacity in the event of a failure of the substations. Currently a Manzano Substation outage during peak load periods would overload the adjacent area El Cerro and Tome Substation transformers by over 180 hours per year. This project will greatly simplify operation of the system, by eliminating several supplemental cascading load transfers presently utilized, minimize outage restoration times, and allow distribution operations more certainty that adjacent facilities, required to accomplish the proposed restoration, will be available when needed.

Project Alternatives

All substation location alternatives considered will connect to the 115 kV AT transmission line. Two location alternatives were considered: The first was to install a second unit transformer at the existing Manzano Substation. A Manzano Unit II option could be used to provide backup support for Manzano Unit I and Tome Substation. However, due to the length of the feeders from Tome Substation to the existing Manzano Substation, voltage levels will remain on the lower side of the acceptable voltage range for contingency situations. Any additional load growth would require additional distribution feeder voltage support improvements. This option would also only allow two new feeders from a second unit at Manzano Substation that could be effectively used at this time to unload Manzano Feeder 11 and 13 and to provide backup support to the area. The second alternative considered was to install a second unit transformer at the existing El Cerro Substation. An El Cerro Unit II option could be used to provide backup support for El Cerro Unit I and Manzano. The proposed feeders brought out of the substation would not help resolve the issues associated with Tome Substation outages to the south which is a less efficient use of the new transformer capacity in comparison to the preferred alternative. This location does not alleviate the long length of the feeders between Tome Substation and Manzano substation, so voltage levels will initially be on the lower side of the acceptable voltage range for contingency situations. Any additional load growth would require additional distribution feeder voltage support improvements. Again, this alternative has only two feeders that could be effectively used to unload El Cerro 12 and Manzano 11 and to provide backup support to the area.

#### Technical Aspects

Provide transmission service to the new College Substation from the 115 kV AT line, which is adjacent and runs parallel to the west side of the College Substation site. This includes the installation of two transmission structures to route existing transmission into the new substation; and a 115kV sectionalizing breaker with it's associated control enclosure to help sectionalize the transmission line in case of a transmission fault.

#### Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment like transmission structures we contacted our alliance vendor (Trinity Meyer) and requested information regarding the costs and schedules of these major items. Labor and contractor estimates were created from past projects that are similar in nature, for this project past unit substations Snow Vista and Scenic) were referenced. All overhead costs are standard and calculated using the approved corporate software. Internal labor accounts for 8%, material accounts for 45%, contract services accounts for 22%, and overhead costs account for 25% of the total cost.

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

Cost Year 01

Project	65007814	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	92,912		5,000	0	0	0	0	0	97,912		
	120-Overtime-General	6,003		0	0	0	0	0	0	6,003		
	350-Material Issues-Major	17,072		0	0	0	0	0	0	17,072		
	370-Outside Services	410,216		150,000	0	0	0	0	0	560,216		
	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	802		0	0	0	0	0	0	802		
	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	8,631		394	0	0	0	0	0	9,024		
	914-Pension and Benefits Load	32,040		1,497	0	0	0	0	0	33,537		
	915-Injuries and Damages Load	7,460		326	0	0	0	0	0	7,786		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	3,915		0	0	0	0	0	0	3,915		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	35,106		12,577	0	0	0	0	0	47,683		
	926-A and G Loads	60,078		12,896	0	0	0	0	0	72,974		
	928-AFUDC Debt Reg	31,925		2,354	0	0	0	0	0	34,279		
	929-AFUDC - Equity Regular	33,851		2,550	0	0	0	0	0	36,401		
	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	740,011		187,594	0	0	0	0	0	927,605		
	825-Clearings	0		-1,140,711	0	0	0	0	0	-1,140,711		
	Clr Sum	0		-1,140,711	0	0	0	0	0	-1,140,711		
Proj Net		740,011		-953,118	0	0	0	0	0	-213,107		

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

Cost Year 02

Project	65007814	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	97,912	0	0	0	0	0	0	0	0	0	0	0	0	97,912
	120-Overtime-General	6,003	0	0	0	0	0	0	0	0	0	0	0	0	6,003
	350-Material Issues-Major	17,072	0	0	0	0	0	0	0	0	0	0	0	0	17,072
	370-Outside Services	560,216	0	0	0	0	0	0	0	0	0	0	0	0	560,216
	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	802	0	0	0	0	0	0	0	0	0	0	0	0	802
	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	9,024	0	0	0	0	0	0	0	0	0	0	0	0	9,024
	914-Pension and Benefits Load	33,537	0	0	0	0	0	0	0	0	0	0	0	0	33,537
	915-Injuries and Damages Load	7,786	0	0	0	0	0	0	0	0	0	0	0	0	7,786
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	3,915	0	0	0	0	0	0	0	0	0	0	0	0	3,915
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	47,683	0	0	0	0	0	0	0	0	0	0	0	0	47,683
	926-A and G Loads	72,974	0	0	0	0	0	0	0	0	0	0	0	0	72,974
	928-AFUDC Debt Reg	34,279	0	0	0	0	0	0	0	0	0	0	0	0	34,279
	929-AFUDC - Equity Regular	36,401	0	0	0	0	0	0	0	0	0	0	0	0	36,401
	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	927,605	0	0	0	0	0	0	0	0	0	0	0	0	927,605
	825-Clearings	-1,140,711	0	0	0	0	0	0	0	0	0	0	0	0	-1,140,711
	Clr Sum	-1,140,711	0	0	0	0	0	0	0	0	0	0	0	0	-1,140,711
	Proj Net	-213,107	0	0	0	0	0	0	0	0	0	0	0	0	-213,107

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

Cost Year 03

Project	65007814	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	97,912	0	0	0	0	0	0	0	0	0	0	0	0	97,912	
120-Overtime-General	6,003	0	0	0	0	0	0	0	0	0	0	0	0	6,003	
350-Material Issues-Major	17,072	0	0	0	0	0	0	0	0	0	0	0	0	17,072	
370-Outside Services	560,216	0	0	0	0	0	0	0	0	0	0	0	0	560,216	
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	802	0	0	0	0	0	0	0	0	0	0	0	0	802	
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	9,024	0	0	0	0	0	0	0	0	0	0	0	0	9,024	
914-Pension and Benefits Load	33,537	0	0	0	0	0	0	0	0	0	0	0	0	33,537	
915-Injuries and Damages Load	7,786	0	0	0	0	0	0	0	0	0	0	0	0	7,786	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	3,915	0	0	0	0	0	0	0	0	0	0	0	0	3,915	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	47,683	0	0	0	0	0	0	0	0	0	0	0	0	47,683	
926-A and G Loads	72,974	0	0	0	0	0	0	0	0	0	0	0	0	72,974	
928-AFUDC Debt Reg	34,279	0	0	0	0	0	0	0	0	0	0	0	0	34,279	
929-AFUDC - Equity Regular	36,401	0	0	0	0	0	0	0	0	0	0	0	0	36,401	
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	927,605	0	0	0	0	0	0	0	0	0	0	0	0	927,605	
825-Clearings	-1,140,711	0	0	0	0	0	0	0	0	0	0	0	0	-1,140,711	
Clr Sum	-1,140,711	0	0	0	0	0	0	0	0	0	0	0	0	-1,140,711	
Proj Net	-213,107	0	0	0	0	0	0	0	0	0	0	0	0	-213,107	

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**Project No: 65007817 FW WW Structure Replacement**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

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

List Interim In-Service Dates

Project Need Justification

The FW and WW 345kv lines were constructed in the mid-1960's, and the wood structures are approaching the end of their service life. Tangent (K-Frame) structures are approximately 85-90% of the total structures, with various angles and dead-end structures making up the remainder. Direct replacement of the wood tangents with direct embedded tubular steel H-Frame structures will extend the lines' life, improve reliability and reduce maintenance costs. The steel structures are designed to be installed while the line remains in-service.

Project Alternatives

The only other alternative is to continue the one-by-one replacement of wood framing members as they fail. This method will allow failure rates to continue to increase as the system ages, bringing an increased risk of major structural failure and line outages.

Technical Aspects

Structures are designed for direct replacement using energized line working techniques. A common top section length will be used and range of various bottom sections will be used. Insulators and structure grounding will be replaced at each new installation, which will improve the overall line performance and reduce future maintenance issues.

Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. Alliance pricing from our transmission structure provider was used with assumed weights based on previous structure designs. Labor and contractor estimates were created from past projects that are similar in nature. All overhead costs are standard and calculated using the approved corporate software. For this project, in-house labor is estimated at 10% of base costs (unloaded costs). This includes on-site work as well as some engineering design. Materials are estimated at 45%. Construction services are 45% with work performed by qualified utility contractors.

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

Cost Year 01

Project	65007817	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	65007817	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	36,000
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	3,031,000	0	0	0	0	0	3,031,000
370-Outside Services	0	0	0	0	0	0	0	80,000	264,000	551,000	559,000	267,000	265,000	1,986,000
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	235	235	235	235	235	235	235	235	235	235	235	235	2,822
914-Pension and Benefits Load	0	819	819	819	819	819	819	819	819	819	819	819	819	9,824
915-Injuries and Damages Load	0	187	187	187	187	187	187	187	187	187	187	187	187	2,239
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	216,717	0	0	0	0	0	216,717
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	115	115	115	115	115	115	84,735	7,296	15,103	15,320	7,378	7,323	137,846
926-A and G Loads	0	202	202	202	202	202	202	209,261	17,942	37,229	37,766	18,144	18,010	339,562
928-AFUDC Debt Reg	0	6	18	30	42	54	66	4,798	9,936	11,170	7,660	8,896	9,720	52,396
929-AFUDC - Equity Regular	0	8	23	39	55	71	87	6,294	13,032	14,651	10,047	11,669	12,750	68,726
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	4,571	4,599	4,626	4,654	4,682	4,711	3,637,045	316,447	633,393	634,034	317,327	317,044	5,883,132
825-Clearings	0	0	0	0	0	0	0	0	0	-1,984,333	0	0	-2,729,160	-4,713,493
Clr Sum	0	0	0	0	0	0	0	0	0	-1,984,333	0	0	-2,729,160	-4,713,493
Proj Net	0	4,571	4,599	4,626	4,654	4,682	4,711	3,637,045	316,447	-1,350,940	634,034	317,327	-2,412,116	1,169,640

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

Cost Year 03

Project	65007817	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	36,000	3,000	3,000	3,000	0	0	0	0	0	0	0	0	0	45,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	3,031,000	0	0	0	0	0	0	0	0	0	0	0	0	3,031,000
	370-Outside Services	1,986,000	277,500	275,000	185,000	0	0	0	0	0	0	0	0	0	2,723,500
	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	2,822	235	235	235	0	0	0	0	0	0	0	0	0	3,528
	914-Pension and Benefits Load	9,824	819	819	819	0	0	0	0	0	0	0	0	0	12,281
	915-Injuries and Damages Load	2,239	187	187	187	0	0	0	0	0	0	0	0	0	2,799
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	216,717	0	0	0	0	0	0	0	0	0	0	0	0	216,717
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	137,846	7,663	7,595	5,147	0	0	0	0	0	0	0	0	0	158,253
	926-A and G Loads	339,562	18,850	18,682	12,634	0	0	0	0	0	0	0	0	0	389,726
	928-AFUDC Debt Reg	52,396	3,457	4,276	4,966	0	0	0	0	0	0	0	0	0	65,095
	929-AFUDC - Equity Regular	68,726	3,116	3,854	4,477	0	0	0	0	0	0	0	0	0	80,173
	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	5,883,132	314,827	313,647	216,464	0	0	0	0	0	0	0	0	0	6,728,071
	825-Clearings	-4,713,493	0	0	-2,014,578	0	0	0	0	0	0	0	0	0	-6,728,071
	Clr Sum	-4,713,493	0	0	-2,014,578	0	0	0	0	0	0	0	0	0	-6,728,071
	Proj Net	1,169,640	314,827	313,647	-1,798,114	0	0	0	0	0	0	0	0	0	0

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**Project No: 65008014 TWS Upgrade \$893,422 (\$69,452) \$893,422**

Company: 002-Transmission Services

Location: 650 Transmission

#### Project Information

Construction Start Date 2/17/2016

Estimated Completion Date 9/30/2016

List Interim In-Service Dates

Project Need Justification

TWS is the Traveling Wave Fault Recording System. When a fault occurs on a transmission line, the TWS calculates the line distance from the switchyard to the area of the fault. The location provided by TWS is typically accurate within 1 or 2 structures. Given the accuracy of the data provided by TWS, Power Operations is better able to direct its repair crews to the approximate location rather than having them drive the entire span of the line searching for possible outages/loss of service on the circuit. The TWS currently used by PNM is an early generation product and has proven difficult to maintain resulting in lack of availability on a regular basis. Furthermore, when there are several faults or locations that are out-of-service, the device is not able to handle the information and often times fails, which requires additional maintenance. The purpose of this project is to install new TWS devices along PNM's transmission lines. The new devices will be more reliable than the current devices. Furthermore, if outages are not detected and repaired in a timely manner, they can extend further which impacts overall system reliability.

Project Alternatives

Two alternatives have been identified for the recommended approach 1) Do-nothing and try to keep as much of the existing TWS operational as possible. This is not a desirable alternative as it would require repair crews to travel to a broader range of locations before pinpointing the issue which will result in longer outage periods. 2) Another alternative is to use relay targets to pinpoint faults. The use of relay targets is challenging as some manipulation of data is required to develop an estimate line distance to the fault. Additionally this information is sometimes only available at the station control house, requiring an on-site visit. Making on-site visits to retrieve data takes a lot of time when restoration of service may be critical. Replacement of the existing TWS with a newer version is the recommended approach.

Technical Aspects

PNM is working with vendors to determine if the next generation product mitigates most of the maintenance issues. The installation will involve removal of the existing devices and then installation of the newer devices at control houses. It is expected that the 345kV system would be updated first followed by lower voltage stations.

Project Estimate Approach

The estimate for this project was developed by using estimates from vendors of the most updated TWS version available that is also compatible with our system. The estimate for the installation was developed by referencing the average cost per installation from past projects and adding funds for the removal/retirement of the existing equipment.

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

Cost Year 01

Project	65008014	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	19,619		2,000	2,000	0	0	0	0	23,619		
	120-Overtime-General	1,308		0	0	0	0	0	0	1,308		
	350-Material Issues-Major	0		0	0	0	0	0	0	0		
	370-Outside Services	6,468		0	0	0	17,315	17,333	17,333	58,450		
	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	276		0	0	0	0	0	0	276		
	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	1,885		157	157	0	0	0	0	2,200		
	914-Pension and Benefits Load	7,156		599	599	0	0	0	0	8,353		
	915-Injuries and Damages Load	1,565		130	130	0	0	0	0	1,826		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	3,962		0	0	0	0	0	0	3,962		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	82,538		231	231	0	1,385	1,387	1,387	87,159		
	926-A and G Loads	57,898		166	166	0	1,441	1,442	1,442	62,556		
	928-AFUDC Debt Reg	12,690		1,975	1,991	2,004	23	68	114	18,865		
	929-AFUDC - Equity Regular	7,615		2,138	2,157	2,171	25	74	123	14,303		
	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	202,980		7,397	7,432	4,175	20,188	20,304	20,400	282,876		
	825-Clearings	0		0	0	-893,422	0	0	0	-893,422		
	Clr Sum	0		0	0	-893,422	0	0	0	-893,422		
Proj Net		202,980		7,397	7,432	-889,247	20,188	20,304	20,400	-610,546		

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

Cost Year 02

Project	65008014	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	23,619	0	0	0	0	0	0	0	0	0	0	0	0	23,619
	120-Overtime-General	1,308	0	0	0	0	0	0	0	0	0	0	0	0	1,308
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	58,450	0	0	0	0	0	0	0	0	0	0	0	0	58,450
	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	276	0	0	0	0	0	0	0	0	0	0	0	0	276
	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	2,200	0	0	0	0	0	0	0	0	0	0	0	0	2,200
	914-Pension and Benefits Load	8,353	0	0	0	0	0	0	0	0	0	0	0	0	8,353
	915-Injuries and Damages Load	1,826	0	0	0	0	0	0	0	0	0	0	0	0	1,826
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	3,962	0	0	0	0	0	0	0	0	0	0	0	0	3,962
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	87,159	0	0	0	0	0	0	0	0	0	0	0	0	87,159
	926-A and G Loads	62,556	0	0	0	0	0	0	0	0	0	0	0	0	62,556
	928-AFUDC Debt Reg	18,865	159	160	161	162	163	164	165	166	167	168	169	170	20,834
	929-AFUDC - Equity Regular	14,303	208	209	211	212	213	215	216	217	218	220	221	222	16,886
	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	282,876	367	369	371	374	376	378	380	383	385	387	390	392	287,428
	825-Clearings	-893,422	0	0	0	0	0	0	0	0	0	0	0	0	-893,422
	Clr Sum	-893,422	0	0	0	0	0	0	0	0	0	0	0	0	-893,422
	Proj Net	-610,546	367	369	371	374	376	378	380	383	385	387	390	392	-605,994

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

Cost Year 03

Project	65008014	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	23,619	0	0	0	0	0	0	0	0	0	0	0	0	23,619
	120-Overtime-General	1,308	0	0	0	0	0	0	0	0	0	0	0	0	1,308
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	58,450	0	0	0	0	0	0	0	0	0	0	0	0	58,450
	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	276	0	0	0	0	0	0	0	0	0	0	0	0	276
	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	2,200	0	0	0	0	0	0	0	0	0	0	0	0	2,200
	914-Pension and Benefits Load	8,353	0	0	0	0	0	0	0	0	0	0	0	0	8,353
	915-Injuries and Damages Load	1,826	0	0	0	0	0	0	0	0	0	0	0	0	1,826
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	3,962	0	0	0	0	0	0	0	0	0	0	0	0	3,962
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	87,159	0	0	0	0	0	0	0	0	0	0	0	0	87,159
	926-A and G Loads	62,556	0	0	0	0	0	0	0	0	0	0	0	0	62,556
	928-AFUDC Debt Reg	20,834	171	172	173	173	174	175	176	177	178	179	180	180	22,942
	929-AFUDC - Equity Regular	16,886	154	155	156	156	157	158	159	159	160	161	162	163	18,786
	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	287,428	325	327	328	330	331	333	335	336	338	340	341	343	291,436
	825-Clearings	-893,422	0	0	0	0	0	0	0	0	0	0	0	0	-893,422
	Clr Sum	-893,422	0	0	0	0	0	0	0	0	0	0	0	0	-893,422
	Proj Net	-605,994	325	327	328	330	331	333	335	336	338	340	341	343	-601,986

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**Project No: 65008017 Blackwater 345kV Breaker**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date                      6/1/2016                      Estimated Completion Date                      8/31/2017

List Interim In-Service Dates

Project Need Justification

The purpose of this Project is to replace the existing Blackwater Station 345kV breaker ("TB Line Breaker 44982") with a new breaker. The TB Line Breaker 44982 was installed in 1984 and is the only 345kV breaker installed at the station. Replacement will be completed in coordination with installation of interconnection facilities associated with project - 65008815 which is described in PNM's Annual Operating Plan (AOP) capital budget as Tres Amigas Interconnection ("Associated Project"). Tres Amigas facilities are necessary to interconnect a new 345 kV transmission line ("Tres Amigas 345 kV Transmission Line") from the proposed Tres Amigas Station to Blackwater Station but costs for the Associated Project do not include replacement of Blackwater Breaker # 44982 since the replacement is considered a PNM expense.

Project Alternatives

The alternative of continued use of the existing breaker (i.e. not replacing) would not be cost effective and was therefore not considered. Given the age of the existing breaker, the proposed plan to replace it and the construction and installation of the network upgrades is the most cost effective approach. Not replacing this breaker at the same time the new equipment is installed for the interconnection would result in higher maintenance costs for this breaker than the rest of the station. It also would result in higher risk of additional outages and installation costs for its replacement at a later date.

Technical Aspects

PNM will complete certain "Network Upgrades" at Blackwater Station as part of the Associated Project to interconnect the Tres Amigas 345 kV transmission line. The Associated Project Capital Development Approval Process (CDAP) described in the project scope, the installation of three new 345 kV breakers in a three breaker ring configuration; two of the breakers described are driven by the interconnection project. Breaker #44982 is 31 years old making spare parts difficult to acquire or in some cases no longer available. PNM has electing to replace the Blackwater Breaker #44982 in coordination with the Associated Project to take advantage of resources that will be on site as part of the Associated Project construction and installation of facilities needed to complete the interconnection of the Tres Amigas 345 kV transmission line.

Project Estimate Approach

This project was estimated based on the standard procedure used by System Engineering. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment (i.e.. breakers) PNM contacted an alliance vendor (HVB) and requested information regarding the costs and schedules of these major items. Labor and contractor estimates were created from past projects that are similar in nature. All overhead costs are standard and calculated using the approved corporate software.

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

Cost Year 01

Project	65008017	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	1,401		0	0	0	0	0	0	1,401		
	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	281,073		0	0	0	0	0	0	281,073		
	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	126		0	0	0	0	0	0	126		
	914-Pension and Benefits Load	475		0	0	0	0	0	0	475		
	915-Injuries and Damages Load	106		0	0	0	0	0	0	106		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	1,743		0	0	0	0	0	0	1,743		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	11,984		0	0	0	0	0	0	11,984		
	926-A and G Loads	23,520		0	0	0	0	0	0	23,520		
	928-AFUDC Debt Reg	5,141		746	750	753	757	760	764	9,672		
	929-AFUDC - Equity Regular	3,324		808	812	816	820	824	827	8,231		
	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	328,893		1,555	1,562	1,569	1,577	1,584	1,591	338,331		
	825-Clearings	0		0	0	0	0	0	0	0		
	Clr Sum	0		0	0	0	0	0	0	0		
Proj Net		328,893		1,555	1,562	1,569	1,577	1,584	1,591	338,331		

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

Cost Year 02

Project	65008017	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	1,401	2,320	1,118	1,949	2,798	3,837	3,494	6,640	4,060	0	0	0	0	27,617
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	337	0	0	139,244	40,572	52,580	46,387	33,874	0	0	0	0	312,994
370-Outside Services	281,073	0	10,619	6,879	19,163	5,215	2,196	4,323	22,869	0	0	0	0	352,337
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	126	182	88	153	219	301	274	521	318	0	0	0	0	2,182
914-Pension and Benefits Load	475	633	305	532	764	1,047	954	1,812	1,108	0	0	0	0	7,630
915-Injuries and Damages Load	106	144	70	121	174	239	217	413	253	0	0	0	0	1,737
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	1,743	24	0	0	9,956	2,901	3,759	3,317	2,422	0	0	0	0	24,122
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	11,984	98	332	262	4,416	1,393	1,624	1,635	1,700	0	0	0	0	23,444
926-A and G Loads	23,520	179	789	593	10,833	3,335	3,916	3,854	4,086	0	0	0	0	51,104
928-AFUDC Debt Reg	9,672	893	921	957	1,221	1,550	1,726	1,916	2,109	0	0	0	0	20,964
929-AFUDC - Equity Regular	8,231	1,171	1,208	1,256	1,602	2,033	2,263	2,513	2,767	0	0	0	0	23,043
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	338,331	5,981	15,448	12,702	190,390	62,422	73,003	73,330	75,565	0	0	0	0	847,172
825-Clearings	0	0	0	0	0	0	0	0	-849,411	0	0	0	0	-849,411
Clr Sum	0	0	0	0	0	0	0	0	-849,411	0	0	0	0	-849,411
Proj Net	338,331	5,981	15,448	12,702	190,390	62,422	73,003	73,330	-773,846	0	0	0	0	-2,239

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

Cost Year 03

Project	65008017	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	27,617	0	0	0	0	0	0	0	0	0	0	0	0	27,617
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	312,994	0	0	0	0	0	0	0	0	0	0	0	0	312,994
	370-Outside Services	352,337	0	0	0	0	0	0	0	0	0	0	0	0	352,337
	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	2,182	0	0	0	0	0	0	0	0	0	0	0	0	2,182
	914-Pension and Benefits Load	7,630	0	0	0	0	0	0	0	0	0	0	0	0	7,630
	915-Injuries and Damages Load	1,737	0	0	0	0	0	0	0	0	0	0	0	0	1,737
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	24,122	0	0	0	0	0	0	0	0	0	0	0	0	24,122
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	23,444	0	0	0	0	0	0	0	0	0	0	0	0	23,444
	926-A and G Loads	51,104	0	0	0	0	0	0	0	0	0	0	0	0	51,104
	928-AFUDC Debt Reg	20,964	0	0	0	0	0	0	0	0	0	0	0	0	20,964
	929-AFUDC - Equity Regular	23,043	0	0	0	0	0	0	0	0	0	0	0	0	23,043
	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	847,172	0	0	0	0	0	0	0	0	0	0	0	0	847,172
	825-Clearings	-849,411	0	0	0	0	0	0	0	0	0	0	0	0	-849,411
	Clr Sum	-849,411	0	0	0	0	0	0	0	0	0	0	0	0	-849,411
	Proj Net	-2,239	0	0	0	0	0	0	0	0	0	0	0	0	-2,239

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**Project No: 65008117 NERC Physical Security**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

<u>Construction Start Date</u>	3/1/2018	<u>Estimated Completion Date</u>	12/31/2020
<u>List Interim In-Service Dates</u>	NA		

Project Need Justification

The North American Electric Reliability Corporation (NERC) has issued updated requirements for NERC CIP-014 (Critical Infrastructure Protection). This addresses the physical security of transmission stations and substations, and their associated primary control centers. If these facilities are rendered inoperable or damaged as a result of a physical attack, the result could be widespread system instability, uncontrolled separation, or further cascading effects within an interconnection. The main objective is to implement the CIP-014-1 standard in a manner that deters, detects, delays, defends and responds to potential threats in order to prevent or significantly lower the damage that may be caused by an attack. Examples of improvements include increased physical and cyber access identification standards, enhanced physical barriers, increased alarms and cameras for remote observation, firewalls, and other related improvements. The timing to meet these requirements falls within the rate case future year. The compliance issues that are the subject of this project are related to CIP 14 (Station Security), CIP 6 (Physical Access), CIP-005 (Electronic Security Perimeter), and CIP-007 (Systems Security Management). This funding will also support anticipated PNM Stations coming into scope to ensure PNM meets compliance obligations in the future. PNM will be proactive to enforce security controls per the standard to mitigate operational risks as well. CIP-014-1 will be performed in conjunction with all other applicable CIP standards; including CIP-006-6 and CIP-011-2. It is recognized that some CIP-014-01 requirements must be performed in tandem with other CIP requirements. This project is focused on physical protection of critical infrastructure and will be coordinated with other ongoing efforts.

Project Alternatives

Inaction is not a alternative because NERC compliance obligations must be met. Each station will be evaluated on a case-by-case basis. Those standards that are applicable and provide best protection for the specific site are chosen for implementation. PNM does evaluate the limited choice of vendors and in some cases the range of available solutions for implementation. Much of the work must be outsourced (which is a significant portion of costs) as result of needed specialty skills and the amount of resources required needed to meet compliance deadlines, programming, write compliance procedures, and integrate. Through the CIP-002 BES (Bulk Electric System) identification, stations (or equipment in a station) were identified by Corporate Compliance, New Mexico Operations, and the Operations Technology (OT) group. Lack of meeting NERC requirements can result in significant penalties which far exceed the cost of the improvements.

#### Technical Aspects

Work will involve the installation of a commercially available system custom designed to include features such as employee identification, multiple password protection, data security and validation, support of existing protective equipment, and alarms if a malfunction or error should occur. Additional equipment to be installed includes servers, firewalls, hardware, and software at control centers and key substations. Vendors will provide the product and perform installation including functionality testing.

#### Project Estimate Approach

Key project requirements were developed with the combination of OT and New Mexico Operation's NERC-CIP Department. Utilizing the new Substation Architecture implemented in related projects, this will be a scalable solution and would require minimal support. Estimates are based on each stations characteristics which are determined with preliminary assessments to support the already secured competitive proposals used in previous projects. These include vendor product and installation as well as in-house support.

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

Cost Year 01

Project	65008117	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	65008117	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	65008117	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	2,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,000	34,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	6,500	168,500
370-Outside Services	0	0	0	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	0	630,000
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	157	235	235	235	235	235	235	235	235	235	235	157	2,666
914-Pension and Benefits Load	0	546	819	819	819	819	819	819	819	819	819	819	546	9,279
915-Injuries and Damages Load	0	124	187	187	187	187	187	187	187	187	187	187	124	2,115
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	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	1,287	465	12,048
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	77	115	2,509	2,509	2,509	2,509	2,509	2,509	2,509	2,509	2,509	254	23,026
926-A and G Loads	0	134	202	6,115	6,115	6,115	6,115	6,115	6,115	6,115	6,115	6,115	571	55,944
928-AFUDC Debt Reg	0	4	14	153	277	545	815	609	879	1,150	778	1,049	1,201	7,476
929-AFUDC - Equity Regular	0	4	13	138	250	492	734	549	793	1,037	701	945	1,083	6,739
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	3,046	4,584	102,443	102,679	103,188	103,701	103,311	103,824	104,339	103,631	104,146	12,901	951,791
825-Clearings	0	0	0	-55,036	0	0	-182,302	0	0	-246,888	0	0	-350,674	-834,900
Clr Sum	0	0	0	-55,036	0	0	-182,302	0	0	-246,888	0	0	-350,674	-834,900
Proj Net	0	3,046	4,584	47,407	102,679	103,188	-78,601	103,311	103,824	-142,549	103,631	104,146	-337,773	116,891

**Project No: 65008216 LOW Station Implementation**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 9/1/2016 Estimated Completion Date 12/31/2018

List Interim In-Service Dates

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Project Need Justification

The purpose of this project is to implement cyber and physical controls at various low-impact stations in the PNM system to meet North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) compliance requirements. The CIP standards introduce a tiered impact rating system, which classifies Bulk Electric Systems (BES) Cyber Systems into high, medium and low categories. LOW Impact BES Cyber Systems (LIBCS) are defined as those BES Cyber Systems that do not meet the high or medium impact criteria. To ensure compliance with NERC-CIP, the controls affected by this project must be completed and commissioned by 3 or more months prior to the following dates:1. Completion date for identified stations: Policy, Plan, Incidence Response & Security Awareness – April 1, 2017 2. Electronic Security and Physical Security – September 1, 2018Compliance requires that security policies are developed and controls implemented to address four specific areas: • Cyber Security Awareness • Cyber Security Incident Response • Physical Security Controls • Electronic Access Controls Other or additional physical and cyber controls will be considered based on operational value and the risk level identified during the assessment phase of the approximately 60 LIBCS stations. The security controls to be implemented at the LOW Impact stations have been tested and installed at medium impact stations (West Mesa, Rio Puerco, BA, San Juan, and Luna) and at the Test Lab.The first phase (assessments) supports the initial design at each station to determine which security controls will be required, such as badge readers, physical hardening measures, and remote access technology for cyber security controls.

Project Alternatives

“No action” is not a responsive alternative based on the NERC compliance obligations that must be met.Each station will be evaluated on a case-by-case basis. Standards that are applicable and provide best protection for the specific site are chosen for implementation. Also, PNM evaluates the limited choice of vendors and in some cases the range of available solutions for implementation (which is dependent on station). Much of the work must be outsourced (which is a significant portion of costs) as result of needed specialty skills and the amount of resources required to meet compliance deadlines, programming, write compliance procedures, and integration.Through the CIP -002 BES (Bulk Electric System) identification, stations (or equipment in a station) were identified by Corporate Compliance, New Mexico Operations, and Operations Technology group. Lack of meeting NERC requirements can result in significant penalties which far exceed the project's costs.

#### Technical Aspects

Per CIP-003 a LOW Electronic Access Point (LEAP) will be installed where applicable (for example, a firewall) at each Low Impact station. All phases (assessment, design, approval, and implementation) of project will be coordinated with NM Operations, Corporate Security, and Operations Technology (OT). All equipment/software utilized in the project will adhere to EASB (welding and cutting equipment manufacturer) and PNM standards for substation architecture and its supported applications. All equipment planned to be utilized has existing EASB approval. Physical and cyber controls applied will be the same approved technology and architecture implemented during the 2014-2015 CIP V5 Implementation efforts such as badge readers, physical hardening measures, and remote access technology for cyber security controls.

#### Project Estimate Approach

NERC CIP-003 standards require physical and electronic controls in all LOW impact stations. A comprehensive list of each LIBCS station (61) and protection schemes are available in the LIBCS (Low Impact BCS) CIP protected SharePoint folder. Each low impact station must undergo strict compliance requirements; therefore PNM is required to implement Physical Security and Electronic Access Controls at each identified station. After completing each station's cyber and physical assessment, a project team will identify the physical and cyber controls necessary to meet compliance. In addition to these controls, secure substation remote access technology will be implemented where necessary. This technology aids in meeting compliance as well as adding value to New Mexico Operations Engineering, Protection & Control, Relay, and Communications Departments. This project will use the same solutions and take into account lessons learned from the previous related projects. (Remote Access for Medium Impact Stations - 6428113, Test Lab Implementation - 10034115, and Station Security Pilot Project - 64807013).

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

Cost Year 01

Project	65008216	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	9,218		12,000	15,000	15,000	15,000	15,000	15,000	96,218		
	120-Overtime-General	0		0	0	0	0	0	0	0		
	350-Material Issues-Major	0		17,500	17,500	17,500	17,500	17,500	0	87,500		
	370-Outside Services	0		0	150,000	175,000	100,000	200,000	75,000	700,000		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	28,524		12,000	12,000	12,000	12,000	12,000	12,000	100,524		
	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	-2,540	-2,540	-2,540	-7,621		
	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	839		944	1,181	1,181	1,181	1,181	1,181	7,686		
	914-Pension and Benefits Load	3,192		3,593	4,491	4,491	4,491	4,491	4,491	29,239		
	915-Injuries and Damages Load	695		782	978	978	978	978	978	6,367		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	177		634	634	634	634	634	0	3,344		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	2,728		3,746	16,092	18,092	12,092	20,092	8,692	81,533		
	926-A and G Loads	3,260		3,453	16,182	18,262	12,022	20,342	8,486	82,009		
	928-AFUDC Debt Reg	244		175	501	1,064	1,220	1,747	2,221	7,172		
	929-AFUDC - Equity Regular	119		190	543	1,152	1,321	1,892	2,405	7,623		
	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	48,995		55,017	235,102	265,354	175,897	293,316	127,913	1,201,594		
	825-Clearings	0		0	0	-151,477	0	0	-841,247	-992,725		
	Clr Sum	0		0	0	-151,477	0	0	-841,247	-992,725		
Proj Net		48,995		55,017	235,102	113,877	175,897	293,316	-713,334	208,869		

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

Cost Year 02

Project	65008216	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	96,218	17,250	17,250	17,250	17,250	17,250	17,250	17,250	17,250	17,250	17,250	17,250	17,250	303,218
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	87,500	17,250	17,250	17,250	17,250	17,250	17,250	17,250	17,250	17,250	17,250	17,250	17,250	294,500
370-Outside Services	700,000	328,000	175,500	156,000	250,000	348,000	151,500	422,333	495,090	344,033	356,000	157,333	157,333	4,041,122
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	100,524	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	172,524
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	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	-7,621	-2,523	-2,523	0	0	0	0	0	0	0	0	0	0	-12,668
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	7,686	1,352	1,352	1,352	1,352	1,352	1,352	1,352	1,352	1,352	1,352	1,352	1,352	23,915
914-Pension and Benefits Load	29,239	4,708	4,708	4,708	4,708	4,708	4,708	4,708	4,708	4,708	4,708	4,708	4,708	85,730
915-Injuries and Damages Load	6,367	1,073	1,073	1,073	1,073	1,073	1,073	1,073	1,073	1,073	1,073	1,073	1,073	19,243
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	3,344	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	18,145
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	81,533	10,217	6,069	5,539	8,096	10,761	5,416	12,783	14,762	10,653	10,979	5,575	5,575	187,959
926-A and G Loads	82,009	24,763	14,515	13,205	19,522	26,107	12,902	31,102	35,992	25,841	26,645	13,294	13,294	339,191
928-AFUDC Debt Reg	7,172	1,082	1,938	2,557	3,289	3,366	4,237	5,219	6,696	6,194	7,367	8,282	8,918	66,316
929-AFUDC - Equity Regular	7,623	1,419	2,542	3,354	4,314	4,415	5,557	6,845	8,784	8,124	9,663	10,863	11,698	85,200
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	1,201,594	411,824	246,907	229,520	334,087	441,516	228,479	527,148	610,190	443,711	459,521	244,213	245,685	5,624,394
825-Clearings	-992,725	0	0	0	-358,162	0	0	0	-720,455	0	0	0	-1,777,247	-3,848,589
Clr Sum	-992,725	0	0	0	-358,162	0	0	0	-720,455	0	0	0	-1,777,247	-3,848,589
Proj Net	208,869	411,824	246,907	229,520	-24,076	441,516	228,479	527,148	-110,265	443,711	459,521	244,213	-1,531,562	1,775,805

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

Cost Year 03

Project	65008216	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	303,218	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	447,218
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	294,500	16,333	16,333	16,333	16,333	16,333	16,333	16,333	16,333	16,333	16,333	16,333	16,333	490,496
370-Outside Services	4,041,122	116,667	294,030	116,667	118,000	129,042	116,667	128,500	294,930	254,030	254,030	254,030	0	6,117,715
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	172,524	0	0	0	0	0	0	0	0	0	0	0	0	172,524
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	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	-12,668	0	0	0	0	0	0	0	0	0	0	0	0	-12,668
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	23,915	941	941	941	941	941	941	941	941	941	941	941	941	35,204
914-Pension and Benefits Load	85,730	3,275	3,275	3,275	3,275	3,275	3,275	3,275	3,275	3,275	3,275	3,275	3,275	125,027
915-Injuries and Damages Load	19,243	746	746	746	746	746	746	746	746	746	746	746	746	28,200
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	18,145	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	32,159
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	187,959	4,079	8,903	4,079	4,115	4,416	4,079	4,401	8,928	7,815	7,815	7,815	906	255,310
926-A and G Loads	339,191	9,744	21,663	9,744	9,834	10,576	9,744	10,539	21,723	18,975	18,975	18,975	1,904	501,586
928-AFUDC Debt Reg	66,316	4,857	5,565	6,277	5,110	5,586	6,062	3,386	4,105	5,007	1,773	2,605	3,078	119,726
929-AFUDC - Equity Regular	85,200	4,378	5,017	5,658	4,606	5,035	5,464	3,052	3,701	4,514	1,598	2,348	2,775	133,346
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	5,624,394	174,187	369,640	176,888	176,128	189,117	176,479	184,341	367,850	324,804	318,653	320,236	43,125	8,445,842
825-Clearings	-3,848,589	0	0	-624,491	0	0	-1,207,598	0	0	-1,563,444	0	0	-1,203,163	-8,447,285
Clr Sum	-3,848,589	0	0	-624,491	0	0	-1,207,598	0	0	-1,563,444	0	0	-1,203,163	-8,447,285
Proj Net	1,775,805	174,187	369,640	-447,603	176,128	189,117	-1,031,119	184,341	367,850	-1,238,640	318,653	320,236	-1,160,037	-1,443

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**Project No: 65008217 Line Switch Replacement**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

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

List Interim In-Service Dates

Project Need Justification

The 115kv transmission system in the metro Albuquerque area was developed in the early 1960's. At the same time, 115kv line sectionalizing switches were introduced in the system to allow multiple 115/12.47kV substations to be connected to individual lines. As the load has grown, many of these older switches required upgrades (replacement of the switch blades) to increase their capacity. Some of these switches have subsequently experienced operating difficulty due to the increased weight of the higher capacity components and also from bearing failure in rotating bases. Maintenance has become much more frequent and several complete failures have occurred during operation.

Project Alternatives

The only other alternative to this project is to replace parts one at a time, as needed. Due to their age, replacement parts (e.g., rotating bases) are difficult to obtain. In addition, replacement of components must be done from bucket trucks which is slow and cumbersome. Complete replacement with new switches is the practical alternative.

Technical Aspects

Work will involve a complete replacement of all switches for the line. Prior to replacement, new switches will be procured and tested to ensure they have the proper current rating and loop interrupting capacity. After this is confirmed, the older switches will be removed and replaced with the new ones by physically mounting them on the associated transmission structure.

Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. Alliance pricing from our transmission switch provider was used. Labor and contractor estimates were created from past projects that are similar in nature. All overhead costs are standard and calculated using the approved corporate software. For this project, in-house labor is estimated at 10% of base costs (unloaded costs). This includes on-site work as well as some engineering design. Materials are estimated at 45%. Construction services is 45% with work performed by qualified utility contractors.



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

Cost Year 01

Project	65008217	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	65008217	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	36,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	73,000	0	0	0	73,000	0	0	0	0	81,000	227,000
370-Outside Services	0	0	0	0	54,000	54,000	54,000	0	54,000	54,000	54,000	0	0	324,000
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	235	235	235	235	235	235	235	235	235	235	235	235	2,822
914-Pension and Benefits Load	0	819	819	819	819	819	819	819	819	819	819	819	819	9,824
915-Injuries and Damages Load	0	187	187	187	187	187	187	187	187	187	187	187	187	2,239
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	5,220	0	0	0	5,220	0	0	0	0	5,792	16,231
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	115	115	2,101	1,584	1,584	1,584	2,101	1,584	1,584	1,584	115	2,319	16,371
926-A and G Loads	0	202	202	5,107	3,830	3,830	3,830	5,107	3,830	3,830	3,830	202	5,645	39,446
928-AFUDC Debt Reg	0	6	18	141	341	509	678	882	324	492	661	754	129	4,936
929-AFUDC - Equity Regular	0	8	23	185	448	668	890	1,157	425	645	867	989	169	6,474
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	4,571	4,599	89,994	64,444	64,833	65,223	91,708	64,404	64,792	65,183	6,300	99,294	685,344
825-Clearings	0	0	0	0	0	0	0	-292,882	0	0	0	-293,168	0	-586,050
Clr Sum	0	0	0	0	0	0	0	-292,882	0	0	0	-293,168	0	-586,050
Proj Net	0	4,571	4,599	89,994	64,444	64,833	65,223	-201,175	64,404	64,792	65,183	-286,868	99,294	99,294

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

Cost Year 03

Project	65008217	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	36,000	3,000	3,000	3,000	0	0	0	0	0	0	0	0	0	45,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	227,000	0	0	0	0	0	0	0	0	0	0	0	0	227,000
	370-Outside Services	324,000	54,000	54,000	54,000	0	0	0	0	0	0	0	0	0	486,000
	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	2,822	235	235	235	0	0	0	0	0	0	0	0	0	3,528
	914-Pension and Benefits Load	9,824	819	819	819	0	0	0	0	0	0	0	0	0	12,281
	915-Injuries and Damages Load	2,239	187	187	187	0	0	0	0	0	0	0	0	0	2,799
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	16,231	0	0	0	0	0	0	0	0	0	0	0	0	16,231
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	16,371	1,584	1,584	1,584	0	0	0	0	0	0	0	0	0	21,124
	926-A and G Loads	39,446	3,830	3,830	3,830	0	0	0	0	0	0	0	0	0	50,938
	928-AFUDC Debt Reg	4,936	342	510	679	0	0	0	0	0	0	0	0	0	6,468
	929-AFUDC - Equity Regular	6,474	309	460	612	0	0	0	0	0	0	0	0	0	7,855
	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	685,344	64,306	64,625	64,946	0	0	0	0	0	0	0	0	0	879,222
	825-Clearings	-586,050	0	0	-293,172	0	0	0	0	0	0	0	0	0	-879,222
	Clr Sum	-586,050	0	0	-293,172	0	0	0	0	0	0	0	0	0	-879,222
	Proj Net	99,294	64,306	64,625	-228,225	0	0	0	0	0	0	0	0	0	0

**Project No: 65008315 Storm Funding Project Co02**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 8/11/2016 Estimated Completion Date 12/31/2016

List Interim In-Service Dates

Phase 1-Ring 1 and Ring 3 Scope (excluding transformer replacement)=2/1/17Phase 2-Transformer Replacement=7/1/17

Project Need Justification

This project originated from an incident that caused a major outage to the Albuquerque metro area. The scope identified for this project is to replace (5) 115kV breakers and (6) 115 kV HOD (high ohmic distribution) vertical break switches. In addition, foundation work will be required for new CT (current transformers) and fiber cable. The final, yet most integral, part of this project will also be the upgrades to the protection and controls necessary to be compatible with the new switches and breakers. One additional piece of equipment that has been identified as faulty is a 200 MVA transformer, which will also need to be replaced. If this project is not complete, PNM will continue be at continued risk for outage and downtime because multiple transmission lines are forced to interact with single source feeds.

Project Alternatives

The main alternative discussed was to use other major projects breakers and switches to minimize outages to the system. After further analysis, it was determined that this would cause more man-hours and increase costs associated with installing the breakers currently in stock. In addition, it would be necessary to replace what was used with the correct 115kV breakers and switches for future repair jobs. The current project is the best approach in terms of cost and time.

Technical Aspects

This project first involves trained staff performing a full assessment of the original damage caused by the outage incident. After this assessment is complete, engineers and technical staff will design a new system utilizing the new equipment to repair the area and prevent the issue from occurring again. In addition to procurement of the breakers and switches, staff will also procure various necessary equipment and materials and then finally commence construction. This project will utilize PNM's existing land for West Mesa Ring 1 and 3 exclusively.

Project Estimate Approach

The project has been broken into 2 phases. Both phases combined were estimated using standard procedures. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment like the breakers and switches, alliance vendors provided information regarding the costs and schedules of these major items. All work excluding the transformer replacement in both ring 1 and ring 3 will cost an estimated \$2.5 million. The cost of the transformer and installation labor will cost an estimated \$3.5 million.

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

Cost Year 01

Project	65008315	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	0	75,000	75,000	75,000	225,000		
120-Overtime-General	0			0	0	0	60,000	60,000	60,000	180,000		
350-Material Issues-Major	0			0	0	0	45,000	45,000	45,000	135,000		
370-Outside Services	0			0	0	0	695,277	695,277	705,277	2,095,830		
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	20,000	20,000	20,000	60,000		
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	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	10,625	10,625	10,625	31,874		
914-Pension and Benefits Load	0			0	0	0	40,419	40,419	40,419	121,257		
915-Injuries and Damages Load	0			0	0	0	8,802	8,802	8,802	26,406		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	1,629	1,629	1,629	4,887		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	0	76,410	76,410	77,210	230,029		
926-A and G Loads	0			0	0	0	74,487	74,487	75,319	224,293		
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	1,107,648	1,107,648	1,119,280	3,334,576		
825-Clearings	0			0	0	0	0	0	-3,334,576	-3,334,576		
Clr Sum	0			0	0	0	0	0	-3,334,576	-3,334,576		
Proj Net	0			0	0	0	1,107,648	1,107,648	-2,215,296	0		

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

Cost Year 02

Project	65008315	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	225,000	0	0	0	0	0	0	0	0	0	0	0	0	225,000
	120-Overtime-General	180,000	0	0	0	0	0	0	0	0	0	0	0	0	180,000
	350-Material Issues-Major	135,000	0	0	0	0	0	0	0	0	0	0	0	0	135,000
	370-Outside Services	2,095,830	0	0	0	0	0	0	0	0	0	0	0	0	2,095,830
	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	60,000	0	0	0	0	0	0	0	0	0	0	0	0	60,000
	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	31,874	0	0	0	0	0	0	0	0	0	0	0	0	31,874
	914-Pension and Benefits Load	121,257	0	0	0	0	0	0	0	0	0	0	0	0	121,257
	915-Injuries and Damages Load	26,406	0	0	0	0	0	0	0	0	0	0	0	0	26,406
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	4,887	0	0	0	0	0	0	0	0	0	0	0	0	4,887
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	230,029	0	0	0	0	0	0	0	0	0	0	0	0	230,029
	926-A and G Loads	224,293	0	0	0	0	0	0	0	0	0	0	0	0	224,293
	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	3,334,576	0	0	0	0	0	0	0	0	0	0	0	0	3,334,576
	825-Clearings	-3,334,576	0	0	0	0	0	0	0	0	0	0	0	0	-3,334,576
	Clr Sum	-3,334,576	0	0	0	0	0	0	0	0	0	0	0	0	-3,334,576
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	65008315	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	225,000	0	0	0	0	0	0	0	0	0	0	0	0	225,000
	120-Overtime-General	180,000	0	0	0	0	0	0	0	0	0	0	0	0	180,000
	350-Material Issues-Major	135,000	0	0	0	0	0	0	0	0	0	0	0	0	135,000
	370-Outside Services	2,095,830	0	0	0	0	0	0	0	0	0	0	0	0	2,095,830
	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	60,000	0	0	0	0	0	0	0	0	0	0	0	0	60,000
	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	31,874	0	0	0	0	0	0	0	0	0	0	0	0	31,874
	914-Pension and Benefits Load	121,257	0	0	0	0	0	0	0	0	0	0	0	0	121,257
	915-Injuries and Damages Load	26,406	0	0	0	0	0	0	0	0	0	0	0	0	26,406
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	4,887	0	0	0	0	0	0	0	0	0	0	0	0	4,887
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	230,029	0	0	0	0	0	0	0	0	0	0	0	0	230,029
	926-A and G Loads	224,293	0	0	0	0	0	0	0	0	0	0	0	0	224,293
	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	3,334,576	0	0	0	0	0	0	0	0	0	0	0	0	3,334,576
	825-Clearings	-3,334,576	0	0	0	0	0	0	0	0	0	0	0	0	-3,334,576
	Clr Sum	-3,334,576	0	0	0	0	0	0	0	0	0	0	0	0	-3,334,576
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0





In some locations, PNM could be required to operate loadside generating resources out of economic order for an extended period of time during the outage. As a result, for example, PNM might be required to operate more expensive gas-fired generation with the transformer out of service. If a spare transformer is available, the period for operating such generation would be significantly reduced.

If the failure is in a location remote from any generation on the loadside of the autotransformer, PNM and any third-party users of PNM's transmission might be required to curtail load.

A further risk inherent in such failures is the extensive lead-time required to order and take delivery of a new bulk transformer. PNM's recent experience is that ordering and delivery of a similar sized new large power high voltage transformer could take anything from 9 to 24 months, depending on market conditions. To minimize this risk, a system spare 230/115 kV transformer will be installed at the West Mesa 230 kV station. The transformer will be installed in a manner that allows it to be relocated in the event of a failure of one of PNM's aging fleet of four other 230/115 kV bulk transformers.

#### Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment like transformers PNM's alliance vendors and requested information regarding the costs and schedules. Labor and contractor estimates were created from past projects that are similar in nature, for this project past Switching Stations (Ojo and Rio Puerco) were referenced. The estimate for this project was broken down by the following percentages. Internal labor including engineering, Project Management, Construction Management and station crews.

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

Cost Year 01

Project	65008317	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	65008317	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	1,000	1,000	1,000	1,000	5,000	5,000	5,000	0	0	0	0	0	19,000	
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	170,000	150,000	680,000	0	850,000	0	0	0	0	0	0	0	1,850,000	
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	78	78	78	78	392	392	392	0	0	0	0	0	1,490	
914-Pension and Benefits Load	0	273	273	273	273	1,365	1,365	1,365	0	0	0	0	0	5,185	
915-Injuries and Damages Load	0	62	62	62	62	311	311	311	0	0	0	0	0	1,182	
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	4,662	4,118	18,534	38	23,312	192	192	0	0	0	0	0	51,050	
926-A and G Loads	0	11,491	10,147	45,763	67	57,456	336	336	0	0	0	0	0	125,597	
928-AFUDC Debt Reg	0	244	706	1,898	2,884	4,125	5,382	5,435	0	0	0	0	0	20,676	
929-AFUDC - Equity Regular	0	321	926	2,490	3,783	5,411	7,060	7,129	0	0	0	0	0	27,120	
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	188,132	167,312	750,100	8,185	947,372	20,038	20,159	0	0	0	0	0	2,101,299	
825-Clearings	0	0	0	0	0	0	0	-2,101,299	0	0	0	0	0	-2,101,299	
Clr Sum	0	0	0	0	0	0	0	-2,101,299	0	0	0	0	0	-2,101,299	
Proj Net	0	188,132	167,312	750,100	8,185	947,372	20,038	-2,081,140	0	0	0	0	0	0	

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

Cost Year 03

Project	65008317	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	19,000	0	0	0	0	0	0	0	0	0	0	0	0	19,000
	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	1,850,000	0	0	0	0	0	0	0	0	0	0	0	0	1,850,000
	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	1,490	0	0	0	0	0	0	0	0	0	0	0	0	1,490
	914-Pension and Benefits Load	5,185	0	0	0	0	0	0	0	0	0	0	0	0	5,185
	915-Injuries and Damages Load	1,182	0	0	0	0	0	0	0	0	0	0	0	0	1,182
	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	51,050	0	0	0	0	0	0	0	0	0	0	0	0	51,050
	926-A and G Loads	125,597	0	0	0	0	0	0	0	0	0	0	0	0	125,597
	928-AFUDC Debt Reg	20,676	0	0	0	0	0	0	0	0	0	0	0	0	20,676
	929-AFUDC - Equity Regular	27,120	0	0	0	0	0	0	0	0	0	0	0	0	27,120
	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	2,101,299	0	0	0	0	0	0	0	0	0	0	0	0	2,101,299
	825-Clearings	-2,101,299	0	0	0	0	0	0	0	0	0	0	0	0	-2,101,299
	Clr Sum	-2,101,299	0	0	0	0	0	0	0	0	0	0	0	0	-2,101,299
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Project No: 65008515 Rio Puerco Series Comp**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

<u>Construction Start Date</u>	12/1/2014	<u>Estimated Completion Date</u>	9/30/2016
<u>List Interim In-Service Dates</u>			
<u>Project Need Justification</u>			

The current 345 kV series capacitors were installed in 1996 on the Four Corners-West Mesa 345 kV line and San Juan-BA 345 kV line to increase the transfer capability on the Northern New Mexico transmission system by shortening the electrical distance between the Four Corners area and the central New Mexico load center. An analysis of the Rio Puerco series capacitors has determined that the existing series capacitor protection is not sufficient to address the increases in fault duty that have resulted since the completion of the Rio Puerco 345 kV Station Expansion. This project extends the life of the series capacitor banks by adding high-speed bypass breakers to increase the protection level and replacing obsolete and worn components of the series capacitor protection and controls.

Project Alternatives

The alternative considered to adding high-speed bypass breakers was to install a triggered air gap (TAG) system. Installing this technology would result in a higher initial cost, higher ongoing operating and maintenance expenses, and typically require much longer outage times to perform maintenance on the TAGs. Due to the higher costs and maintenance times associated this technology, installing high-speed breakers was the selected option.

Technical Aspects

Along with addition of the high-speed bypass breakers, the project includes replacing fiber columns that are cracking, replacing protection and control systems, and modifying existing control cabinets and equipment to support new equipment

Project Estimate Approach

This project was sourced to General Electric (GE) due to the complexity of the work and the proprietary equipment previously installed at the station. PNM requested GE evaluate the station and provide an estimate for the upgrade. This estimate and scope of work was then reviewed by an outside agency acting as the Owners Engineer. Based on the review and recommendation from the Owners Engineer, PNM awarded this work to GE. GE included all labor and material as part of their estimate. Internal support was used for engineering oversight, inspection, project management and substation crews to perform energization switching and checks. At the time of the estimate, the cost was based on 2% internal labor and 98% outside services.

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

Cost Year 01

Project	65008515	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	48,818		0	0	5,000	0	0	0	53,818		
	120-Overtime-General	17,484		0	0	0	0	0	0	17,484		
	350-Material Issues-Major	351,136		0	0	0	0	0	0	351,136		
	370-Outside Services	4,584,527		0	0	200,000	0	0	0	4,784,527		
	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	2,126		0	0	0	0	0	0	2,126		
	610-Expenses - General	50		0	0	0	0	0	0	50		
	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	5,272		0	0	394	0	0	0	5,665		
	914-Pension and Benefits Load	17,521		0	0	1,497	0	0	0	19,018		
	915-Injuries and Damages Load	5,069		0	0	326	0	0	0	5,395		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	32,946		0	0	0	0	0	0	32,946		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	262,164		0	0	16,577	0	0	0	278,742		
	926-A and G Loads	430,027		0	0	17,056	0	0	0	447,083		
	928-AFUDC Debt Reg	107,402		2,436	2,448	2,731	0	0	0	115,016		
	929-AFUDC - Equity Regular	129,105		2,638	2,651	2,957	0	0	0	137,352		
	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	5,993,647		5,074	5,098	246,537	0	0	0	6,250,358		
	825-Clearings	-5,081,643		0	0	-1,337,544	0	0	0	-6,419,187		
	Clr Sum	-5,081,643		0	0	-1,337,544	0	0	0	-6,419,187		
Proj Net		912,004		5,074	5,098	-1,091,007	0	0	0	-168,830		

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

Cost Year 02

Project	65008515	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	53,818	0	0	0	0	0	0	0	0	0	0	0	0	53,818
	120-Overtime-General	17,484	0	0	0	0	0	0	0	0	0	0	0	0	17,484
	350-Material Issues-Major	351,136	0	0	0	0	0	0	0	0	0	0	0	0	351,136
	370-Outside Services	4,784,527	0	0	0	0	0	0	0	0	0	0	0	0	4,784,527
	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	2,126	0	0	0	0	0	0	0	0	0	0	0	0	2,126
	610-Expenses - General	50	0	0	0	0	0	0	0	0	0	0	0	0	50
	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	5,665	0	0	0	0	0	0	0	0	0	0	0	0	5,665
	914-Pension and Benefits Load	19,018	0	0	0	0	0	0	0	0	0	0	0	0	19,018
	915-Injuries and Damages Load	5,395	0	0	0	0	0	0	0	0	0	0	0	0	5,395
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	32,946	0	0	0	0	0	0	0	0	0	0	0	0	32,946
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	278,742	0	0	0	0	0	0	0	0	0	0	0	0	278,742
	926-A and G Loads	447,083	0	0	0	0	0	0	0	0	0	0	0	0	447,083
	928-AFUDC Debt Reg	115,016	0	0	0	0	0	0	0	0	0	0	0	0	115,016
	929-AFUDC - Equity Regular	137,352	0	0	0	0	0	0	0	0	0	0	0	0	137,352
	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	6,250,358	0	0	0	0	0	0	0	0	0	0	0	0	6,250,358
	825-Clearings	-6,419,187	0	0	0	0	0	0	0	0	0	0	0	0	-6,419,187
	Clr Sum	-6,419,187	0	0	0	0	0	0	0	0	0	0	0	0	-6,419,187
	Proj Net	-168,830	0	0	0	0	0	0	0	0	0	0	0	0	-168,830

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

Cost Year 03

Project	65008515	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	53,818	0	0	0	0	0	0	0	0	0	0	0	0	53,818
	120-Overtime-General	17,484	0	0	0	0	0	0	0	0	0	0	0	0	17,484
	350-Material Issues-Major	351,136	0	0	0	0	0	0	0	0	0	0	0	0	351,136
	370-Outside Services	4,784,527	0	0	0	0	0	0	0	0	0	0	0	0	4,784,527
	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	2,126	0	0	0	0	0	0	0	0	0	0	0	0	2,126
	610-Expenses - General	50	0	0	0	0	0	0	0	0	0	0	0	0	50
	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	5,665	0	0	0	0	0	0	0	0	0	0	0	0	5,665
	914-Pension and Benefits Load	19,018	0	0	0	0	0	0	0	0	0	0	0	0	19,018
	915-Injuries and Damages Load	5,395	0	0	0	0	0	0	0	0	0	0	0	0	5,395
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	32,946	0	0	0	0	0	0	0	0	0	0	0	0	32,946
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	278,742	0	0	0	0	0	0	0	0	0	0	0	0	278,742
	926-A and G Loads	447,083	0	0	0	0	0	0	0	0	0	0	0	0	447,083
	928-AFUDC Debt Reg	115,016	0	0	0	0	0	0	0	0	0	0	0	0	115,016
	929-AFUDC - Equity Regular	137,352	0	0	0	0	0	0	0	0	0	0	0	0	137,352
	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	6,250,358	0	0	0	0	0	0	0	0	0	0	0	0	6,250,358
	825-Clearings	-6,419,187	0	0	0	0	0	0	0	0	0	0	0	0	-6,419,187
	Clr Sum	-6,419,187	0	0	0	0	0	0	0	0	0	0	0	0	-6,419,187
	Proj Net	-168,830	0	0	0	0	0	0	0	0	0	0	0	0	-168,830

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**Project No: 65008614 Northern Microwave Communication Upgrade**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 11/10/2014 Estimated Completion Date 10/31/2016

List Interim In-Service Dates

Each WO is closed as completed, with an estimated 4 clearings per year.

Project Need Justification

This project is an authorization for overall capital replacement and improvement to the microwave system which provides transmission system communications for Northern New Mexico. This is to replace the legacy system with newer technology because the legacy platform is no longer supported by the manufacturer and spares are no longer available for repairs.

Project Alternatives

The alternative to continue to operate on the legacy microwave radio system risks system failure, requiring equipment or technical support that is no longer available. Loss of communications can adversely affect the visibility of system conditions and result in further reductions in system reliability and new instances of load shedding. The type of communications platform used at each location is considered on a case by case basis, depending the connectivity available. Where possible, fiber optic technologies are used. In many cases, microwave technologies were chosen as the most cost effective alternative.

Technical Aspects

Though considered on a task-by-task basis, technical work might include items related to improved communication network reliability, meeting new North American Electric Reliability Corporation (NERC) requirements and the inclusion of new technologies into the communication platform. Examples are provided below:-upgrading the legacy NEC2600 platform on the Northeastern Corridor with new Ipasolink radio system, which included self-healing ring technology.-upgrading the legacy 2600 radio platform in the Northern New Mexico system (Santa Fe, Las Vegas etc.) to both Ipasolink and Fujitsu platforms, which replaced a single threaded communications platform with self-healing ring technology. This project also enables PNM to meet new Western Electricity Coordinating Council (WECC) requirements.

Project Estimate Approach

Cost estimates are prepared on a per task basis. Estimates typically include major equipment prices from quotes provided by vendors, and minor materials and construction costs from previous work or competitive bids. Actual performance of field work will be based on staff availability at the time of construction. The total cost of the Northern Project was determined by reviewing the most appropriate technology for each communications location, obtaining appropriate vendor estimates for hardware and contract estimates for fiber/antenna work and adding internal resource cost for installation by PNM personnel. Approximately 60% of the project is related to materials, 10% of the project was based on contracted services from Collins Generator for antenna and waveguide installations, Micronet frequency coordination and Federal Communications Commission (FCC) licensing, and 20% of the project was in house labor for design, radio installation, and communications traffic cutover.

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

Cost Year 01

Project	65008614	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	71,794			0	0	0	5,000	0	0	76,794		
120-Overtime-General	15,911			0	0	0	0	0	0	15,911		
350-Material Issues-Major	0			0	0	0	99,000	0	0	99,000		
370-Outside Services	35,840			0	0	0	0	0	0	35,840		
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	2,436			0	0	0	0	0	0	2,436		
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	-297	-297	0	-595		
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	6,516			0	0	0	394	0	0	6,910		
914-Pension and Benefits Load	24,272			0	0	0	1,497	0	0	25,769		
915-Injuries and Damages Load	6,538			0	0	0	326	0	0	6,864		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	4,364			0	0	0	3,584	0	0	7,947		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	25,816			0	0	0	8,497	0	0	34,313		
926-A and G Loads	65,710			0	0	0	8,653	0	0	74,363		
928-AFUDC Debt Reg	51,257			2,338	0	0	143	286	0	54,023		
929-AFUDC - Equity Regular	57,776			2,531	0	0	155	310	0	60,772		
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	368,229			4,869	0	0	126,950	298	0	500,347		
825-Clearings	0			-1,041,926	0	0	0	-127,248	0	-1,169,175		
Clr Sum	0			-1,041,926	0	0	0	-127,248	0	-1,169,175		
Proj Net	368,229			-1,037,057	0	0	126,950	-126,950	0	-668,828		

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

Cost Year 02

Project	65008614	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	76,794	0	0	0	0	0	0	0	0	0	0	0	0	76,794
	120-Overtime-General	15,911	0	0	0	0	0	0	0	0	0	0	0	0	15,911
	350-Material Issues-Major	99,000	0	0	0	0	0	0	0	0	0	0	0	0	99,000
	370-Outside Services	35,840	0	0	0	0	0	0	0	0	0	0	0	0	35,840
	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	2,436	0	0	0	0	0	0	0	0	0	0	0	0	2,436
	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	-595	0	0	0	0	0	0	0	0	0	0	0	0	-595
	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	6,910	0	0	0	0	0	0	0	0	0	0	0	0	6,910
	914-Pension and Benefits Load	25,769	0	0	0	0	0	0	0	0	0	0	0	0	25,769
	915-Injuries and Damages Load	6,864	0	0	0	0	0	0	0	0	0	0	0	0	6,864
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	7,947	0	0	0	0	0	0	0	0	0	0	0	0	7,947
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	34,313	0	0	0	0	0	0	0	0	0	0	0	0	34,313
	926-A and G Loads	74,363	0	0	0	0	0	0	0	0	0	0	0	0	74,363
	928-AFUDC Debt Reg	54,023	0	0	0	0	0	0	0	0	0	0	0	0	54,023
	929-AFUDC - Equity Regular	60,772	0	0	0	0	0	0	0	0	0	0	0	0	60,772
	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	500,347	0	0	0	0	0	0	0	0	0	0	0	0	500,347
	825-Clearings	-1,169,175	0	0	0	0	0	0	0	0	0	0	0	0	-1,169,175
	Clr Sum	-1,169,175	0	0	0	0	0	0	0	0	0	0	0	0	-1,169,175
	Proj Net	-668,828	0	0	0	0	0	0	0	0	0	0	0	0	-668,828

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

Cost Year 03

Project	65008614	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	76,794	0	0	0	0	0	0	0	0	0	0	0	0	76,794
	120-Overtime-General	15,911	0	0	0	0	0	0	0	0	0	0	0	0	15,911
	350-Material Issues-Major	99,000	0	0	0	0	0	0	0	0	0	0	0	0	99,000
	370-Outside Services	35,840	0	0	0	0	0	0	0	0	0	0	0	0	35,840
	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	2,436	0	0	0	0	0	0	0	0	0	0	0	0	2,436
	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	-595	0	0	0	0	0	0	0	0	0	0	0	0	-595
	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	6,910	0	0	0	0	0	0	0	0	0	0	0	0	6,910
	914-Pension and Benefits Load	25,769	0	0	0	0	0	0	0	0	0	0	0	0	25,769
	915-Injuries and Damages Load	6,864	0	0	0	0	0	0	0	0	0	0	0	0	6,864
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	7,947	0	0	0	0	0	0	0	0	0	0	0	0	7,947
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	34,313	0	0	0	0	0	0	0	0	0	0	0	0	34,313
	926-A and G Loads	74,363	0	0	0	0	0	0	0	0	0	0	0	0	74,363
	928-AFUDC Debt Reg	54,023	0	0	0	0	0	0	0	0	0	0	0	0	54,023
	929-AFUDC - Equity Regular	60,772	0	0	0	0	0	0	0	0	0	0	0	0	60,772
	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	500,347	0	0	0	0	0	0	0	0	0	0	0	0	500,347
	825-Clearings	-1,169,175	0	0	0	0	0	0	0	0	0	0	0	0	-1,169,175
	Clr Sum	-1,169,175	0	0	0	0	0	0	0	0	0	0	0	0	-1,169,175
	Proj Net	-668,828	0	0	0	0	0	0	0	0	0	0	0	0	-668,828

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**Project No: 65008815 Tres Amigas Interconnection**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

<u>Construction Start Date</u>	6/1/2016	<u>Estimated Completion Date</u>	12/31/2016
<u>List Interim In-Service Dates</u>			
<u>Project Need Justification</u>			

This project involves the expansion of PNM's Blackwater 345 kV Switching Station to facilitate the interconnection of a proposed 345kV line originating from the proposed Tres Amigas Station in eastern New Mexico. The interconnection at Blackwater Station is in coordination with an interconnection of the Broadview Wind Generating Facilities to the Tres Amigas Station. The expansion of Blackwater Station will be used to transmit the Broadview Wind Facility output across the PNM transmission system.

Project Alternatives

Federal Energy Regulatory Commission (FERC) policy dictates that PNM must provide transmission interconnection service to eligible customers, on a non-discriminatory basis, as long as the interconnector meets all necessary requirements. Once a valid application for transmission interconnection is submitted, PNM will complete a study process that determines the most appropriate facilities needed to interconnect the transmission project to the transmission system. The study process also determines the impacts to the transmission system caused by the interconnection of the project and any system reinforcements or upgrades needed to remedy such impacts. Under the procedures, PNM is required to use due diligence to implement the interconnection and will construct, own and operate the transmission facilities required to interconnect the customer's transmission facility or project to the PNM transmission system.

Technical Aspects

The purpose of this project is to construct the necessary facilities to interconnect a new 345 kV transmission line from the proposed Tres Amigas Station to the Blackwater Station. The proposed 345 kV line would facilitate interconnection of a 297 MW Wind Generating Facility (the "Broadview Wind Facility") to the proposed Tres Amigas Station (which is Eastern New Mexico), which will then interconnect to the PNM transmission system at PNM's Blackwater 345 kV Switching Station ("Blackwater Station"), and enable transmission of the Broadview Wind Facility output across the PNM Transmission System. The interconnection customer will acquire all necessary land, permits, and right-of-way and will construct (at customer's sole expense and in accordance with PNM standards and specifications), the proposed Tres Amigas 345kV line. PNM will complete certain upgrades at the Blackwater Station, including installation of three new 345 kV breakers in a three breaker ring configuration (one of which will be completed at PNM's cost as it was PNM's election to replace the single existing Blackwater 345 kV breaker due to retirement), as well as construction and installation of the Transmission Provider Interconnection Facilities ("TPIF") at Blackwater Station to facilitate interconnection of the Tres Amigas 345 kV transmission line.

#### Project Estimate Approach

This project was estimated based on the standard procedure used by System Engineering. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment (ie. breakers) PNM contacted an alliance vendor (HVB) and requested information regarding the costs and schedules of these major items. Labor and contractor estimates were created from past projects that are similar in nature. All overhead costs are standard and calculated using the approved corporate software.

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

Cost Year 01

Project	65008815	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	62,419		17,000	17,000	20,000	20,000	20,000	10,000	166,419		
	120-Overtime-General	275		0	0	0	0	0	0	275		
	350-Material Issues-Major	288		140,000	160,000	120,000	100,000	20,000	10,000	550,288		
	370-Outside Services	917,395		600,000	600,000	600,000	600,000	500,000	180,000	3,997,395		
	374-Outside Svcs Legal	14,487		0	0	0	0	0	0	14,487		
	377-Outside Services-Temp Labor	3,735		0	0	0	0	0	0	3,735		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	970		0	0	0	0	0	0	970		
	610-Expenses - General	0		0	10,000	10,000	10,000	0	0	30,000		
	805-Land and Land Rights	0		0	0	0	0	0	0	0		
	807-Non Refundable Contribution	-49,484		0	0	0	0	0	0	-49,484		
	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	5,590		1,338	1,338	1,574	1,574	1,574	787	13,775		
	914-Pension and Benefits Load	20,708		5,090	5,090	5,988	5,988	5,988	2,994	51,846		
	915-Injuries and Damages Load	4,752		1,108	1,108	1,304	1,304	1,304	652	11,532		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	5,505		5,068	5,792	4,344	3,620	724	362	25,415		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	50,688		61,163	63,563	60,709	59,109	43,909	16,355	355,496		
	926-A and G Loads	84,002		62,982	65,478	62,400	60,736	44,928	16,640	397,167		
	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	1,121,330		893,749	929,369	886,319	862,331	638,427	237,790	5,569,316		
	825-Clearings	0		0	0	0	0	0	-5,582,983	-5,582,983		
	Clr Sum	0		0	0	0	0	0	-5,582,983	-5,582,983		
Proj Net		1,121,330		893,749	929,369	886,319	862,331	638,427	-5,345,193	-13,667		

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

Cost Year 02

Project	65008815	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	166,419	0	0	0	0	0	0	0	0	0	0	0	0	166,419
	120-Overtime-General	275	0	0	0	0	0	0	0	0	0	0	0	0	275
	350-Material Issues-Major	550,288	0	0	0	0	0	0	0	0	0	0	0	0	550,288
	370-Outside Services	3,997,395	0	0	0	0	0	0	0	0	0	0	0	0	3,997,395
	374-Outside Svcs Legal	14,487	0	0	0	0	0	0	0	0	0	0	0	0	14,487
	377-Outside Services-Temp Labor	3,735	0	0	0	0	0	0	0	0	0	0	0	0	3,735
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	970	0	0	0	0	0	0	0	0	0	0	0	0	970
	610-Expenses - General	30,000	0	0	0	0	0	0	0	0	0	0	0	0	30,000
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		-49,484	0	0	0	0	0	0	0	0	0	0	0	0	-49,484
	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	13,775	0	0	0	0	0	0	0	0	0	0	0	0	13,775
	914-Pension and Benefits Load	51,846	0	0	0	0	0	0	0	0	0	0	0	0	51,846
	915-Injuries and Damages Load	11,532	0	0	0	0	0	0	0	0	0	0	0	0	11,532
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	25,415	0	0	0	0	0	0	0	0	0	0	0	0	25,415
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	355,496	0	0	0	0	0	0	0	0	0	0	0	0	355,496
	926-A and G Loads	397,167	0	0	0	0	0	0	0	0	0	0	0	0	397,167
	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	5,569,316	0	0	0	0	0	0	0	0	0	0	0	0	5,569,316
	825-Clearings	-5,582,983	0	0	0	0	0	0	0	0	0	0	0	0	-5,582,983
	Clr Sum	-5,582,983	0	0	0	0	0	0	0	0	0	0	0	0	-5,582,983
Proj Net		-13,667	0	0	0	0	0	0	0	0	0	0	0	0	-13,667

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

Cost Year 03

Project	65008815	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	166,419	0	0	0	0	0	0	0	0	0	0	0	0	166,419
	120-Overtime-General	275	0	0	0	0	0	0	0	0	0	0	0	0	275
	350-Material Issues-Major	550,288	0	0	0	0	0	0	0	0	0	0	0	0	550,288
	370-Outside Services	3,997,395	0	0	0	0	0	0	0	0	0	0	0	0	3,997,395
	374-Outside Svcs Legal	14,487	0	0	0	0	0	0	0	0	0	0	0	0	14,487
	377-Outside Services-Temp Labor	3,735	0	0	0	0	0	0	0	0	0	0	0	0	3,735
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	970	0	0	0	0	0	0	0	0	0	0	0	0	970
	610-Expenses - General	30,000	0	0	0	0	0	0	0	0	0	0	0	0	30,000
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		-49,484	0	0	0	0	0	0	0	0	0	0	0	0	-49,484
	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	13,775	0	0	0	0	0	0	0	0	0	0	0	0	13,775
	914-Pension and Benefits Load	51,846	0	0	0	0	0	0	0	0	0	0	0	0	51,846
	915-Injuries and Damages Load	11,532	0	0	0	0	0	0	0	0	0	0	0	0	11,532
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	25,415	0	0	0	0	0	0	0	0	0	0	0	0	25,415
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	355,496	0	0	0	0	0	0	0	0	0	0	0	0	355,496
	926-A and G Loads	397,167	0	0	0	0	0	0	0	0	0	0	0	0	397,167
	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	5,569,316	0	0	0	0	0	0	0	0	0	0	0	0	5,569,316
	825-Clearings	-5,582,983	0	0	0	0	0	0	0	0	0	0	0	0	-5,582,983
	Clr Sum	-5,582,983	0	0	0	0	0	0	0	0	0	0	0	0	-5,582,983
Proj Net		-13,667	0	0	0	0	0	0	0	0	0	0	0	0	-13,667

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**Project No: 65008912 San Clemente Substation C02**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 9/1/2016 Estimated Completion Date 8/31/2018

List Interim In-Service Dates  
N/A

Project Need Justification

This project is to build a new transmission line to connect the new San Clemente substation to the 115kV transmission system. The new substation was recommended due to existing strains on demand and is expected to support growth along the Highways 6 and 314 corridors. Presently, the 2016 peak load on the substation is 5,133 KVA which is 82% of it's normal rating. In 2009, the peak load was 6,615 KVA which was 106% of its normal rating (and 96% of it's emergency rating). To reduce strain on the transformer, load was transferred to the Los Lunas Substation. The 2016 peak load on the Los Lunas substation was 5,621 KVA which is 90% of it's normal rating. Los Chavez, San Clemente, Los Lunas, and Los Morros substations are currently providing the distribution delivery capacity for this area. San Clemente Substation will provide backup capacity to the aforementioned substations. Currently, an outage of either the Los Lunas Substation or the Los Chavez Substation would overload the existing San Clemente Substation transformer by over 300 hours per year. This project will simplify system operations by eliminating several supplemental cascading load transfers, minimize outage restoration times, and allow distribution operations more certainty that adjacent facilities, required to accomplish the proposed restoration, will be available when needed.

Project Alternatives

All substation location alternatives considered will need to connect to the 115kV WB transmission line. Two route alternatives were studied for the chosen substation site. The first alternative was along the existing Morros Road alignment. The second was on the south side of the Central New Mexico Correctional Facility along the irrigation access for the agricultural fields. The recommended alternative was to use the existing Morros Road alignment due to it being the shortest, most direct route that also offers better access to the new line.

Technical Aspects

Provide transmission service by building approximately 9,500 ft. of double circuit 115kV line from the west bound line located west of I-25 to the new San Clemente Substation.

Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. Basic material is estimated using actual costs of past projects, updated in the estimating software periodically. For major equipment such as transmission structures we contacted our alliance vendor (Trinity Meyer) and requested information regarding the costs and schedules of these major items. Labor and contractor estimates were created from past projects that are similar in nature, for this project past unit substations Snow Vista and Scenic were referenced. All overhead costs are standard and calculated using the approved corporate software.

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

Cost Year 01

Project	65008912	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	65008912	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	45,253	31,938	14,546	91,737	
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	1,608	40,966	2,366	44,941	
370-Outside Services	0	0	0	0	0	0	0	0	0	0	37,368	340,795	405,988	784,151	
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	3,548	2,504	1,140	7,192	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	12,350	8,716	3,970	25,035	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	2,815	1,987	905	5,706	
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	115	2,929	169	3,213	
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	2,800	11,612	11,666	26,078	
926-A and G Loads	0	0	0	0	0	0	0	0	0	0	5,660	27,801	28,419	61,880	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	145	903	611	1,660	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	191	1,185	802	2,177	
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	111,853	471,334	470,583	1,053,770	
825-Cleanings	0	0	0	0	0	0	0	0	0	0	0	-583,187	0	-583,187	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	-583,187	0	-583,187	
Proj Net	0	0	0	0	0	0	0	0	0	0	111,853	-111,853	470,583	470,583	

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

Cost Year 03

Project	65008912	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	91,737	38,300	36,963	33,918	12,800	10,477	11,857	10,901	22,830	0	0	0	0	269,782
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	44,941	74,402	25,689	1,906	1,482	112,407	12,945	2,072	16,796	0	0	0	0	292,639
370-Outside Services	784,151	594,090	5,069	170,993	77,344	23,808	530,664	184,833	24,307	0	0	0	0	2,395,259
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	7,192	3,003	2,898	2,659	1,004	821	930	855	1,790	0	0	0	0	21,151
914-Pension and Benefits Load	25,035	10,452	10,087	9,256	3,493	2,859	3,236	2,975	6,230	0	0	0	0	73,624
915-Injuries and Damages Load	5,706	2,382	2,299	2,110	796	652	737	678	1,420	0	0	0	0	16,780
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	3,213	5,320	1,837	136	106	8,037	926	148	1,201	0	0	0	0	20,924
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	26,078	19,656	2,258	6,007	2,636	4,108	15,242	5,503	1,996	0	0	0	0	83,483
926-A and G Loads	61,880	47,496	4,551	13,898	6,157	9,858	37,327	13,293	4,296	0	0	0	0	198,756
928-AFUDC Debt Reg	1,660	2,267	3,436	3,888	4,360	4,745	5,796	6,916	7,344	0	0	0	0	40,412
929-AFUDC - Equity Regular	2,177	2,044	3,098	3,504	3,930	4,278	5,225	6,234	6,621	0	0	0	0	37,110
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	1,053,770	799,412	98,184	248,275	114,107	182,049	624,884	234,407	94,831	0	0	0	0	3,449,920
825-Clearings	-583,187	0	0	0	0	0	0	0	-2,866,733	0	0	0	0	-3,449,920
Clr Sum	-583,187	0	0	0	0	0	0	0	-2,866,733	0	0	0	0	-3,449,920
Proj Net	470,583	799,412	98,184	248,275	114,107	182,049	624,884	234,407	-2,771,902	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 01

Project	65008916	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	65008916	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	5,000	20,000	20,000	20,000	20,000	10,000	0	0	0	95,000
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	300,000	50,000	50,000	72,000	72,000	21,000	21,000	21,000	20,870	627,870
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	392	1,568	1,568	1,568	1,568	784	0	0	0	7,448
914-Pension and Benefits Load	0	0	0	0	1,365	5,458	5,458	5,458	5,458	2,729	0	0	0	25,926
915-Injuries and Damages Load	0	0	0	0	311	1,244	1,244	1,244	1,244	622	0	0	0	5,909
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	8,352	2,129	2,129	2,727	2,727	956	571	571	568	20,731
926-A and G Loads	0	0	0	0	20,496	4,704	4,704	6,182	6,182	2,083	1,411	1,411	1,402	48,577
928-AFUDC Debt Reg	0	0	0	0	438	989	1,217	1,478	1,771	1,974	2,065	2,138	2,210	14,280
929-AFUDC - Equity Regular	0	0	0	0	574	1,297	1,596	1,938	2,323	2,589	2,709	2,804	2,899	18,730
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	336,928	87,390	87,916	112,595	113,274	42,736	27,757	27,924	27,950	864,469
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	336,928	87,390	87,916	112,595	113,274	42,736	27,757	27,924	27,950	864,469



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

Cost Year 03

Project	65008916	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	95,000	0	0	0	0	0	0	0	0	0	0	0	0	95,000	
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	627,870	105,042	105,042	105,042	105,042	105,042	105,042	127,042	127,042	127,042	127,042	127,042	104,952	1,998,284	
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	7,448	0	0	0	0	0	0	0	0	0	0	0	0	7,448	
914-Pension and Benefits Load	25,926	0	0	0	0	0	0	0	0	0	0	0	0	25,926	
915-Injuries and Damages Load	5,909	0	0	0	0	0	0	0	0	0	0	0	0	5,909	
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	20,731	2,857	2,857	2,857	2,857	2,857	2,857	3,456	3,456	3,456	3,456	3,456	2,855	58,006	
926-A and G Loads	48,577	7,059	7,059	7,059	7,059	7,059	7,059	8,537	8,537	8,537	8,537	8,537	7,053	140,669	
928-AFUDC Debt Reg	14,280	2,408	2,720	3,034	3,349	3,666	3,984	4,336	4,720	5,107	5,495	5,885	6,246	65,228	
929-AFUDC - Equity Regular	18,730	2,170	2,452	2,735	3,019	3,304	3,591	3,908	4,255	4,603	4,954	5,305	5,631	64,658	
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	864,469	119,536	120,130	120,726	121,326	121,928	122,534	147,279	148,010	148,745	149,483	150,226	126,736	2,461,127	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-2,461,127	-2,461,127	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-2,461,127	-2,461,127	
Proj Net	864,469	119,536	120,130	120,726	121,326	121,928	122,534	147,279	148,010	148,745	149,483	150,226	-2,334,391	0	

**Project No: 65009013 Richmond Switching Station**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

<u>Construction Start Date</u>	9/23/2015	<u>Estimated Completion Date</u>	6/30/2017
<u>List Interim In-Service Dates</u>			
<u>Project Need Justification</u>			

Recent technical studies indicate that load growth will cause overloads on parts of the Albuquerque transmission system. To mitigate this particular issue, a switching station will be constructed to allow the reconfiguring of the existing system to create a line from North to Sandia. Technical studies demonstrate that without this project PNM will be in violation of NERC Transmission Planning compliance standards (TPL). Non-compliance with NERC standards could subject PNM to fines that can range from a few thousand dollars to several hundred thousand dollars for each day PNM remains in violation. This fine could be adjusted upward to a maximum of one million dollars a day per violation depending on the degree of the violations, number of time of occurrence and other factors of the violation. The requested funds will be allocated toward the purchase of the land for the station site and materials including breakers, switches, steel, and control house and other equipment needed to construct and energize the installation.

Project Alternatives

There were two alternatives evaluated, but both were more costly then the solution selected.1) Transmission Planning examined the possibility of upgrading several Albuquerque 115 kV lines. The cost of this alternative was \$12.8 million.2) Transmission Planning also examined the possibility of building a line between North and Sandia 115 kV stations by reconfiguring the existing system and constructing a new portion of line between Montano and North which will require new ROW. The cost of this alternative is \$16.4 million.

Technical Aspects

Recent technical studies of the Albuquerque transmission system have shown that load growth will cause overloads on the Albuquerque 115 kV transmission system following a loss of the 345 kV source to Sandia. These overloads are a violation of NERC standard TPL-002. Transmission Planning has determined that the most cost effective mitigation of the overload will be to create a direct path between North and Sandia 115 kV stations by building a new 115 kV station on the CG 115 kV line and reconfiguring the existing system to create a line from North to Sandia. This project will include the installation of breakers, control house, hand operated switches, motor operated switches, station bus, wire, insulators, structures, fiber, relays, conductor and controls wire.

#### Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. A market value analysis was conducted to determine the land costs. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment like circuit breakers, we contacted our alliance vendors (HVB or Siemens) and requested information regarding the costs and schedules of these major items. Labor and contractor estimates were created from past projects that are similar in nature, for this project past switching stations (Britton and Rio Puerco) were referenced. All overhead costs are standard and calculated using the approved corporate software. Labor contributed to 2% of the estimate, material was 11% of the total estimate, 47% was outside services which included, engineering, construction, testing and commissioning, and the final 40% included right-of-of way costs, land purchase, environmental, permitting, company loads and allowance for funds used during construction.

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

Cost Year 01

Project	65009013	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	203,649		13,500	7,500	7,500	7,500	11,200	11,200	262,049		
	120-Overtime-General	1,709		0	0	0	0	0	0	1,709		
	350-Material Issues-Major	163,111		0	0	0	0	0	0	163,111		
	370-Outside Services	2,801,219		120,800	100,000	243,971	130,000	150,700	50,000	3,596,690		
	374-Outside Svcs Legal	1,083		0	0	0	0	0	0	1,083		
	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	1,843		0	0	0	0	0	0	1,843		
	610-Expenses - General	0		0	0	0	0	0	0	0		
	805-Land and Land Rights	2,935,919		0	0	0	0	0	0	2,935,919		
	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	16,795		1,062	590	590	590	881	881	21,391		
	914-Pension and Benefits Load	61,091		4,042	2,246	2,246	2,246	3,353	3,353	78,576		
	915-Injuries and Damages Load	15,805		880	489	489	489	730	730	19,613		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	26,559		0	0	0	0	0	0	26,559		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	246,316		11,223	8,866	20,384	11,266	13,349	5,293	316,697		
	926-A and G Loads	312,440		5,587	4,472	10,461	5,720	6,735	2,546	347,961		
	928-AFUDC Debt Reg	159,247		12,952	13,330	13,854	14,419	14,875	15,239	243,916		
	929-AFUDC - Equity Regular	152,677		14,026	14,436	15,004	15,615	16,109	16,503	244,371		
	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	7,099,464		184,073	151,928	314,498	187,845	217,934	105,747	8,261,489		
	825-Clearings	-2,793,585		0	0	0	0	0	0	-2,793,585		
	Clr Sum	-2,793,585		0	0	0	0	0	0	-2,793,585		
Proj Net		4,305,879		184,073	151,928	314,498	187,845	217,934	105,747	5,467,903		

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

Cost Year 02

Project	65009013	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	262,049	8,000	8,500	10,500	8,000	11,000	11,000	0	0	0	0	0	0	319,049
120-Overtime-General	1,709	0	0	0	0	0	0	0	0	0	0	0	0	1,709
350-Material Issues-Major	163,111	50,000	0	0	0	0	0	0	0	0	0	0	0	213,111
370-Outside Services	3,596,690	150,000	215,000	220,000	210,000	242,113	0	0	0	0	0	0	0	4,633,803
374-Outside Svcs Legal	1,083	0	0	0	0	0	0	0	0	0	0	0	0	1,083
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	1,843	0	0	0	0	0	0	0	0	0	0	0	0	1,843
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	2,935,919	0	0	0	0	0	0	0	0	0	0	0	0	2,935,919
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	21,391	627	666	823	627	862	862	0	0	0	0	0	0	25,859
914-Pension and Benefits Load	78,576	2,183	2,320	2,865	2,183	3,002	3,002	0	0	0	0	0	0	94,131
915-Injuries and Damages Load	19,613	498	529	653	498	684	684	0	0	0	0	0	0	23,158
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	26,559	3,575	0	0	0	0	0	0	0	0	0	0	0	30,134
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	316,697	5,748	6,175	6,388	6,020	7,008	423	0	0	0	0	0	0	348,458
926-A and G Loads	347,961	6,989	7,510	7,745	7,325	8,505	370	0	0	0	0	0	0	386,403
928-AFUDC Debt Reg	243,916	18,099	18,819	19,570	20,319	21,103	21,607	0	0	0	0	0	0	363,434
929-AFUDC - Equity Regular	244,371	23,740	24,684	25,670	26,651	27,680	28,342	0	0	0	0	0	0	401,138
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	8,261,489	269,459	284,202	294,215	281,622	321,958	66,290	0	0	0	0	0	0	9,779,235
825-Clearings	-2,793,585	0	0	0	0	0	-8,347,455	0	0	0	0	0	0	-11,141,040
Clr Sum	-2,793,585	0	0	0	0	0	-8,347,455	0	0	0	0	0	0	-11,141,040
Proj Net	5,467,903	269,459	284,202	294,215	281,622	321,958	-8,281,164	0	0	0	0	0	0	-1,361,805

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

Cost Year 03

Project	65009013	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	319,049	0	0	0	0	0	0	0	0	0	0	0	0	319,049
	120-Overtime-General	1,709	0	0	0	0	0	0	0	0	0	0	0	0	1,709
	350-Material Issues-Major	213,111	0	0	0	0	0	0	0	0	0	0	0	0	213,111
	370-Outside Services	4,633,803	0	0	0	0	0	0	0	0	0	0	0	0	4,633,803
	374-Outside Svcs Legal	1,083	0	0	0	0	0	0	0	0	0	0	0	0	1,083
	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	1,843	0	0	0	0	0	0	0	0	0	0	0	0	1,843
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	2,935,919	0	0	0	0	0	0	0	0	0	0	0	0	2,935,919
	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	25,859	0	0	0	0	0	0	0	0	0	0	0	0	25,859
	914-Pension and Benefits Load	94,131	0	0	0	0	0	0	0	0	0	0	0	0	94,131
	915-Injuries and Damages Load	23,158	0	0	0	0	0	0	0	0	0	0	0	0	23,158
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	30,134	0	0	0	0	0	0	0	0	0	0	0	0	30,134
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	348,458	0	0	0	0	0	0	0	0	0	0	0	0	348,458
	926-A and G Loads	386,403	0	0	0	0	0	0	0	0	0	0	0	0	386,403
	928-AFUDC Debt Reg	363,434	0	0	0	0	0	0	0	0	0	0	0	0	363,434
	929-AFUDC - Equity Regular	401,138	0	0	0	0	0	0	0	0	0	0	0	0	401,138
	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	9,779,235	0	0	0	0	0	0	0	0	0	0	0	0	9,779,235
	825-Clearings	-11,141,040	0	0	0	0	0	0	0	0	0	0	0	0	-11,141,040
	Clr Sum	-11,141,040	0	0	0	0	0	0	0	0	0	0	0	0	-11,141,040
	Proj Net	-1,361,805	0	0	0	0	0	0	0	0	0	0	0	0	-1,361,805

***Project No: 65009014 Second 345/115 kV Transformer at Yah-Ta-Hey***

Company: 002-Transmission Services

Location: 650 Transmission

Project Information

Construction Start Date 5/1/2015

Estimated Completion Date 7/31/2017

List Interim In-Service Dates

N/A

Project Need Justification

The Yah-Ta-Hey 345/115 kV transformer serves as a major bulk power interconnection for the northwestern New Mexico 115 kV system. The northwestern New Mexico load area includes Navajo Tribal Utility Authority (NTUA), City of Gallup and the Tristate Generation and Transmission Association, Inc. (TSGT) member cooperative loads serving numerous communities including Gallup and Grants. Technical studies have identified overloads of the Yah-Ta-Hey 345/115 kV transformer for outages of major 345 kV and 230 kV transmission facilities and unacceptable voltage levels in the Gallup area when the existing transformer is out of service. Outages of the Yah-Ta-Hey 345/115 kV transformer also significantly reduce PNM's import capability into northern New Mexico and would substantially increase the need for gas-fired generation utilized in the Albuquerque area. If these conditions continue, PNM will be in violation of NERC Transmission Planning compliance standards (TPL).

Project Alternatives

The only other alternative involves replacing the existing transformer with a larger unit. This would address the overload issues, but would ultimately fail to mitigate voltage performance issues, especially under Yah-Ta-Hey transformer maintenance and outage situations.

Technical Aspects

PNM will install a second 345/115 kV transformer in the Yah-Ta-Hey 115 kV Switching Station and facilitate completion of associated station work in the Yah-Ta-Hey and McKinley switchyards. Tucson Electric Power Company (TEP) will be responsible to complete all necessary improvements for the new 345 kV bay position at the McKinley 345 kV Switching Station which requires installation of a new 345 kV breaker. Further, PNM will rebuild the existing Yah-Ta-Hey 115 kV ring bus. The existing station was designed with a 2000 ampere bus which is below the 2600 ampere output capacity that will be coming from the 345 kV source with the second transformer addition. The second transformer addition will also increase short-circuit duty at the Yah-Ta-Hey 115 kV station beyond the capability of the six existing breakers requiring that the breakers be replaced. The increase short-circuit rating also exceeds the rating of the existing 115 kV bus. A complete rebuild of the bus along with replacement of the breakers would involve a series of outages while individual components are replaced and the remaining facility remained energized. This would be time consuming as the work would need to be performed in close proximity to energized equipment. As a result, the 115 kV ring bus will be rebuilt adjacent to the existing ring bus within the existing fenced Yah-Ta-Hey property. This will allow the existing station to remain energized during construction eliminating safety and outage concerns.

#### Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. Due to the complexity of the project, PNM engaged a consultant to prepare a draft layout and construction cost estimate. The 345/115kV autotransformer was competitively bid. For major equipment like circuit breakers PNM contacted alliance vendors (HVB or Siemens) and requested information regarding the costs and schedules of these major items. All overhead costs are standard and calculated using the approved corporate software. TEP provided an estimated cost for the interconnection facilities at McKinley which were reviewed and agreed to by PNM. Internal labor accounts for 5%, material accounts for 15%, contract services accounts for 65%, and overhead costs account for 15% of the total cost.



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

Cost Year 01

Project	65009014	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	123,084			10,000	130,480	141,480	141,480	40,000	166,480	753,004		
120-Overtime-General	342			0	0	0	0	0	0	342		
350-Material Issues-Major	38,162			58,618	118,618	168,168	134,000	118,168	0	635,734		
370-Outside Services	6,430,331			65,000	180,000	200,000	208,000	180,000	50,000	7,313,331		
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	12,676			0	0	0	0	0	0	12,676		
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	10,333			787	10,269	11,134	11,134	3,148	13,102	59,908		
914-Pension and Benefits Load	37,548			2,994	39,066	42,359	42,359	11,976	49,844	226,146		
915-Injuries and Damages Load	9,438			652	8,507	9,224	9,224	2,608	10,854	50,509		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	43,891			2,122	4,294	6,088	4,851	4,278	0	65,523		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	262,940			11,044	38,955	45,789	43,696	28,472	23,222	454,119		
926-A and G Loads	308,374			5,559	17,850	21,201	20,113	14,068	9,006	396,171		
928-AFUDC Debt Reg	280,462			19,875	13,309	14,716	16,206	17,429	18,328	380,324		
929-AFUDC - Equity Regular	288,332			21,524	14,413	15,937	17,550	18,875	19,848	396,479		
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	7,845,915			198,174	575,761	676,098	648,614	439,021	360,685	10,744,266		
825-Clearings	0			-3,306,809	0	0	0	0	0	-3,306,809		
Clr Sum	0			-3,306,809	0	0	0	0	0	-3,306,809		
Proj Net	7,845,915			-3,108,636	575,761	676,098	648,614	439,021	360,685	7,437,457		

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

Cost Year 02

Project	65009014	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jui	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	753,004	230,480	230,480	141,480	141,480	141,480	163,480	0	0	0	0	0	0	1,801,884	
120-Overtime-General	342	0	0	0	0	0	0	0	0	0	0	0	0	342	
350-Material Issues-Major	635,734	318,618	318,618	318,418	368,618	368,618	259,500	0	0	0	0	0	0	2,588,124	
370-Outside Services	7,313,331	350,000	420,000	370,000	360,000	280,000	230,000	0	0	0	0	0	0	9,323,331	
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	12,676	0	0	0	0	0	0	0	0	0	0	0	0	12,676	
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	59,908	18,070	18,070	11,092	11,092	11,092	12,817	0	0	0	0	0	0	142,140	
914-Pension and Benefits Load	226,146	62,898	62,898	38,610	38,610	38,610	44,614	0	0	0	0	0	0	512,386	
915-Injuries and Damages Load	50,509	14,336	14,336	8,800	8,800	8,800	10,168	0	0	0	0	0	0	115,750	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	65,523	22,781	22,781	22,767	26,356	26,356	18,554	0	0	0	0	0	0	205,119	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	454,119	27,048	28,952	24,164	25,258	23,082	19,600	0	0	0	0	0	0	602,222	
926-A and G Loads	396,171	30,210	32,562	27,885	29,235	26,547	21,940	0	0	0	0	0	0	564,549	
928-AFUDC Debt Reg	380,324	23,116	26,152	29,062	31,809	34,521	36,951	38,192	0	0	0	0	0	600,127	
929-AFUDC - Equity Regular	396,479	30,320	34,303	38,120	41,722	45,280	48,468	50,095	0	0	0	0	0	684,788	
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	10,744,266	1,127,876	1,209,152	1,030,399	1,082,980	1,004,386	866,093	88,286	0	0	0	0	0	17,153,438	
825-Clearings	-3,306,809	0	0	0	0	0	0	-14,739,863	0	0	0	0	0	-18,046,673	
Clr Sum	-3,306,809	0	0	0	0	0	0	-14,739,863	0	0	0	0	0	-18,046,673	
Proj Net	7,437,457	1,127,876	1,209,152	1,030,399	1,082,980	1,004,386	866,093	-14,651,577	0	0	0	0	0	-893,234	

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

Cost Year 03

Project	65009014	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,801,884	0	0	0	0	0	0	0	0	0	0	0	0	1,801,884
	120-Overtime-General	342	0	0	0	0	0	0	0	0	0	0	0	0	342
	350-Material Issues-Major	2,588,124	0	0	0	0	0	0	0	0	0	0	0	0	2,588,124
	370-Outside Services	9,323,331	0	0	0	0	0	0	0	0	0	0	0	0	9,323,331
	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	12,676	0	0	0	0	0	0	0	0	0	0	0	0	12,676
	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	142,140	0	0	0	0	0	0	0	0	0	0	0	0	142,140
	914-Pension and Benefits Load	512,386	0	0	0	0	0	0	0	0	0	0	0	0	512,386
	915-Injuries and Damages Load	115,750	0	0	0	0	0	0	0	0	0	0	0	0	115,750
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	205,119	0	0	0	0	0	0	0	0	0	0	0	0	205,119
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	602,222	0	0	0	0	0	0	0	0	0	0	0	0	602,222
	926-A and G Loads	564,549	0	0	0	0	0	0	0	0	0	0	0	0	564,549
	928-AFUDC Debt Reg	600,127	0	0	0	0	0	0	0	0	0	0	0	0	600,127
	929-AFUDC - Equity Regular	684,788	0	0	0	0	0	0	0	0	0	0	0	0	684,788
	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	17,153,438	0	0	0	0	0	0	0	0	0	0	0	0	17,153,438
	825-Clearings	-18,046,673	0	0	0	0	0	0	0	0	0	0	0	0	-18,046,673
	Clr Sum	-18,046,673	0	0	0	0	0	0	0	0	0	0	0	0	-18,046,673
	Proj Net	-893,234	0	0	0	0	0	0	0	0	0	0	0	0	-893,234

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*Project No: 65009017 Cabezon 345 kV Switching Station*

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 4/10/2017 Estimated Completion Date 5/31/2018

List Interim In-Service Dates

Project Need Justification

This project is for the construction of a new 345 kV switching station (Cabezon Station) with a three-breaker ring configuration and other associated facilities. This facility is in association with the interconnection of Tri-State Generation and Transmission Inc.'s (Tri-State) new 345/115 kV Torreon Substation to the Cabezon Station on PNM's San Juan-to-Rio Puerco 345 kV transmission line (WW Line). In compliance with Federal Energy Regulatory Commission (FERC) requirements regarding a transmission provider's obligation to provide non-discriminatory interconnection services to qualifying customers, and pursuant to the terms and conditions of the Network Integration Transmission Service Agreement (NITSA) and the Network Operating Agreement (NOA) through which PNM provides transmission service to Tri-State under PNM's Open Access Transmission Tariff (OATT), the purpose of the project is to complete the construction of the necessary system enhancements.

Project Alternatives

There are no alternatives to this project as it is federally regulated. FERC policy dictates that PNM must provide transmission interconnection service to eligible customers, on a non-discriminatory basis, as long as the interconnector meets all necessary requirements. Once a valid application for transmission interconnection is submitted, PNM will complete a study process that determines the most appropriate facilities needed to interconnect the transmission project to the transmission system. The study process also determines the impact to the transmission system from the interconnection project and any system reinforcements or upgrades needed to remedy such impacts. Under the procedures, PNM is required to use due diligence to implement the interconnection and will construct, own and operate the transmission facilities required to interconnect the customer's transmission facility or project to the PNM transmission system.

Technical Aspects

The facilities PNM will need to construct in order to interconnect Tri-State's Torreon substation to the PNM transmission system include the addition of three 345 kV breakers in a 345 kV three breaker ring configuration, disconnect switches, protection and control equipment, line terminal structure and line arrestors, all required facilities to interconnect the 345 kV line emanating from the Torreon Substation to the project, including a motor operated disconnect switch, associated insulators and surge arrestors, line termination

facilities, dead-end terminal structure and foundations, associated communications, protection, and controls equipment. Pursuant to the provisions of the agreement between PNM and Tri-State, Tri-State will provide all the necessary land and rights-of-way for the required project facilities and transfer them to PNM at no cost. Through the project, PNM will maintain and enhance system reliability by installing equipment necessary to comply with various NERC and WECC reliability standards including NERC TPL-001-4 planning standards that require the transmission system to be designed to insure the transmission grid maintains acceptable system performance. The Project will also allow PNM to comply with the NERC TOP-002 standard, which requires transmission operators to not operate outside any system operating limit (SOL) and interconnection reliability operating limits (IROL).

#### Project Estimate Approach

Budgetary estimates were prepared by internal and external engineering resources, with material cost estimates obtained by our sourcing group as needed. The project is part of a group of 6 larger station projects that went through a rigorous RFI (Request for Information) and RFQ (Request for Quotation) processes. Teams of reviewers were established for engineering, procurement and construction (EPC), and criteria was established to review more than a dozen firms. Through multiple rounds of reviews, a final list of EPC firms were selected. A 30% engineering design will be prepared for firms to bid from, and a hard bid will be solicited.

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

Cost Year 01

Project	65009017	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	45,440	0	0	0	0	45,440		
	370-Outside Services	0		66,900	57,500	57,500	45,000	45,000	472,905	744,805		
	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		315	315	315	315	315	315	1,889		
	914-Pension and Benefits Load	0		1,198	1,198	1,198	1,198	1,198	1,198	7,186		
	915-Injuries and Damages Load	0		261	261	261	261	261	261	1,565		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	0		0	1,645	0	0	0	0	1,645		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	0		5,814	8,697	5,062	4,062	4,062	38,294	65,991		
	926-A and G Loads	0		2,949	4,449	2,558	2,038	2,038	19,839	33,873		
	928-AFUDC Debt Reg	0		92	323	544	690	822	1,495	3,966		
	929-AFUDC - Equity Regular	0		99	350	589	748	890	1,619	4,295		
	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		81,628	124,177	72,026	58,311	58,585	539,925	934,652		
	825-Clearings	0		0	0	0	0	0	0	0		
	Clr Sum	0		0	0	0	0	0	0	0		
Proj Net		0		81,628	124,177	72,026	58,311	58,585	539,925	934,652		

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

Cost Year 02

Project	65009017	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	24,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	72,000	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	45,440	0	0	0	0	0	0	0	0	0	4,928	2,208,494	636,562	2,895,424	
370-Outside Services	744,805	0	0	0	0	215,000	193,908	248,719	897,996	699,507	633,697	901,350	1,419,213	5,954,195	
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	1,889	314	314	314	314	314	314	314	314	314	314	314	314	5,652	
914-Pension and Benefits Load	7,186	1,092	1,092	1,092	1,092	1,092	1,092	1,092	1,092	1,092	1,092	1,092	1,092	20,285	
915-Injuries and Damages Load	1,565	249	249	249	249	249	249	249	249	249	249	249	249	4,550	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	1,645	0	0	0	0	0	0	0	0	0	352	157,907	45,514	205,419	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	65,991	154	154	154	154	6,002	5,428	6,919	24,579	19,180	17,524	84,742	56,071	287,051	
926-A and G Loads	33,873	134	134	134	134	7,358	6,650	8,491	30,307	23,638	21,592	104,625	69,208	306,280	
928-AFUDC Debt Reg	3,966	2,444	2,474	2,505	2,535	2,863	3,461	4,110	5,735	7,994	9,908	15,372	22,887	86,255	
929-AFUDC - Equity Regular	4,295	3,206	3,245	3,285	3,325	3,756	4,540	5,391	7,523	10,486	12,996	20,163	30,021	112,231	
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	934,652	11,592	11,662	11,732	11,803	240,633	219,641	279,284	971,795	766,459	706,652	3,498,307	2,285,130	9,949,343	
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	934,652	11,592	11,662	11,732	11,803	240,633	219,641	279,284	971,795	766,459	706,652	3,498,307	2,285,130	9,949,343	

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

Cost Year 03

Project	65009017	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	72,000	4,000	4,000	4,000	4,000	4,000	0	0	0	0	0	0	0	92,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	2,895,424	100,000	0	0	0	0	0	0	0	0	0	0	0	2,995,424
370-Outside Services	5,954,195	217,213	475,000	247,938	0	0	0	0	0	0	0	0	0	6,894,346
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	5,652	314	314	314	314	314	0	0	0	0	0	0	0	7,220
914-Pension and Benefits Load	20,285	1,092	1,092	1,092	1,092	1,092	0	0	0	0	0	0	0	25,743
915-Injuries and Damages Load	4,550	249	249	249	249	249	0	0	0	0	0	0	0	5,794
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	205,419	7,150	0	0	0	0	0	0	0	0	0	0	0	212,569
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	287,051	8,782	13,074	6,898	154	154	0	0	0	0	0	0	0	316,112
926-A and G Loads	306,280	10,793	16,094	8,465	134	134	0	0	0	0	0	0	0	341,901
928-AFUDC Debt Reg	86,255	26,439	27,693	28,847	29,349	29,511	0	0	0	0	0	0	0	228,094
929-AFUDC - Equity Regular	112,231	23,833	24,963	26,004	26,457	26,602	0	0	0	0	0	0	0	240,091
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	9,949,343	399,864	562,478	323,806	61,748	62,055	0	0	0	0	0	0	0	11,359,295
825-Clearings	0	0	0	0	0	-11,359,295	0	0	0	0	0	0	0	-11,359,295
Clr Sum	0	0	0	0	0	-11,359,295	0	0	0	0	0	0	0	-11,359,295
Proj Net	9,949,343	399,864	562,478	323,806	61,748	-11,297,240	0	0	0	0	0	0	0	0

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**Project No: 65009018 Guadalupe SVC \$36,589,007 \$0 \$36,589,007**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 3/1/2017 Estimated Completion Date 3/31/2018

List Interim In-Service Dates

Project Need Justification

In New Mexico, wind resources are concentrated in the eastern portion of the state. Several wind energy centers have already been developed in this area, including NMWEC (200 MW) and Aragonne Mesa (90 MW) both of these projects interconnected to PNM’s 216 mile 345 kV transmission line from BA 345 kV switching station (north of Albuquerque) to PNM’s Blackwater 345 kV Station (in the Clovis-Portales area of eastern New Mexico), known as the Eastern Interconnect Project (“EIP”). Two additional New Mexico wind farm projects have signed power purchase agreements with customers in California and have acquired or are in the process of acquiring transmission service from PNM. Pattern Energy Group, Inc. is developing the Broadview/Grady project, which will consist of 497 MW of generation that will interconnect to PNM’s Blackwater station near the Texas border. Avangrid (formally Iberdrola) is developing the El Cabo wind farm that will interconnect to PNM’s EIP line near Clines Corners. The project involves expanding the existing Guadalupe 345 kV station and installing an SVC voltage support device to provide sufficient system voltage support to transfer up to 1000 MW on the EIP line allowing PNM to partially fulfill pending request for transmission service up to that limit.

Project Alternatives

Federal Energy Regulatory Commission (FERC) policy dictates that PNM must provide transmission service to eligible customers, on a non-discriminatory basis, as long as the customer meets all necessary requirements. Once a valid application for transmission service is submitted, PNM will complete a study process that determines the most appropriate facilities needed to provide the transmission service. The study process also determines the impacts to the transmission system caused by transmission service and any system reinforcements or upgrades needed to remedy such impacts. Under the procedures, PNM is required to use due diligence to provide the transmission service and will construct, own and operate the transmission facilities required to provide the transmission service.

Technical Aspects

PNM will construct and install a SVC voltage support device at Guadalupe 345 kV Station. The project scope includes the SVC and expansion of the Guadalupe Station by installing one additional 345 kV breaker. Based on technical study results, the operational range required (i.e., the capability to produce or absorb reactive power) for the SVC is -100 (reactive) Mvar to +250 (capacitive) MVar. Through the project, PNM will maintain and enhance system reliability by installing equipment necessary to comply with various North American Electric Reliability Corporation (NERC) and Western Electricity Coordination Council (WECC)

requirements and reliability standards. Specifically, PNM will continue to comply with the NERC and WECC reliability standards including NERC TPL-001-4 planning standards that require the transmission system to be designed to insure the transmission grid maintains acceptable system performance. The Project will also allow PNM to comply with the NERC TOP-002 standard, which requires that Transmission Operators shall not operate outside any System Operating Limit ("SOL") and Interconnection Reliability Operating Limit ("IROL").

#### Project Estimate Approach

This project was estimated based on the standard procedure used by System Engineering. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For the SVC, an identical design and estimate was used from the Rio Puerco SVC. For major equipment (i.e., breakers) PNM contacted an alliance vendor (HVB) and requested information regarding the costs and schedules of these major items. Labor and contractor estimates were created from past projects that are similar in nature. All overhead costs are standard and calculated using the approved corporate software.

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

Cost Year 01

Project	65009018	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	43,195		5,000	5,000	5,000	5,000	5,000	5,000	73,195		
	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	2,095,142		0	0	0	0	0	0	2,095,142		
	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	2,223		0	0	0	0	0	0	2,223		
	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	3,785		394	394	394	394	394	394	6,146		
	914-Pension and Benefits Load	13,678		1,497	1,497	1,497	1,497	1,497	1,497	22,660		
	915-Injuries and Damages Load	3,292		326	326	326	326	326	326	5,248		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	12,990		0	0	0	0	0	0	12,990		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	95,318		577	577	577	577	577	577	98,782		
	926-A and G Loads	85,388		208	208	208	208	208	208	86,636		
	928-AFUDC Debt Reg	15,971		5,392	5,435	5,479	5,522	5,566	5,610	48,976		
	929-AFUDC - Equity Regular	8,133		5,839	5,886	5,933	5,981	6,028	6,076	43,875		
	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	2,379,115		19,233	19,323	19,414	19,505	19,596	19,688	2,495,873		
	825-Clearings	0		0	0	0	0	0	0	0		
	Clr Sum	0		0	0	0	0	0	0	0		
Proj Net		2,379,115		19,233	19,323	19,414	19,505	19,596	19,688	2,495,873		

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

Cost Year 02

Project	65009018	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	73,195	218,682	218,682	218,682	218,682	218,682	218,682	218,682	218,682	218,682	218,682	218,682	218,682	2,697,379
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	160,941	160,941	160,941	180,941	180,941	180,941	180,941	180,941	180,941	180,941	180,941	180,941	2,111,292
370-Outside Services	2,095,142	5,035,781	160,000	160,000	3,776,835	160,000	160,000	3,776,835	160,000	160,000	3,021,468	160,000	2,517,890	21,343,951
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	2,223	0	0	0	0	0	0	0	0	0	0	0	0	2,223
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	6,146	17,145	17,145	17,145	17,145	17,145	17,145	17,145	17,145	17,145	17,145	17,145	17,145	211,882
914-Pension and Benefits Load	22,660	59,678	59,678	59,678	59,678	59,678	59,678	59,678	59,678	59,678	59,678	59,678	59,678	738,800
915-Injuries and Damages Load	5,248	13,602	13,602	13,602	13,602	13,602	13,602	13,602	13,602	13,602	13,602	13,602	13,602	168,473
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	12,990	11,507	11,507	11,507	12,937	12,937	12,937	12,937	12,937	12,937	12,937	12,937	12,937	163,947
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	98,782	149,759	17,137	17,137	116,059	17,681	17,681	116,059	17,681	17,681	95,513	17,681	81,816	780,669
926-A and G Loads	86,636	181,958	18,131	18,131	140,329	18,803	18,803	140,329	18,803	18,803	114,949	18,803	98,028	892,508
928-AFUDC Debt Reg	48,976	14,152	22,743	24,644	31,587	38,601	40,657	47,726	54,837	56,991	48,552	54,624	60,037	544,129
929-AFUDC - Equity Regular	43,875	18,563	29,831	32,325	41,432	50,632	53,329	62,601	71,929	74,753	63,685	71,649	78,748	693,353
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	2,495,873	5,881,768	729,398	733,793	4,609,228	788,703	793,456	4,646,535	826,236	831,214	3,847,152	825,744	3,339,505	30,348,606
825-Clearings	0	0	0	0	0	0	0	0	0	-5,586,288	0	0	0	-5,586,288
Clr Sum	0	0	0	0	0	0	0	0	0	-5,586,288	0	0	0	-5,586,288
Proj Net	2,495,873	5,881,768	729,398	733,793	4,609,228	788,703	793,456	4,646,535	826,236	-4,755,074	3,847,152	825,744	3,339,505	24,762,317

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

Cost Year 03

Project	65009018	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	2,697,379	75,000	75,000	0	0	0	0	0	0	0	0	0	0	2,847,379	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	2,111,292	110,941	110,941	0	0	0	0	0	0	0	0	0	0	2,333,174	
370-Outside Services	21,343,951	0	5,035,781	0	0	0	0	0	0	0	0	0	0	26,379,732	
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	2,223	0	0	0	0	0	0	0	0	0	0	0	0	2,223	
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	211,882	5,880	5,880	0	0	0	0	0	0	0	0	0	0	223,642	
914-Pension and Benefits Load	738,800	20,468	20,468	0	0	0	0	0	0	0	0	0	0	779,735	
915-Injuries and Damages Load	168,473	4,665	4,665	0	0	0	0	0	0	0	0	0	0	177,803	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	163,947	7,932	7,932	0	0	0	0	0	0	0	0	0	0	179,812	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	780,669	5,901	142,874	0	0	0	0	0	0	0	0	0	0	929,445	
926-A and G Loads	892,508	6,248	175,450	0	0	0	0	0	0	0	0	0	0	1,074,205	
928-AFUDC Debt Reg	544,129	65,000	72,917	80,564	0	0	0	0	0	0	0	0	0	762,609	
929-AFUDC - Equity Regular	693,353	58,594	65,730	72,624	0	0	0	0	0	0	0	0	0	890,301	
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	30,348,606	360,628	5,717,638	153,187	0	0	0	0	0	0	0	0	0	36,580,059	
825-Clearings	-5,586,288	0	0	-31,002,719	0	0	0	0	0	0	0	0	0	-36,589,007	
Clr Sum	-5,586,288	0	0	-31,002,719	0	0	0	0	0	0	0	0	0	-36,589,007	
Proj Net	24,762,317	360,628	5,717,638	-30,849,532	0	0	0	0	0	0	0	0	0	-8,949	

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**Project No: 65009117 Clines Corners     \$15,212,147     \$0     \$15,212,147**

Company:     002-Transmission Services  
Location:     650 Transmission

Project Information

Construction Start Date                      8/8/2016                      Estimated Completion Date                      5/31/2017  
List Interim In-Service Dates  
Project Need Justification

This project is to complete the construction of a new 345kV switching station (“Cline Corners”) with a three-breaker ring configuration and other associated facilities. This project is in association with the interconnection of the Avangrid (formally Iberdrola Renewables, LLC) wind-powered electric generation facility to the PNM transmission system on PNM’s Blackwater-BA 345 kV transmission line (“BB Line”).In compliance with PNM’s Federal Energy Regulatory Commission (“FERC”) approved Open Access Transmission Tariff (“OATT”), and requirements under the Large Generator Interconnection Procedures (“LGIP”) of the OATT, the purpose of the project is to complete the necessary transmission system enhancements, including any required network updates, to facilitate the interconnection of the wind generating facility to the PNM transmission system.

Project Alternatives

FERC policy dictates that PNM must provide transmission interconnection service to eligible customers, on a non-discriminatory basis, as long as the interconnector meets all necessary requirements. Once a valid application for transmission interconnection is submitted, PNM will complete a study process that determines the most appropriate facilities needed to interconnect the transmission project to the transmission system. The study process also determines the impacts to the transmission system caused by the interconnection of the project and any system reinforcements or upgrades needed to remedy such impacts. Under the procedures, PNM is required to use due diligence to implement the interconnection and will construct, own and operate the transmission facilities required to interconnect the customer's transmission facility or project to the PNM transmission system.

Technical Aspects

The facilities which PNM will construct and install are required to interconnect Avangrid’s purposed wind generating facility to PNM’s transmission system. These facilities include a new 345 kV switching station on PNM’s BB Line and the project encompasses all engineering and design costs, all grading and drainage work, security fencing, conduits, connections and station gravel to accommodate an estimated 3-345 kV breakers, nine disconnect switches, none coupling capacitor voltage transformers (“CCVT’s”), nine surge arrestors three A-frame dead ends, one control building, and all necessary foundations and support for the equipment listed.Pursuant to the previsions of the LGIA between PNM and Avangrid, PNM has secured/acquired the necessary land and rights-of-way from the new 345 kV switching station and all work to be performed on the land and easements has been dedicated through the State Land Office and secured by Avangrid through a long term lease at no cost to PNM. Additionally, these facilities will all be constructed to PNM standards and specifications, and PNM will

own and operate the new 345 kV switching station upon commercial operation of the wind generating facility. Through the Project, PNM will maintain and enhance system reliability by installing equipment necessary to comply with various North American Electric Reliability Corporation (NERC) and Western Electricity Coordination Council (WECC) requirements and reliability standards. Specifically, PNM will continue to comply with the NERC and WECC reliability standards including NERC TPL-001-4 planning standards that require the transmission system to be designed to insure the transmission grid maintains acceptable system performance. The Project will also allow PNM to comply with the NERC TOP-002 standard, which requires that Transmission Operators shall not operate outside any System Operating Limit ("SOL") and Interconnection Reliability Operating Limit ("IROL").

#### Project Estimate Approach

Budgetary estimate was the result of preparation by internal and external engineering resources with material cost estimates obtained by our sourcing group as needed. The project was part of a group of 6 larger station projects that went through a rigorous RFI (Request for Information), and RFQ (Request for Quotation) process, with teams of reviewers were established for engineering, EPC (Engineer, Procure, Construct), and construction, and criteria was established to review more than a dozen firms. Through this grading and review process that included multiple rounds of review, and interview, two EPC firms were down-selected. At that point a 30% engineering design was prepared for the firms to bid from, and a hard bid was solicited. The lowest bidder was selected.

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

Cost Year 01

Project	65009117	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	9,287		4,500	4,150	4,150	6,150	6,150	6,150	40,537		
	120-Overtime-General	0		0	0	0	0	0	0	0		
	350-Material Issues-Major	0		0	45,440	0	4,480	0	0	49,920		
	370-Outside Services	1,571,654		663,703	852,521	1,186,491	1,515,913	841,740	560,836	7,192,858		
	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	845		354	327	327	484	484	484	3,305		
	914-Pension and Benefits Load	3,216		1,347	1,243	1,243	1,841	1,841	1,841	12,572		
	915-Injuries and Damages Load	700		293	271	271	401	401	401	2,738		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	5,001		0	1,645	0	162	0	0	6,808		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	98,040		53,616	72,316	95,398	122,342	68,049	45,577	555,339		
	926-A and G Loads	65,828		27,797	37,528	49,531	63,504	35,272	23,587	303,046		
	928-AFUDC Debt Reg	5,385		4,824	6,838	9,522	13,007	16,076	17,947	73,601		
	929-AFUDC - Equity Regular	2,446		5,224	7,406	10,312	14,086	17,410	19,436	76,321		
	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	1,762,404		761,660	1,029,684	1,357,244	1,742,371	987,424	676,259	8,317,045		
	825-Clearings	0		0	0	0	0	0	0	0		
	Clr Sum	0		0	0	0	0	0	0	0		
Proj Net		1,762,404		761,660	1,029,684	1,357,244	1,742,371	987,424	676,259	8,317,045		

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

Cost Year 02

Project	65009117	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	40,537	7,550	7,550	7,550	7,550	0	0	0	0	0	0	0	0	70,737
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	49,920	2,007,722	183,602	606,601	0	0	0	0	0	0	0	0	0	2,847,845
	370-Outside Services	7,192,858	1,452,498	936,175	648,371	49,500	0	0	0	0	0	0	0	0	10,279,402
	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	3,305	592	592	592	592	0	0	0	0	0	0	0	0	5,672
	914-Pension and Benefits Load	12,572	2,060	2,060	2,060	2,060	0	0	0	0	0	0	0	0	20,814
	915-Injuries and Damages Load	2,738	470	470	470	470	0	0	0	0	0	0	0	0	4,616
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	6,808	143,552	13,128	43,372	0	0	0	0	0	0	0	0	0	206,860
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	555,339	94,408	30,748	34,426	1,637	0	0	0	0	0	0	0	0	716,557
	926-A and G Loads	303,046	116,517	37,878	42,421	1,917	0	0	0	0	0	0	0	0	501,779
	928-AFUDC Debt Reg	73,601	26,671	33,397	36,985	39,097	39,415	0	0	0	0	0	0	0	249,165
	929-AFUDC - Equity Regular	76,321	34,983	43,806	48,512	51,282	51,700	0	0	0	0	0	0	0	306,604
	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	8,317,045	3,887,024	1,289,406	1,471,358	154,104	91,115	0	0	0	0	0	0	0	15,210,052
	825-Clearings	0	0	0	0	0	-15,212,147	0	0	0	0	0	0	0	-15,212,147
	Clr Sum	0	0	0	0	0	-15,212,147	0	0	0	0	0	0	0	-15,212,147
Proj Net		8,317,045	3,887,024	1,289,406	1,471,358	154,104	-15,121,032	0	0	0	0	0	0	0	-2,095

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

Cost Year 03

Project	65009117	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	70,737	0	0	0	0	0	0	0	0	0	0	0	0	70,737
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	2,847,845	0	0	0	0	0	0	0	0	0	0	0	0	2,847,845
	370-Outside Services	10,279,402	0	0	0	0	0	0	0	0	0	0	0	0	10,279,402
	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	5,672	0	0	0	0	0	0	0	0	0	0	0	0	5,672
	914-Pension and Benefits Load	20,814	0	0	0	0	0	0	0	0	0	0	0	0	20,814
	915-Injuries and Damages Load	4,616	0	0	0	0	0	0	0	0	0	0	0	0	4,616
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	206,860	0	0	0	0	0	0	0	0	0	0	0	0	206,860
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	716,557	0	0	0	0	0	0	0	0	0	0	0	0	716,557
	926-A and G Loads	501,779	0	0	0	0	0	0	0	0	0	0	0	0	501,779
	928-AFUDC Debt Reg	249,165	0	0	0	0	0	0	0	0	0	0	0	0	249,165
	929-AFUDC - Equity Regular	306,604	0	0	0	0	0	0	0	0	0	0	0	0	306,604
	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	15,210,052	0	0	0	0	0	0	0	0	0	0	0	0	15,210,052
	825-Clearings	-15,212,147	0	0	0	0	0	0	0	0	0	0	0	0	-15,212,147
	Clr Sum	-15,212,147	0	0	0	0	0	0	0	0	0	0	0	0	-15,212,147
	Proj Net	-2,095	0	0	0	0	0	0	0	0	0	0	0	0	-2,095

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**Project No: 65009214 Sandia 345/115kV Spare Transformer**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date 9/14/2015 Estimated Completion Date 10/31/2019

List Interim In-Service Dates  
none

Project Need Justification

This purpose of this project is to improve reliability by purchasing transformers to ensure they are on-hand in the case of a catastrophic failure that necessitates the need for a replacement. Several 345/115 kV transformers on the PNM system are over 30 years old. Both the original West Mesa and Sandia transformers have had tap change problems and the loss of either of these transformers would put the system at a reliability risk for several months. Furthermore, if a catastrophic failure of these transformers were to occur, damage to adjacent equipment could further exasperate the contingency condition. While the transformers are well maintained, there is never certainty on the health of the units.

Project Alternatives

The alternative would be to continue with current equipment and no spares, which poses a reliability risk since the timeline for purchasing, receiving, and installing a new transformer can be anywhere between 18 to 24 months.

Technical Aspects

Each location on PNM’s transmission system presents its own unique issues for a failure of a bulk transformer. However, there are some general concerns apply to most locations: 1) In most locations, PNM would anticipate the need to operate load-side generating resources out of economic order for an extended period of time while a replacement transfer is ordered, delivered and installed. If a spare transformer is available, the period for operating such generation would be significantly reduced.2) If the failure is in a location remote from any generation on the load-side of the autotransformer, PNM and any third-party users of PNM’s transmission can be directed to curtail or trip load to meeting operating performance criteria.3) With a transformer out of service, the outage of an additional transformer or transmission line would leave the system with insufficient capacity to serve peak demand requiring substantial additional commitment of load-side resources out of economic order and load curtailments over peak hours. As part of the Edison Electric Institute (“EEI”), a group of transmission owners have signed an agreement to establish the Spare Transformer Equipment Program (“STEP”). PNM participate in this program for the 345/115 kV autotransformer class. STEP is a coordinated, industry-wide effort to assure that spare transformer capacity can be made available, if needed, to participating utilities following a triggering event of one of more coordinated acts of deliberate terrorism, as defined in the Homeland Securities Act, resulting in both the destruction or long-term disabling of electric transmission station(s) and a declaration of a state of emergency by the President pursuant to the Nation Emergencies Act. For a triggering event, the STEP participating utility can request from other STEP utilities their spare transformer(s) after taking all action necessary to use all its spare transformer first. The STEP participation commits PNM to maintain adequate spare transformer capacity based on a

defined industry-wide worst case scenario and specifies related to each participating utility's size, existing transformer capacity, and PNM's needs. This spare transformer will be used to meet the requirements of PNM's obligation under the STEP program as well as provide needed support to the PNM system.

#### Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment like transformers and circuit breakers we contacted our alliance vendors (SPX/Waukesha, HVB or Siemens respectively) and requested information regarding the costs and schedules of these major items. Labor and contractor estimates were created from past projects that are similar in nature, for this project past Switching Stations (Ojo and Rio Puerco) were referenced. The estimate for this project was broken down by the following percentages. Internal labor including engineering, Project Management, Construction Management and station crews contribute to 4% of the project spend. Station material and equipment are 64% of the project total with 16% for installation of this material and station construction. Company loads and allowance for funds used during construction contribute to the final 16% of the spend.

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

Cost Year 01

Project	65009214	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	99,767		6,500	6,500	6,500	6,500	6,500	6,500	138,767		
	120-Overtime-General	16,634		0	0	0	0	0	0	16,634		
	350-Material Issues-Major	0		25,000	50,000	0	0	0	0	75,000		
	370-Outside Services	4,038,789		0	0	0	0	0	0	4,038,789		
	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	8,617		0	0	0	0	0	0	8,617		
	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	-5,409	-5,409	-5,409	-16,227		
	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	9,885		512	512	512	512	512	512	12,954		
	914-Pension and Benefits Load	35,804		1,946	1,946	1,946	1,946	1,946	1,946	47,481		
	915-Injuries and Damages Load	8,744		424	424	424	424	424	424	11,287		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	26,966		905	1,810	0	0	0	0	29,681		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	156,087		2,751	4,751	751	751	751	751	166,590		
	926-A and G Loads	183,964		1,310	2,350	270	270	270	270	188,706		
	928-AFUDC Debt Reg	92,971		2,335	2,467	2,567	2,597	2,620	2,644	108,201		
	929-AFUDC - Equity Regular	112,928		2,529	2,672	2,780	2,812	2,838	2,863	129,422		
	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	4,791,157		44,211	73,431	15,750	10,402	10,451	10,500	4,955,903		
	825-Clearings	-3,829,452		0	0	0	0	0	0	-3,829,452		
	Clr Sum	-3,829,452		0	0	0	0	0	0	-3,829,452		
Proj Net		961,705		44,211	73,431	15,750	10,402	10,451	10,500	1,126,451		

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

Cost Year 02

Project	65009214	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	138,767	0	0	0	0	0	0	0	0	0	0	0	0	138,767	
120-Overtime-General	16,634	0	0	0	0	0	0	0	0	0	0	0	0	16,634	
350-Material Issues-Major	75,000	0	0	0	0	0	0	0	0	0	0	0	0	75,000	
370-Outside Services	4,038,789	0	0	0	0	0	0	0	0	0	0	0	0	4,038,789	
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	8,617	0	0	0	0	0	0	0	0	0	0	0	0	8,617	
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	-16,227	-6,937	0	0	0	0	0	0	0	0	0	0	0	-23,164	
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	12,954	0	0	0	0	0	0	0	0	0	0	0	0	12,954	
914-Pension and Benefits Load	47,481	0	0	0	0	0	0	0	0	0	0	0	0	47,481	
915-Injuries and Damages Load	11,287	0	0	0	0	0	0	0	0	0	0	0	0	11,287	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	29,681	0	0	0	0	0	0	0	0	0	0	0	0	29,681	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	166,590	0	0	0	0	0	0	0	0	0	0	0	0	166,590	
926-A and G Loads	188,706	0	0	0	0	0	0	0	0	0	0	0	0	188,706	
928-AFUDC Debt Reg	108,201	3,069	0	0	0	0	0	0	0	0	0	0	0	111,270	
929-AFUDC - Equity Regular	129,422	4,026	0	0	0	0	0	0	0	0	0	0	0	133,448	
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	4,955,903	158	0	0	0	0	0	0	0	0	0	0	0	4,956,061	
825-Clearings	-3,829,452	-1,181,082	0	0	0	0	0	0	0	0	0	0	0	-5,010,535	
Clr Sum	-3,829,452	-1,181,082	0	0	0	0	0	0	0	0	0	0	0	-5,010,535	
Proj Net	1,126,451	-1,180,924	0	0	0	0	0	0	0	0	0	0	0	-54,474	

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

Cost Year 03

Project	65009214	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	138,767	0	0	0	0	0	0	0	0	0	0	0	0	138,767
	120-Overtime-General	16,634	0	0	0	0	0	0	0	0	0	0	0	0	16,634
	350-Material Issues-Major	75,000	0	0	0	0	0	0	0	0	0	0	0	0	75,000
	370-Outside Services	4,038,789	0	0	0	0	0	0	0	0	0	0	0	0	4,038,789
	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	8,617	0	0	0	0	0	0	0	0	0	0	0	0	8,617
	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	-23,164	0	0	0	0	0	0	0	0	0	0	0	0	-23,164
	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	12,954	0	0	0	0	0	0	0	0	0	0	0	0	12,954
	914-Pension and Benefits Load	47,481	0	0	0	0	0	0	0	0	0	0	0	0	47,481
	915-Injuries and Damages Load	11,287	0	0	0	0	0	0	0	0	0	0	0	0	11,287
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	29,681	0	0	0	0	0	0	0	0	0	0	0	0	29,681
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	166,590	0	0	0	0	0	0	0	0	0	0	0	0	166,590
	926-A and G Loads	188,706	0	0	0	0	0	0	0	0	0	0	0	0	188,706
	928-AFUDC Debt Reg	111,270	0	0	0	0	0	0	0	0	0	0	0	0	111,270
	929-AFUDC - Equity Regular	133,448	0	0	0	0	0	0	0	0	0	0	0	0	133,448
	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	4,956,061	0	0	0	0	0	0	0	0	0	0	0	0	4,956,061
	825-Clearings	-5,010,535	0	0	0	0	0	0	0	0	0	0	0	0	-5,010,535
	Clr Sum	-5,010,535	0	0	0	0	0	0	0	0	0	0	0	0	-5,010,535
	Proj Net	-54,474	0	0	0	0	0	0	0	0	0	0	0	0	-54,474

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***Project No: 65028015 Land Management System***

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

Construction Start Date                      7/31/2015                      Estimated Completion Date                      10/31/2017

List Interim In-Service Dates  
N/A

Project Need Justification

The purpose of this project is to implement an electronic database-driven records management system to enable accurate and quick location of land records and queries for key information. This project reduces the need for sorting through paper records, and reduces the potential for expired rights, trespass, missed lease payments, and lack of awareness of specific property access requirements. Issues such as expired rights and trespass can result in an inability to operate and maintain the transmission system, or significant cost increases to restore rights. Some paper records are fragile and implementation of the system will eliminate wear and tear on the original documents. An additional benefit of an electronic system is that data can be made available to many company employees and customers with minimal lag time. The funding requested for this project covers internal labor, local scanning of documents, software purchase with contractor support that includes configuration for PNM's specific needs for the hardware to support the application.

Project Alternatives

There are no alternatives to this software. To rely on paper records would mean to accept inherent security risks. Additionally, users of land records, such as area offices, must continue to rely on Albuquerque-based personnel to perform research. The "as-is" paper process is not a reliable approach moving forward. It is preferred to implement a electronic land management records system to address current records management issues, improve efficiency, and lessen risks.

Technical Aspects

PNM is seeking to purchase a commercially available software package that is specifically tailored to PNM's land information and land rights management obligations. Additionally, the project requires external implementation support which includes developing key data requirements for profiling, placing records into electronic format, attaching geo-spatial attributes to allow files to be tied to the Geographic Information System (GIS), and the purchase of servers and related hardware.

Project Estimate Approach

The contractor provided a proposal based on time and materials. The project scope and scale will required contract work through December 2017. The schedule could be accelerated based on availability of contract resources.



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

Cost Year 01

Project	65028015	Year	2016									
	Cost Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	65,974		10,000	10,000	10,000	10,000	10,000	10,000	125,974		
	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	198,117		0	20,000	100,000	100,000	100,000	50,000	568,117		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	88,528		5,000	5,000	5,000	5,000	5,000	5,000	118,528		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	5,346		0	0	0	0	0	0	5,346		
	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	18,658		78	220	268	815	1,319	1,796	23,153		
	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	5,836		787	787	787	787	787	787	10,558		
	914-Pension and Benefits Load	21,367		2,994	2,994	2,994	2,994	2,994	2,994	39,331		
	915-Injuries and Damages Load	5,015		652	652	652	652	652	652	8,927		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	2,943		0	0	0	0	0	0	2,943		
	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	45,338		1,248	2,912	9,568	9,568	9,568	5,408	83,610		
	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	457,122		20,759	42,565	129,269	129,816	130,320	76,637	986,488		
	825-Clearings	-640,902		0	-70,296	0	0	0	0	-711,198		
	Clr Sum	-640,902		0	-70,296	0	0	0	0	-711,198		
Proj Net		-183,780		20,759	-27,731	129,269	129,816	130,320	76,637	275,289		

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

Cost Year 02

Project	65028015	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	125,974	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0	0	145,974
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	10,000	10,000	100,000	10,000	10,000	100,000	10,000	10,000	100,000	17,000	0	0	377,000
370-Outside Services	568,117	0	0	157,019	0	0	157,019	0	0	157,017	0	0	0	1,039,172
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	118,528	0	0	0	0	0	0	0	0	0	0	0	0	118,528
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	5,346	0	0	0	0	0	0	0	0	0	0	0	0	5,346
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	23,153	2,013	1,886	2,738	3,292	3,482	3,978	4,757	4,860	5,360	6,230	0	0	61,749
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	10,558	157	157	157	157	157	157	157	157	157	157	0	0	12,126
914-Pension and Benefits Load	39,331	546	546	546	546	546	546	546	546	546	546	0	0	44,789
915-Injuries and Damages Load	8,927	124	124	124	124	124	124	124	124	124	124	0	0	10,171
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	2,943	715	715	7,150	715	715	7,150	715	715	7,150	1,216	0	0	29,899
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	83,610	806	806	17,406	806	806	17,406	806	806	17,406	1,277	0	0	141,943
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	986,488	16,362	16,234	287,140	17,640	17,831	288,380	19,105	19,208	289,760	28,550	0	0	1,986,697
825-Clearings	-711,198	0	0	0	0	0	0	0	0	0	-1,466,251	0	0	-2,177,449
Clr Sum	-711,198	0	0	0	0	0	0	0	0	0	-1,466,251	0	0	-2,177,449
Proj Net	275,289	16,362	16,234	287,140	17,640	17,831	288,380	19,105	19,208	289,760	-1,437,701	0	0	-190,752

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

Cost Year 03

Project	65028015	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	145,974	0	0	0	0	0	0	0	0	0	0	0	0	145,974
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	377,000	0	0	0	0	0	0	0	0	0	0	0	0	377,000
	370-Outside Services	1,039,172	0	0	0	0	0	0	0	0	0	0	0	0	1,039,172
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	118,528	0	0	0	0	0	0	0	0	0	0	0	0	118,528
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	5,346	0	0	0	0	0	0	0	0	0	0	0	0	5,346
	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	61,749	0	0	0	0	0	0	0	0	0	0	0	0	61,749
	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	12,126	0	0	0	0	0	0	0	0	0	0	0	0	12,126
	914-Pension and Benefits Load	44,789	0	0	0	0	0	0	0	0	0	0	0	0	44,789
	915-Injuries and Damages Load	10,171	0	0	0	0	0	0	0	0	0	0	0	0	10,171
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	29,899	0	0	0	0	0	0	0	0	0	0	0	0	29,899
	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	141,943	0	0	0	0	0	0	0	0	0	0	0	0	141,943
	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	1,986,697	0	0	0	0	0	0	0	0	0	0	0	0	1,986,697
	825-Clearings	-2,177,449	0	0	0	0	0	0	0	0	0	0	0	0	-2,177,449
	Clr Sum	-2,177,449	0	0	0	0	0	0	0	0	0	0	0	0	-2,177,449
Proj Net		-190,752	0	0	0	0	0	0	0	0	0	0	0	0	-190,752

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***Project No: 65030517 Power Operations Building Expansion***

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

<u>Construction Start Date</u>	3/1/2017	<u>Estimated Completion Date</u>	12/31/2018
<u>List Interim In-Service Dates</u>	N/A		

Project Need Justification

This project is meant to establish control room space for Distribution Operations Center (DOC), giving it the ability to serve as a primary distribution operations control room. In addition, this will enable the expansion of the existing Power Operations server room footprint and the training area, improving overall capabilities. Other work will provide general improvements to flooring, ceilings, restrooms and facilities that are worn and outdated.

Project Alternatives

Failure to make needed improvements to items in this facility will result in less efficient use of the space and sub-standard back-up capabilities for critical functions (i.e., back-up Distribution Operations Center). Also, the existing server room is small and cannot accommodate any further hardware, which will become critical when expanding/upgrading hardware. Most any future improvements like this will be required by Critical Infrastructure Protection (CIP) regulations.

Technical Aspects

This will be a two-phase project. The 2017 assessment phase will allow proper evaluation of space and resources (i.e., IT resources, building square footage needs, training requirements, and architectural/engineering support, etc.). Collectively, this information will be used to identify all project costs, resources and time-lines.

Project Estimate Approach

The estimated cost for the Power Operations Building Expansion is based on assessed operational needs, architectural design, civil and structural engineering support and overall construction of the proposed build. The assessment phase will allow PNM to work with contracted construction and design firms to develop the scope and specifications of this project, including renovation, materials and labor, project management support and related administrative processes (i.e., permitting, mechanical, engineering and plumbing (MEP) specifications and drawings. Based on previous and similar projects of this magnitude, and work with internal and external representatives, estimates were calculated to establish the overall costs.

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

Cost Year 01

Project	65030517	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	65030517	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
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	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	144,000
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	157	157	157	157	157	157	157	157	157	157	157	157	1,882
914-Pension and Benefits Load	0	546	546	546	546	546	546	546	546	546	546	546	546	6,550
915-Injuries and Damages Load	0	124	124	124	124	124	124	124	124	124	124	124	124	1,493
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	941	941	941	941	941	941	941	941	941	941	941	941	11,290
928-AFUDC Debt Reg	0	21	62	103	145	187	229	272	314	357	401	444	488	3,023
929-AFUDC - Equity Regular	0	27	81	135	190	245	301	356	412	469	526	583	640	3,965
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	15,815	15,911	16,006	16,103	16,200	16,298	16,396	16,495	16,594	16,694	16,795	16,896	196,201
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	15,815	15,911	16,006	16,103	16,200	16,298	16,396	16,495	16,594	16,694	16,795	16,896	196,201

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

Cost Year 03

Project	65030517	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	24,000	5,000	5,000	5,000	5,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	5,000	119,000
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	144,000	20,000	32,000	20,000	40,000	150,000	150,000	150,000	150,000	200,000	200,000	60,000	17,500	1,333,500
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	1,882	392	392	392	392	784	784	784	784	784	784	784	392	9,330
914-Pension and Benefits Load	6,550	1,365	1,365	1,365	1,365	2,729	2,729	2,729	2,729	2,729	2,729	2,729	1,365	32,475
915-Injuries and Damages Load	1,493	311	311	311	311	622	622	622	622	622	622	622	311	7,402
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	11,290	1,680	2,486	1,680	3,024	10,752	10,752	10,752	10,752	14,112	14,112	4,704	1,512	97,608
928-AFUDC Debt Reg	3,023	550	644	739	846	1,144	1,606	2,071	2,538	3,077	3,688	4,108	4,265	28,301
929-AFUDC - Equity Regular	3,965	496	581	667	763	1,031	1,448	1,867	2,288	2,774	3,325	3,703	3,845	26,752
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	196,201	29,793	42,779	30,154	51,700	177,062	177,942	178,825	179,713	234,098	235,260	86,650	34,189	1,654,367
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-1,654,367	-1,654,367
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-1,654,367	-1,654,367
Proj Net	196,201	29,793	42,779	30,154	51,700	177,062	177,942	178,825	179,713	234,098	235,260	86,650	-1,620,178	0

**Project No: 65034614 Transmission Battery Replacement**

Company: 002-Transmission Services  
Location: 650 Transmission

Project Information

<u>Construction Start Date</u>	8/7/2014	<u>Estimated Completion Date</u>	8/31/2017
<u>List Interim In-Service Dates</u>	N/A		

Project Need Justification

This project will complete replacements of the 48 Volts - Direct Current (Vdc) Battery (both charger and rectifier systems) serving Power Operations and relay station communication sites on the San Juan Microwave System with a new commercial. This new system will provide 48 Vdc to the Power Operation Communication Center and is designed to provide continuous 48 Vdc power to the center for 8 to 10 hours in the event of a power outage. The current 48 Vdc battery system serving Power Operations is operating at capacity and will not support the anticipated load growth from equipment scheduled for installation between 2015-2016. The primary increase in load is a result of the installation of the Plateau Infinera DWDM (dense wavelength division multiplexing) equipment. This equipment will allow high speed connections from Power Operations facilities to switching stations not connected to the PNM fiber or microwave radio system. This project is required to maintain reliable communications to PNM's Primary Control Center and provide 48 Vdc service to the relay sites. It is absolutely critical to maintain sufficient and reliable 48 Vdc system at these sites. The loss of a 48 Vdc system would result in the loss of communication coverage serving or passing through these locations. At Power Operations, the loss of the 48 Vdc system would result on the loss of control and monitoring for all of PNM's critical transmission and station assets. The loss of the relay site DC (direct current) systems would result in the loss of SCADA along all of San Juan microwave switching stations and potentially impact communications to the San Juan Generating Station.

Project Alternatives

There is no alternative to the proposed 48 Vdc systems. The existing 48 Vdc systems cannot not be upgraded to support the capacity required for the transport equipment that delivers regional SCADA data to the control center. Since the communication equipment in the Operation Center currently operates from 48 Vdc service, the same type of system must replace it. The new replacement 48 Vdc system is designed to support the center's needs for the next 10 to 15 years.

Technical Aspects

This equipment will be installed at Power Operations to drop the 2.5 wavelengths that support and connect the OC48 rings serving PNM's switching stations and power plants. Additionally, the instillation of the Infinera equipment will allow complete dual path drops for PNM's SCADA network at power operations and the PNM backup control center. In addition, the relay site battery system is necessary to provide a 48 Vdc service for the planned San Juan microwave system.

Project Estimate Approach

Cost estimates for this project relied on quotes collected from suppliers and estimates provided by contractors. The sum of these items were added to comprise total costs for installation. Allocations for man-hours were estimated for cutover to the new systems and then added to this value to come up with total project costs on a station by station basis.



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

Cost Year 01

Project	65034614	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General		12,286		2,500	2,500	5,000	5,000	0	0	27,286		
120-Overtime-General		1,735		0	0	0	0	0	0	1,735		
350-Material Issues-Major		23,602		5,000	15,000	0	0	0	0	43,602		
370-Outside Services		43,978		10,000	10,000	10,000	135,000	135,000	135,000	478,978		
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		315		0	0	0	0	0	0	315		
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	-644	-624	-644	-1,912		
426-Capitalized Interest		26,877		332	450	279	645	1,237	1,894	31,714		
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		1,199		197	197	394	394	0	0	2,380		
914-Pension and Benefits Load		4,221		749	749	1,497	1,497	0	0	8,712		
915-Injuries and Damages Load		1,067		163	163	326	326	0	0	2,045		
918-San Juan AR-Labor		0		0	0	0	0	0	0	0		
921-Stores / Purchasing Load		2,034		181	543	0	0	0	0	2,758		
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		28,965		1,456	2,288	1,248	11,648	11,232	11,232	68,069		
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		146,279		20,577	31,889	18,744	153,866	146,845	147,482	665,682		
825-Clearings		-350,082		0	-58,042	0	0	0	-262,489	-670,613		
Cir Sum		-350,082		0	-58,042	0	0	0	-262,489	-670,613		
Proj Net		-203,803		20,577	-26,153	18,744	153,866	146,845	-115,007	-4,932		

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

Cost Year 02

Project	65034614	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	27,286	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	0	0	0	0	67,286
120-Overtime-General	1,735	0	0	0	0	0	0	0	0	0	0	0	0	1,735
350-Material Issues-Major	43,602	15,000	15,000	15,000	17,000	15,000	0	0	0	0	0	0	0	120,602
370-Outside Services	478,978	10,000	10,000	10,000	10,000	10,000	10,000	10,000	0	0	0	0	0	548,978
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	315	0	0	0	0	0	0	0	0	0	0	0	0	315
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	-1,912	-651	-590	0	0	0	0	0	0	0	0	0	0	-3,153
426-Capitalized Interest	31,714	1,190	1,215	1,502	1,616	1,835	1,882	2,026	2,098	0	0	0	0	45,078
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	2,380	392	392	392	392	392	392	392	392	0	0	0	0	5,516
914-Pension and Benefits Load	8,712	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	0	0	0	0	19,628
915-Injuries and Damages Load	2,045	311	311	311	311	311	311	311	311	0	0	0	0	4,533
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	2,758	1,073	1,073	1,073	1,216	1,073	0	0	0	0	0	0	0	8,264
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	68,069	2,016	2,016	2,016	2,150	2,016	1,008	1,008	336	0	0	0	0	80,635
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	665,682	35,695	35,781	36,658	39,050	36,991	19,957	20,101	9,502	0	0	0	0	899,417
825-Clearings	-670,613	0	0	0	0	0	0	0	-496,225	0	0	0	0	-1,166,838
Clr Sum	-670,613	0	0	0	0	0	0	0	-496,225	0	0	0	0	-1,166,838
Proj Net	-4,932	35,695	35,781	36,658	39,050	36,991	19,957	20,101	-486,723	0	0	0	0	-267,421

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

Cost Year 03

Project	65034614	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	67,286	0	0	0	0	0	0	0	0	0	0	0	0	67,286	
120-Overtime-General	1,735	0	0	0	0	0	0	0	0	0	0	0	0	1,735	
350-Material Issues-Major	120,602	0	0	0	0	0	0	0	0	0	0	0	0	120,602	
370-Outside Services	548,978	0	0	0	0	0	0	0	0	0	0	0	0	548,978	
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	315	0	0	0	0	0	0	0	0	0	0	0	0	315	
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	-3,153	0	0	0	0	0	0	0	0	0	0	0	0	-3,153	
426-Capitalized Interest	45,078	0	0	0	0	0	0	0	0	0	0	0	0	45,078	
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	5,516	0	0	0	0	0	0	0	0	0	0	0	0	5,516	
914-Pension and Benefits Load	19,628	0	0	0	0	0	0	0	0	0	0	0	0	19,628	
915-Injuries and Damages Load	4,533	0	0	0	0	0	0	0	0	0	0	0	0	4,533	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	8,264	0	0	0	0	0	0	0	0	0	0	0	0	8,264	
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	80,635	0	0	0	0	0	0	0	0	0	0	0	0	80,635	
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 PNM D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	899,417	0	0	0	0	0	0	0	0	0	0	0	0	899,417	
825-Clearings	-1,166,838	0	0	0	0	0	0	0	0	0	0	0	0	-1,166,838	
Clr Sum	-1,166,838	0	0	0	0	0	0	0	0	0	0	0	0	-1,166,838	
Proj Net	-267,421	0	0	0	0	0	0	0	0	0	0	0	0	-267,421	

Distribution Tier 1 Capital Projects

# PNM Exhibit JRM-5

Is contained in the following 265 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 JRM-5-Distribution Tier 1 Capital Projects

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Total

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Project No:10000207 Line Extension - Commercial .....	\$7,697,116 ( ..... \$706,775)	..... \$7,697,116.....	10	
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Project No:15100707 ED System Improvements	\$1,189,362 (	\$35,685)	.....	\$1,189,362.....	53
Project No:15200707 ED System Improvements	\$1,071,607	\$2,969	.....	\$1,071,607.....	57
Project No:15500607 ED Remove & Replace	\$1,329,720 (	\$22,793)	.....	\$1,329,720.....	61
Project No:15500707 ED System Improvements	\$2,246,182	\$224,381	.....	\$2,246,182.....	65
Project No:15500807 Services	\$946,855	\$132,963	.....	\$946,855.....	69
Project No:20000607 Distr. Remove & Replace	\$1,217,108 (	\$113,772)	.....	\$1,217,108.....	74
Project No:20000707 Distr. System Improvements	\$1,821,157 (	\$105,140)	.....	\$1,821,157.....	78
Project No:41000207 Line Extensions - Commercial	\$771,427 (	\$43,286)	.....	\$771,427.....	82
Project No:41000607 Distr. Remove & Replace	\$3,786,512	\$18,781	.....	\$3,786,512.....	86
Project No:41000707 Distr. System Improvements	\$2,987,731 (	\$196,194)	.....	\$2,987,731.....	90
Project No:41000807 Services	\$2,842,183	\$5,212	.....	\$2,842,183.....	94
Project No:41001307 Cable Replacement	\$1,075,298 (	\$230,770)	.....	\$1,075,298.....	98
Project No:41001707 Santa Fe Pure Project	\$5,346,808	\$25,128	.....	\$5,346,808....	102
Project No:41002115 Downtown Manhattan Feeder phase 2	\$1,319,757	\$0	.....	\$1,319,757....	106
Project No:41002116 46kV Distribution System Improvements	\$799,091	\$0	.....	\$799,091....	110
Project No:50000607 Distr. Remove & Replace	\$1,112,581 (	\$127,189)	.....	\$1,112,581....	115
Project No:50000707 Distr. System Improvements	\$1,519,787 (	\$259,518)	.....	\$1,519,787....	119
Project No:50000807 Services	\$849,626 (	\$16,779)	.....	\$849,626....	123
Project No:50001707 Belen Pure Project	\$862,235 (	\$28,717)	.....	\$862,235....	128
Project No:60002010 Misc Substation Improvements	\$1,527,773	\$23,120	.....	\$1,527,773....	132

Project No:60002116 SCADA Switch Program .....	\$3,179,390 .....	\$0 .....	\$3,179,390....	136
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Project No:89900607 Distr. Remove & Replace .....	\$1,842,580 (.....\$131,563) .....		\$1,842,580....	148
Project No:89900807 Services .....	\$913,063 .....	\$5,909 .....	\$913,063....	152
Specifics .....	\$50,180,158 (.....\$501,602) ..		\$50,180,158....	157
Project No:10001715 COA ART Project .....	\$1,404,109 .....	\$26,092 .....	\$1,404,109....	158
Project No:10002316 Bird Guard Reliability .....	\$3,223,811 (.....\$106,842) .....		\$3,223,811....	163
Project No:10002516 Pole Grounds .....	\$1,438,800 (.....\$256,692) .....		\$1,438,800....	167
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Project No:60002416 RTU Replacement Program .....	\$1,795,557 .....	\$0 .....	\$1,795,557....	217
Project No:60002715 12.5kv Breaker Replacement .....	\$2,643,852 ( .....	\$45,232) .....	\$2,643,852....	221
Project No:60002912 San Clemente Station CO1 .....	\$3,845,381 .....	\$0 .....	\$3,845,381....	225
Project No:60003115 Distr Cable Testing and Replace 2015 .....	\$1,386,789 .....	\$1,446 .....	\$1,386,789....	230
Project No:60003116 Distr Cable Testing and Replace 2016 .....	\$4,059,920 .....	\$123 .....	\$4,059,920....	235
Project No:60003117 Distr Cable Testing and Replace 2017 .....	\$4,591,980 .....	\$0 .....	\$4,591,980....	240
Project No:60028015 TMS/OMS Upgrade Project .....	\$1,835,980 .....	\$0 .....	\$1,835,980....	245
Project No:60028017 DOC Updates Program Conversions .....	\$1,227,322 .....	\$0 .....	\$1,227,322....	250
Project No:60030013 Specialty Equip & Vehicle Co 001 .....	\$2,007,629 .....	\$0 .....	\$2,007,629....	254
Project No:60030515 General Services' Building Improvements Blanket .....	\$1,969,281 .....	\$0 .....	\$1,969,281....	258
Project No:60034214 Reeves Training Center .....	\$843,718 ( .....	\$139,251) .....	\$843,718....	262
Totals for Report .....	\$150,334,568 ( .....	\$5,169,860) .....	\$150,334,568....	265



***Blanket***

**Project No: 10000107 Line Extensions - Residential**

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

Construction Start Date                      1/1/2017                      Estimated Completion Date

List Interim In-Service Dates

Project consists of many individual customer work orders which are placed in service at various times throughout the year.

Project Need Justification

This project is necessary to meet PNM’s obligation to serve new customers and provides for the installation of electric line extensions for new residential customers, apartment complexes, and residential subdivisions.

Project Alternatives

Because this project is necessary for PNM to serve new customers, there are no alternatives to conducting this work. Nonetheless, line extension options for each new service request are evaluated individually taking into account many factors such as available capacity on existing lines, route distances, customer preferences, and right-of way requirements, per PNM Rule 15. The best method for the extension is selected based on a balance of cost, timing, and efficacy.

Technical Aspects

Line extensions are designed to the minimum system requirements in accordance with PNM Rule 15. Physical components include but are not limited to primary wires, secondary wires, wood or steel poles and other supporting structures, trenches, switchgear, and conduit systems.

Project Estimate Approach

Historical spend in this funding project was analyzed to develop this project’s estimated spend. This blanket’s project spend forecast is prepared by escalating the most recent 12-month actual spend (July 2015-June 2016) by the second quarter reforecast (Q2RF) of expected customer growth provided by PNM Strategic Marketing & Product Management expressed as the percentage change in number of new customers year-over-year. The typical breakdown of total cost by high level cost categories is as follows: customer built purchases 16%, contract labor 43%, material 19%, PNM labor 18%, and PNM transportation & equipment 3%. This breakdown typically fluctuates for each project depending on the specifics and complexity of the project and whether or customers elect the PNM Built or Customer Built Option. Under the Customer Built Option, PNM purchases the system from the customer for \$1 and pays the customer for the entitled credits less PNM’s cost to design and energize the system. Many residential subdivision projects are built under the Customer Built Option, where customers are responsible for line extension costs less allowed credits under PNM’s Rule 15. This project provides for PNM’s portion of the cost of these line extensions.

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

Cost Year 01

Project	10000107	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General		1,134,063		3,804	8,920	8,107	5,800	4,507	2,289	1,167,490		
120-Overtime-General		30,431		69	30	35	146	141	58	30,910		
350-Material Issues-Major		1,547,764		5,056	12,403	12,176	20,562	492	21,536	1,619,989		
370-Outside Services		1,532,280		-5,553	5,178	12,312	7,282	4,863	11,456	1,567,818		
374-Outside Svcs Legal		0		0	0	0	0	0	0	0		
377-Outside Services-Temp Labor		101,499		0	0	0	0	0	0	101,499		
391-Jt Proj Bills to PNM-Non-Labor		0		0	0	0	0	0	0	0		
530-Employee Expense		200		0	0	0	0	0	0	200		
610-Expenses - General		976,636		896	2,308	17,667	4,105	15,463	7,335	1,024,410		
805-Land and Land Rights		125		0	0	0	0	0	0	125		
807-Non Refundable Contribution		-3,595,674		-9,738	-4,834	-5,001	-5,253	-7,843	-531	-3,628,874		
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		97,114		305	704	641	468	366	185	99,782		
914-Pension and Benefits Load		372,293		1,160	2,680	2,438	1,780	1,392	703	382,444		
915-Injuries and Damages Load		95,853		253	584	531	388	303	153	98,064		
918-San Juan AR-Labor		0		0	0	0	0	0	0	0		
921-Stores / Purchasing Load		149,804		562	1,379	1,354	2,286	55	2,395	157,835		
922-Minor Material Load		96,755		0	0	0	0	0	0	96,755		
925-E and S Loads		828,084		1,108	6,069	9,973	7,498	5,092	8,087	865,911		
926-A and G Loads		320,133		355	2,399	4,185	3,153	2,119	3,550	335,894		
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		3,687,358		-1,723	37,820	64,417	48,215	26,949	57,216	3,920,252		
825-Clearings		-4,989,648		-12,483	-17,297	-26,250	-30,423	-29,763	-34,979	-5,140,844		
Clr Sum		-4,989,648		-12,483	-17,297	-26,250	-30,423	-29,763	-34,979	-5,140,844		
Proj Net		-1,302,290		-14,206	20,523	38,167	17,792	-2,814	22,237	-1,220,591		

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

Cost Year 02

Project	10000107	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	1,167,490	16,417	10,836	13,581	16,101	823	11,176	8,358	25,729	13,407	13,960	3,073	8,463	1,309,414
120-Overtime-General	30,910	2,027	1,338	1,678	1,990	101	1,380	1,033	3,179	1,656	1,724	379	1,046	48,441
350-Material Issues-Major	1,619,989	10,036	6,625	8,303	9,845	502	6,833	5,109	15,730	8,198	8,535	1,880	5,175	1,706,760
370-Outside Services	1,567,818	21,368	14,105	17,676	20,958	1,073	14,548	10,878	33,490	17,450	18,170	4,001	11,016	1,752,551
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	101,499	0	0	0	0	0	0	0	0	0	0	0	0	101,499
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	200	0	0	0	0	0	0	0	0	0	0	0	0	200
610-Expenses - General	1,024,410	17,305	11,422	14,316	16,972	869	11,782	8,810	27,120	14,133	14,715	3,240	8,921	1,174,015
805-Land and Land Rights	125	0	0	0	0	0	0	0	0	0	0	0	0	125
807-Non Refundable Contribution	-3,628,874	-32,196	-21,254	-26,633	-31,577	-1,615	-21,921	-16,391	-50,458	-26,295	-27,379	-6,030	-16,599	-3,907,222
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	99,782	1,446	954	1,196	1,418	72	984	736	2,266	1,181	1,230	271	746	112,283
914-Pension and Benefits Load	382,444	5,033	3,322	4,164	4,937	252	3,427	2,563	7,889	4,111	4,280	942	2,595	425,960
915-Injuries and Damages Load	98,064	1,147	757	949	1,125	57	781	584	1,798	937	976	215	591	107,982
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	157,835	1,736	1,146	1,436	1,703	87	1,182	884	2,721	1,418	1,477	325	895	172,847
922-Minor Material Load	96,755	0	0	0	0	0	0	0	0	0	0	0	0	96,755
925-E and S Loads	865,911	14,358	9,477	11,878	14,083	720	9,775	7,310	22,503	11,726	12,209	2,688	7,402	990,039
926-A and G Loads	335,894	4,513	2,979	3,733	4,426	226	3,072	2,297	7,073	3,686	3,837	845	2,327	374,908
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	3,920,252	63,190	41,708	52,278	61,982	3,168	43,019	32,171	99,040	51,607	53,733	11,829	32,578	4,466,556
825-Clearings	-5,140,844	-38,216	-38,845	-41,263	-44,992	-37,464	-38,464	-37,331	-48,439	-49,009	-49,859	-43,014	-41,135	-5,648,875
Clr Sum	-5,140,844	-38,216	-38,845	-41,263	-44,992	-37,464	-38,464	-37,331	-48,439	-49,009	-49,859	-43,014	-41,135	-5,648,875
Proj Net	-1,220,591	24,974	2,863	11,015	16,989	-34,296	4,555	-5,160	50,601	2,598	3,874	-31,185	-8,557	-1,182,319

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

Cost Year 03

Project	10000107	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	1,309,414	20,264	13,376	16,763	19,875	1,016	13,796	10,316	31,759	16,549	17,232	3,795	10,447	1,484,602
120-Overtime-General	48,441	2,503	1,652	2,071	2,455	125	1,704	1,274	3,922	2,044	2,128	469	1,290	70,078
350-Material Issues-Major	1,706,760	12,328	8,138	10,198	12,092	618	8,394	6,276	19,321	10,069	10,483	2,309	6,357	1,813,343
370-Outside Services	1,752,551	26,248	17,327	21,713	25,744	1,317	17,870	13,362	41,136	21,435	22,320	4,914	13,532	1,979,469
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	101,499	0	0	0	0	0	0	0	0	0	0	0	0	101,499
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	200	0	0	0	0	0	0	0	0	0	0	0	0	200
610-Expenses - General	1,174,015	21,256	14,032	17,583	20,848	1,066	14,471	10,822	33,312	17,359	18,076	3,981	10,958	1,357,779
805-Land and Land Rights	125	0	0	0	0	0	0	0	0	0	0	0	0	125
807-Non Refundable Contribution	-3,907,222	-39,547	-26,106	-32,716	-38,789	-1,983	-26,925	-20,135	-61,980	-32,298	-33,629	-7,407	-20,389	-4,249,126
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	112,283	1,785	1,178	1,477	1,751	89	1,215	909	2,797	1,458	1,518	334	920	127,714
914-Pension and Benefits Load	425,960	6,213	4,101	5,140	6,094	311	4,230	3,163	9,737	5,074	5,283	1,164	3,203	479,673
915-Injuries and Damages Load	107,982	1,416	935	1,171	1,389	71	964	721	2,219	1,156	1,204	265	730	120,224
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	172,847	2,133	1,408	1,764	2,092	107	1,452	1,086	3,343	1,742	1,814	399	1,100	191,285
922-Minor Material Load	96,755	0	0	0	0	0	0	0	0	0	0	0	0	96,755
925-E and S Loads	990,039	17,667	11,662	14,614	17,328	886	12,028	8,994	27,687	14,428	15,023	3,308	9,108	1,142,771
926-A and G Loads	374,908	5,551	3,664	4,592	5,444	278	3,779	2,826	8,699	4,533	4,720	1,039	2,862	422,895
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 PNM D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	4,466,556	77,816	51,367	64,370	76,322	3,902	52,978	39,613	121,953	63,549	66,172	14,571	40,118	5,139,286
825-Clearings	-5,648,875	-47,738	-48,391	-51,267	-55,777	-46,440	-47,617	-46,176	-59,816	-60,488	-61,511	-53,062	-50,732	-6,277,888
Clr Sum	-5,648,875	-47,738	-48,391	-51,267	-55,777	-46,440	-47,617	-46,176	-59,816	-60,488	-61,511	-53,062	-50,732	-6,277,888
Proj Net	-1,182,319	30,078	2,976	13,103	20,545	-42,538	5,362	-6,563	62,137	3,061	4,661	-38,490	-10,614	-1,138,602

***Project No: 10000207 Line Extension - Commercial***

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

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

Project consists of many individual customer work orders which are placed in service at various times throughout the year.

Project Need Justification

This project is necessary to meet PNM’s obligation to serve new customers and provides for the installation of distribution line extensions necessary to serve new or expanding non-residential customers.

Project Alternatives

Because this project is necessary for PNM to serve new customers, there are no alternatives to conducting this work. Nonetheless, line extension options for each new service request are evaluated individually taking into account many factors such as available capacity on existing lines, route distances, customer preferences, and right-of way requirements, per PNM Rule 15. The best method for the extension is selected based on a balance of cost, timing, and efficacy.

Technical Aspects

Line extensions are designed to the minimum system requirements in accordance with PNM Rule 15. Physical components include but are not limited to primary wires, secondary wires, wood or steel poles and other supporting structures, trenches, switchgear, and duct-bank systems.

Project Estimate Approach

Historical spend in this funding project was analyzed to develop this project’s estimated spend. This blanket’s project spend forecast is prepared by escalating the most recent 12-month actual spend (July 2015-June 2016) by the second quarter reforecast (Q2RF) of expected customer growth provided by PNM Strategic Marketing & Product Management expressed as the percentage change in number of new customers year-over-year. The typical breakdown of total cost by high level cost categories is as follows: outside services including contract labor 41%, material 39%, PNM labor 15%, and PNM transportation & equipment 4%. This breakdown typically fluctuates for each project depending on the specifics and complexity of the project and whether or customers elect the PNM Built or Customer Built Option. Under the Customer Built Option, PNM purchases the system from the customer for \$1 and pays the customer for the entitled credits less PNM’s cost to design and energize the system. Many residential subdivision projects are built under the Customer Built Option, where customers are responsible for line extension costs less allowed credits under PNM's Rule 15. This project provides for PNM’s portion of the cost of these line extensions.

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

Cost Year 01

Project	10000207	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	3,073,810			21,799	59,235	42,168	37,309	20,041	24,652	3,279,014		
120-Overtime-General	214,781			8,579	12,434	2,652	7,170	2,768	637	249,021		
350-Material Issues-Major	7,676,548			140,000	141,278	125,000	88,870	70,000	74,696	8,316,392		
370-Outside Services	5,398,677			150,000	140,000	120,000	97,439	85,000	65,000	6,056,116		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	278,380			-5	5	0	0	1	175	278,556		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	12,513			0	0	0	0	0	0	12,513		
610-Expenses - General	15,361			8,156	12,028	4,700	10,543	4,525	21,494	76,807		
805-Land and Land Rights	4,301			0	0	0	0	0	0	4,301		
807-Non Refundable Contribution	-14,414,359			-370,070	-221,865	-141,493	-310,003	121,930	-91,380	-15,427,240		
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	274,831			2,391	5,640	3,527	3,500	1,795	1,990	293,675		
914-Pension and Benefits Load	1,037,844			9,095	21,458	13,419	13,317	6,829	7,572	1,109,534		
915-Injuries and Damages Load	267,502			1,981	4,673	2,922	2,900	1,487	1,649	283,114		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	856,373			15,568	15,710	13,900	9,882	7,784	8,306	927,524		
922-Minor Material Load	528,680			0	0	0	0	0	0	528,680		
925-E and S Loads	3,357,247			63,269	73,399	58,162	48,294	35,603	36,605	3,672,579		
926-A and G Loads	1,201,195			27,334	30,366	24,504	20,079	15,170	15,530	1,334,178		
928-AFUDC Debt Reg	241			0	0	0	0	0	0	241		
929-AFUDC - Equity Regular	211			0	0	0	0	0	0	211		
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	9,784,137			78,096	294,361	269,462	29,301	372,933	166,925	10,995,215		
825-Clearings	-10,490,140			-259,650	-268,675	-268,879	-206,589	-249,838	-228,281	-11,972,053		
Clr Sum	-10,490,140			-259,650	-268,675	-268,879	-206,589	-249,838	-228,281	-11,972,053		
Proj Net	-706,003			-181,554	25,686	582	-177,288	123,095	-61,356	-976,837		

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

Cost Year 02

Project	10000207	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	3,279,014	58,314	5,016	47,127	37,524	17,924	32,219	88,681	77,369	53,880	44,996	29,938	55,858	3,827,860
120-Overtime-General	249,021	12,828	1,103	10,368	8,255	3,943	7,088	19,509	17,020	11,853	9,899	6,586	12,289	369,762
350-Material Issues-Major	8,316,392	126,430	10,874	102,177	81,357	38,861	69,853	192,269	167,744	116,816	97,555	64,907	121,106	9,506,341
370-Outside Services	6,056,116	136,483	11,738	110,302	87,826	41,951	75,408	207,558	181,082	126,104	105,312	70,068	130,735	7,340,683
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	278,556	0	0	124	41	0	41	-6	165	0	0	-216	180	278,885
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	12,513	0	0	0	0	0	0	0	0	0	0	0	0	12,513
610-Expenses - General	76,807	20,621	1,773	16,664	13,270	6,338	11,393	31,359	27,359	19,053	15,911	10,586	19,752	270,886
805-Land and Land Rights	4,301	0	0	0	0	0	0	0	0	0	0	0	0	4,301
807-Non Refundable Contribution	-15,427,240	-175,643	-15,107	-141,948	-113,024	-53,987	-97,043	-267,108	-233,038	-162,285	-135,528	-90,172	-168,245	-17,080,368
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	293,675	5,578	480	4,508	3,589	1,714	3,082	8,482	7,400	5,153	4,304	2,863	5,343	346,171
914-Pension and Benefits Load	1,109,534	19,415	1,670	15,690	12,493	5,968	10,727	29,525	25,759	17,939	14,981	9,967	18,597	1,292,264
915-Injuries and Damages Load	283,114	4,425	381	3,576	2,847	1,360	2,445	6,729	5,871	4,089	3,414	2,272	4,239	324,762
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	927,524	21,872	1,881	17,677	14,075	6,723	12,085	33,263	29,020	20,209	16,877	11,229	20,951	1,133,385
922-Minor Material Load	528,680	0	0	0	0	0	0	0	0	0	0	0	0	528,680
925-E and S Loads	3,672,579	73,746	6,343	59,623	47,463	22,667	40,753	112,148	97,876	68,138	56,903	37,819	70,675	4,366,733
926-A and G Loads	1,334,178	23,834	2,050	19,270	15,340	7,326	13,171	36,246	31,634	22,022	18,391	12,222	22,843	1,558,526
928-AFUDC Debt Reg	241	0	0	0	0	0	0	0	0	0	0	0	0	241
929-AFUDC - Equity Regular	211	0	0	0	0	0	0	0	0	0	0	0	0	211
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	10,995,215	327,903	28,201	265,158	211,056	100,788	181,221	498,655	435,260	302,971	253,015	168,069	314,323	14,081,836
825-Clearings	-11,972,053	-273,735	-204,986	-221,834	-218,816	-185,768	-184,495	-272,460	-318,044	-313,823	-296,797	-260,753	-275,753	-14,999,318
Clr Sum	-11,972,053	-273,735	-204,986	-221,834	-218,816	-185,768	-184,495	-272,460	-318,044	-313,823	-296,797	-260,753	-275,753	-14,999,318
Proj Net	-976,837	54,168	-176,785	43,324	-7,760	-84,980	-3,274	226,195	117,216	-10,853	-43,782	-92,684	38,570	-917,482

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

Cost Year 03

Project	10000207	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	3,827,860	60,999	5,247	49,297	39,252	18,749	33,702	92,764	80,931	56,360	47,067	31,316	58,430	4,401,974
120-Overtime-General	369,762	13,419	1,155	10,845	8,635	4,125	7,414	20,407	17,804	12,398	10,354	6,889	12,854	496,061
350-Material Issues-Major	9,506,341	131,603	11,320	106,357	84,686	40,450	72,712	200,135	174,607	121,595	101,546	67,563	126,060	10,744,975
370-Outside Services	7,340,683	142,067	12,219	114,814	91,419	43,667	78,493	216,048	188,491	131,264	109,620	72,935	136,085	8,677,805
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	278,885	0	0	139	46	0	46	-6	185	0	0	-243	185	279,237
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	12,513	0	0	0	0	0	0	0	0	0	0	0	0	12,513
610-Expenses - General	270,886	21,464	1,846	17,347	13,812	6,598	11,859	32,642	28,478	19,832	16,562	11,020	20,560	472,906
805-Land and Land Rights	4,301	0	0	0	0	0	0	0	0	0	0	0	0	4,301
807-Non Refundable Contribution	-17,080,368	-182,828	-15,725	-147,755	-117,649	-56,196	-101,014	-278,036	-242,571	-168,924	-141,072	-93,861	-175,128	-18,801,127
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	346,171	5,834	502	4,715	3,754	1,793	3,223	8,873	7,741	5,391	4,502	2,995	5,589	401,083
914-Pension and Benefits Load	1,292,264	20,309	1,747	16,413	13,068	6,242	11,221	30,884	26,945	18,764	15,670	10,426	19,453	1,483,407
915-Injuries and Damages Load	324,762	4,629	398	3,741	2,979	1,423	2,557	7,039	6,141	4,277	3,572	2,376	4,434	368,328
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	1,133,385	22,767	1,958	18,400	14,651	6,998	12,579	34,623	30,207	21,036	17,567	11,688	21,808	1,347,669
922-Minor Material Load	528,680	0	0	0	0	0	0	0	0	0	0	0	0	528,680
925-E and S Loads	4,366,733	76,862	6,611	62,144	49,469	23,625	42,476	116,887	102,014	71,017	59,307	39,413	73,661	5,090,220
926-A and G Loads	1,558,526	24,834	2,136	20,079	15,984	7,633	13,724	37,766	32,961	22,945	19,162	12,733	23,800	1,792,284
928-AFUDC Debt Reg	241	0	0	0	0	0	0	0	0	0	0	0	0	241
929-AFUDC - Equity Regular	211	0	0	0	0	0	0	0	0	0	0	0	0	211
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	14,081,836	341,959	29,415	276,536	220,106	105,108	188,992	520,026	453,934	315,955	263,857	175,252	327,792	17,300,767
825-Clearings	-14,999,318	-294,291	-220,125	-235,920	-231,492	-196,104	-194,113	-285,369	-332,567	-327,916	-309,979	-272,256	-287,806	-18,187,256
Clr Sum	-14,999,318	-294,291	-220,125	-235,920	-231,492	-196,104	-194,113	-285,369	-332,567	-327,916	-309,979	-272,256	-287,806	-18,187,256
Proj Net	-917,482	47,669	-190,710	40,616	-11,387	-90,997	-5,121	234,657	121,367	-11,961	-46,122	-97,004	39,986	-886,489

***Project No: 10000607 Distr. Remove & Replace***

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

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

This project consists of individual work orders placed in service at various times throughout the year as determined by governmental road widening schedules and the occurrence of significant storms.

Project Need Justification

This project is driven by the need to replace failed equipment within the service area and other requirements in relation to various government-led roadway improvement projects. The work is required under franchise agreements or as necessary for maintaining system integrity and/or restoring power after storms.

Project Alternatives

These projects are a result of government requirements or to restore lost service and, therefore, limits project alternatives available. In most cases, work will involve the replacement of like for like equipment. Other configurations evaluated on a case-by-case basis taking into account the best options available.

Technical Aspects

This project includes relocations of electric distribution facilities in road rights-of-way and also the removal and replacement of existing electric distribution facilities that have been damaged during storms or deteriorated through normal aging. Work will include the design, installation, and removal of wire, poles, pole hardware (including insulators, cross arms, cut outs, anchor assemblies, overhead and underground switches, protection equipment, underground cable and conduits) and other equipment.

Project Estimate Approach

Because a significant portion of the activities for this project include replacement of storm damaged facilities, the work required is largely unknown at the time of forecast. Historical spend in this funding project is analyzed to develop this project’s estimated spend. The initial budget for this project was developed by applying escalation factors to the most recent 12-month actual spend (July 2015-June 2016) by the second quarter reforecast (Q2RF) expected customer growth provided by PNM Strategic Marketing & Product Management expressed as the percentage change in number of new customers year-over-year. Additionally, labor and non-labor cost components are escalated using annual expected cost increase percentages as supplied by PNM budget. The typical breakdown of cost by categories is as follows: outside services (43%), company labor (19%), materials (31%), and company transportation (7%). This breakdown can fluctuate depending on the nature of the removals and replacement facilities including whether they are overhead construction or underground facilities.

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

Cost Year 01

Project	10000607	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General		3,740,100		40,164	45,944	30,489	46,173	25,202	17,364	3,945,436		
120-Overtime-General		2,181,507		24,224	86,041	10,452	-9,154	7,189	10,109	2,310,368		
350-Material Issues-Major		5,927,215		123,211	26,350	45,180	54,590	94,521	7,107	6,278,173		
370-Outside Services		6,294,246		-35,575	145,453	110,948	-7,901	63,171	266,635	6,836,977		
374-Outside Svcs Legal		24,302		-262	1,033	724	2,990	2,794	1,086	32,667		
377-Outside Services-Temp Labor		249,146		-15	58	214	1,020	848	588	251,860		
391-Jt Proj Bills to PNM-Non-Labor		0		0	0	0	0	0	0	0		
530-Employee Expense		28,235		0	0	0	0	0	0	28,235		
610-Expenses - General		-26,343		18,719	26,779	-116	18,888	7,145	9,884	54,956		
805-Land and Land Rights		34,052		0	0	0	0	0	0	34,052		
807-Non Refundable Contribution		-6,177,190		-112,207	-57,350	-53,328	-31,603	-123,951	-76,532	-6,632,161		
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		474,225		5,067	10,387	3,222	2,913	2,549	2,162	500,526		
914-Pension and Benefits Load		1,789,255		19,278	39,516	12,258	11,083	9,698	8,226	1,889,314		
915-Injuries and Damages Load		481,500		4,198	8,605	2,669	2,414	2,112	1,791	503,290		
918-San Juan AR-Labor		0		0	0	0	0	0	0	0		
921-Stores / Purchasing Load		733,172		13,701	2,930	5,024	6,070	10,511	790	772,199		
922-Minor Material Load		387,300		0	0	0	0	0	0	387,300		
925-E and S Loads		3,622,497		36,817	72,181	39,967	22,758	39,818	60,116	3,894,154		
926-A and G Loads		1,391,876		14,183	27,594	16,464	8,870	16,712	26,023	1,501,722		
928-AFUDC Debt Reg		401		0	0	0	0	0	0	401		
929-AFUDC - Equity Regular		517		0	0	0	0	0	0	517		
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		21,156,013		151,503	435,521	224,167	129,112	158,320	335,350	22,589,985		
825-Clearings		-22,983,012		-502,182	-480,851	-398,712	-312,440	-263,121	-286,234	-25,226,552		
Cir Sum		-22,983,012		-502,182	-480,851	-398,712	-312,440	-263,121	-286,234	-25,226,552		
Proj Net		-1,826,999		-350,679	-45,329	-174,545	-183,328	-104,802	49,115	-2,636,567		

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

Cost Year 02

Project	10000607	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	3,945,436	11,964	26,712	6,467	6,830	16,710	17,859	14,457	63,116	23,279	20,697	21,890	20,419	4,195,836	
120-Overtime-General	2,310,368	6,840	15,271	3,697	3,904	9,553	10,210	8,265	36,083	13,308	11,833	12,514	11,674	2,453,520	
350-Material Issues-Major	6,278,173	28,586	63,822	15,452	16,318	39,924	42,671	34,541	150,803	55,620	49,452	52,300	48,787	6,876,449	
370-Outside Services	6,836,977	45,839	102,342	24,778	26,166	64,021	68,425	55,389	241,822	89,191	79,299	83,867	78,234	7,796,351	
374-Outside Svcs Legal	32,667	0	0	0	0	0	0	0	0	0	0	0	0	32,667	
377-Outside Services-Temp Labor	251,860	47	104	25	27	65	70	56	246	91	81	85	79	252,834	
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	28,235	0	0	0	0	0	0	0	0	0	0	0	0	28,235	
610-Expenses - General	54,956	5,448	12,163	2,945	3,110	7,609	8,132	6,583	28,741	10,600	9,425	9,968	9,298	168,979	
805-Land and Land Rights	34,052	1,004	2,243	543	573	1,403	1,499	1,214	5,299	1,954	1,738	1,838	1,714	55,074	
807-Non Refundable Contribution	-6,632,161	-23,707	-52,929	-12,815	-13,533	-33,110	-35,388	-28,646	-125,065	-46,127	-41,012	-43,374	-40,461	-7,128,328	
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	500,526	1,474	3,291	797	842	2,059	2,201	1,781	7,777	2,868	2,550	2,697	2,516	531,381	
914-Pension and Benefits Load	1,889,314	5,132	11,457	2,774	2,929	7,167	7,660	6,201	27,072	9,985	8,877	9,389	8,758	1,996,714	
915-Injuries and Damages Load	503,290	1,170	2,611	632	668	1,634	1,746	1,413	6,170	2,276	2,023	2,140	1,996	527,769	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	772,199	4,945	11,041	2,673	2,823	6,907	7,382	5,976	26,089	9,622	8,555	9,048	8,440	875,700	
922-Minor Material Load	387,300	0	0	0	0	0	0	0	0	0	0	0	0	387,300	
925-E and S Loads	3,894,154	20,448	45,653	11,053	11,672	28,558	30,523	24,708	107,871	39,786	35,374	37,411	34,898	4,322,109	
926-A and G Loads	1,501,722	6,702	14,963	3,623	3,826	9,360	10,004	8,098	35,355	13,040	11,594	12,261	11,438	1,641,984	
928-AFUDC Debt Reg	401	0	0	0	0	0	0	0	0	0	0	0	0	401	
929-AFUDC - Equity Regular	517	0	0	0	0	0	0	0	0	0	0	0	0	517	
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	22,589,985	115,891	258,743	62,644	66,154	161,860	172,994	140,036	611,379	225,493	200,485	212,034	197,791	25,015,490	
825-Clearings	-25,226,552	-231,725	-240,371	-121,396	-43,875	-73,173	-123,884	-65,792	-124,350	-459,218	-229,609	-160,014	-455,162	-27,555,121	
Clr Sum	-25,226,552	-231,725	-240,371	-121,396	-43,875	-73,173	-123,884	-65,792	-124,350	-459,218	-229,609	-160,014	-455,162	-27,555,121	
Proj Net	-2,636,567	-115,833	18,373	-58,753	22,279	88,686	49,110	74,245	487,029	-233,725	-29,124	52,019	-257,371	-2,539,631	

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

Cost Year 03

Project 10000607	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	4,195,836	12,634	28,208	6,830	7,212	17,646	18,859	15,266	66,651	24,583	21,857	23,115	20,840	4,459,537
120-Overtime-General	2,453,520	7,222	16,126	3,905	4,123	10,088	10,782	8,728	38,104	14,054	12,495	13,215	12,327	2,604,689
350-Material Issues-Major	6,876,449	30,039	67,065	16,237	17,147	41,953	44,839	36,297	158,468	58,447	51,965	54,959	51,267	7,505,133
370-Outside Services	7,796,351	48,169	107,544	26,038	27,496	67,275	71,903	58,205	254,114	93,724	83,330	88,130	82,210	8,804,488
374-Outside Svcs Legal	32,667	0	0	0	0	0	0	0	0	0	0	0	0	32,667
377-Outside Services-Temp Labor	252,834	49	109	27	28	68	73	59	258	96	85	89	83	253,859
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	28,235	0	0	0	0	0	0	0	0	0	0	0	0	28,235
610-Expenses - General	168,979	5,725	12,782	3,095	3,268	7,996	8,546	6,918	30,202	11,140	9,904	10,474	9,770	288,798
805-Land and Land Rights	55,074	1,056	2,357	571	603	1,474	1,575	1,275	5,568	2,054	1,826	1,931	1,801	77,165
807-Non Refundable Contribution	-7,128,328	-28,149	-62,847	-15,216	-16,068	-39,315	-42,019	-34,014	-148,499	-54,771	-48,696	-51,501	-48,042	-7,717,465
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	531,381	1,557	3,476	842	889	2,174	2,324	1,881	8,213	3,029	2,693	2,848	2,600	563,907
914-Pension and Benefits Load	1,996,714	5,419	12,099	2,929	3,093	7,569	8,089	6,548	28,588	10,544	9,375	9,914	9,051	2,109,932
915-Injuries and Damages Load	527,769	1,235	2,758	668	705	1,725	1,844	1,492	6,516	2,403	2,137	2,260	2,063	553,574
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	875,700	5,197	11,602	2,809	2,966	7,258	7,757	6,279	27,415	10,111	8,990	9,508	8,869	984,463
922-Minor Material Load	387,300	0	0	0	0	0	0	0	0	0	0	0	0	387,300
925-E and S Loads	4,322,109	21,513	48,032	11,629	12,281	30,047	32,114	25,996	113,494	41,860	37,217	39,361	36,521	4,772,173
926-A and G Loads	1,641,984	7,049	15,738	3,810	4,024	9,845	10,522	8,518	37,186	13,715	12,194	12,897	11,982	1,789,462
928-AFUDC Debt Reg	401	0	0	0	0	0	0	0	0	0	0	0	0	401
929-AFUDC - Equity Regular	517	0	0	0	0	0	0	0	0	0	0	0	0	517
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	25,015,490	118,714	265,049	64,173	67,767	165,805	177,209	143,449	626,276	230,989	205,372	217,200	201,344	27,498,835
825-Clearings	-27,555,121	-134,752	-187,357	-175,927	-61,204	-95,174	-153,086	-78,712	-138,693	-505,450	-249,645	-172,076	-485,017	-29,992,213
Clr Sum	-27,555,121	-134,752	-187,357	-175,927	-61,204	-95,174	-153,086	-78,712	-138,693	-505,450	-249,645	-172,076	-485,017	-29,992,213
Proj Net	-2,539,631	-16,038	77,692	-111,754	6,563	70,630	24,122	64,738	487,584	-274,461	-44,272	45,123	-283,673	-2,493,378

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*Project No: 10000707 System Improvements*

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

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

This project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

Annual load analyses and modeling of the distribution system has identified operational issues caused by normal load growth requiring system improvements to maintain voltage requirements and/or reliability. Additionally a need for system improvements were identified while designing other projects, through line patrols, or from outage investigations. These improvements are necessary to meet the standards for service as required of New Mexico Administrative Code (NMAC) Rule 17.9.560.15.

Project Alternatives

Alternatives are evaluated on a case-by case basis. This usually involves analysis by PNM’s Distribution Planning or Distribution Protection departments using simulation models of the distribution system. With these models, engineers will evaluate different equipment or configuration alternatives to arrive at the best solutions for maintaining adequate voltage to all customers, enhance reliability and ensure the most cost effective and practical solution.

Technical Aspects

This project provides for numerous small distribution facility improvements including the design and installation of conduit systems, cable, wire, poles, overhead and underground switches, voltage and power factor supporting devices, and protection equipment. System improvements can include new capacitor banks, voltage regulators, protective devices, upgraded wires and supervisory control and data acquisitions (SCADA) devices.

Project Estimate Approach

Most of the system improvement projects for this blanket are not identified prior to budget. Therefore, historical spend is used as a guide to estimate future funding for the project. The initial budget for this project was developed by applying labor and non-labor cost escalation factors to the most recent 12-month actual spend (July 2015-June 2016).The typical breakdown of cost by categories is as follows: company labor 11%, outside services 66%, materials 20%, and company transportation 3%. This breakdown can fluctuate depending on the nature of the system improvement work.

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

Cost Year 01

Project	10000707	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	1,079,763			3,531	4,976	15,060	7,821	6,316	6,574	1,124,041		
120-Overtime-General	1,215,041			1,605	3,695	10,754	1,449	4,288	2,383	1,239,215		
350-Material Issues-Major	2,148,065			2,057	11,260	68,331	-57,112	7,771	11,619	2,191,992		
370-Outside Services	3,735,776			22,552	12,871	71,428	164,355	38,965	11,710	4,057,657		
374-Outside Svcs Legal	0			0	0	0	-1,045	0	0	-1,045		
377-Outside Services-Temp Labor	21,065			114	114	114	0	0	0	21,407		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	887			0	0	0	0	0	0	887		
610-Expenses - General	0			8,333	7,230	13,805	6,453	3,226	2,547	41,594		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	-1,135,625			-1,584	-6,634	-11,920	-35,883	-33,316	0	-1,224,962		
829-Construction Adjustment	0			0	0	0	-1,236	-981	-746	-2,963		
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	170,662			404	682	2,032	730	835	705	176,049		
914-Pension and Benefits Load	645,283			1,538	2,596	7,729	2,776	3,175	2,682	665,778		
915-Injuries and Damages Load	171,746			335	565	1,683	604	691	584	176,209		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	273,878			229	1,252	7,598	-6,351	864	1,292	278,763		
922-Minor Material Load	148,847			0	0	0	0	0	0	148,847		
925-E and S Loads	1,422,352			7,487	8,138	35,323	23,316	12,074	7,179	1,515,869		
926-A and G Loads	665,594			3,178	3,340	14,934	10,144	5,039	2,898	705,127		
928-AFUDC Debt Reg	84,459			586	424	542	593	469	356	87,430		
929-AFUDC - Equity Regular	87,405			635	459	587	643	508	386	90,623		
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	10,735,196			50,999	50,970	238,000	117,257	49,925	50,168	11,292,515		
825-Clearings	-11,519,847			-123,084	-92,075	-154,823	-138,669	-100,509	-78,863	-12,207,870		
Clr Sum	-11,519,847			-123,084	-92,075	-154,823	-138,669	-100,509	-78,863	-12,207,870		
Proj Net	-784,651			-72,085	-41,105	83,177	-21,413	-50,584	-28,695	-915,355		

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

Cost Year 02

Project	10000707	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,124,041	8,927	9,153	10,547	4,439	8,883	12,751	7,450	15,481	14,085	9,507	13,248	13,065	1,251,578
	120-Overtime-General	1,239,215	2,262	2,319	2,673	1,125	2,251	3,231	1,888	3,923	3,569	2,409	3,357	3,865	1,272,088
	350-Material Issues-Major	2,191,992	16,273	16,684	19,225	8,091	16,193	23,243	13,580	28,220	25,674	17,329	24,150	25,750	2,426,403
	370-Outside Services	4,057,657	62,525	64,105	73,868	31,086	62,217	89,306	52,178	108,426	98,645	66,582	92,788	106,814	4,966,197
	374-Outside Svcs Legal	-1,045	11	12	13	6	11	16	9	20	18	12	17	19	-881
	377-Outside Services-Temp Labor	21,407	29	14	73	0	0	42	1	22	0	0	0	0	21,588
	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	887	0	0	0	0	0	0	0	0	0	0	0	0	887
	610-Expenses - General	41,594	3,532	3,622	4,173	1,756	3,515	5,045	2,948	6,125	5,573	3,761	5,242	6,034	92,921
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	-1,224,962	-30,124	-30,885	-35,589	-14,977	-29,975	-43,026	-25,139	-52,238	-47,526	-32,078	-44,704	-51,461	-1,662,684
	829-Construction Adjustment	-2,963	-926	-926	0	0	0	0	0	0	0	0	0	0	-4,815
	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	176,049	877	899	1,036	436	873	1,253	732	1,521	1,384	934	1,302	1,327	188,625
	914-Pension and Benefits Load	665,778	3,054	3,131	3,608	1,518	3,039	4,362	2,548	5,295	4,818	3,252	4,532	4,620	709,554
	915-Injuries and Damages Load	176,209	696	714	822	346	693	994	581	1,207	1,098	741	1,033	1,053	186,187
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	278,763	2,815	2,886	3,326	1,400	2,801	4,021	2,349	4,882	4,442	2,998	4,178	4,455	319,316
	922-Minor Material Load	148,847	0	0	0	0	0	0	0	0	0	0	0	0	148,847
	925-E and S Loads	1,515,869	18,852	19,325	22,279	9,370	18,753	26,927	15,728	32,686	29,734	20,069	27,968	31,209	1,788,771
	926-A and G Loads	705,127	6,287	6,445	7,430	3,125	6,254	8,980	5,245	10,901	9,916	6,693	9,328	10,453	796,185
	928-AFUDC Debt Reg	87,430	396	425	464	601	612	855	996	1,193	1,488	1,577	1,576	1,796	99,409
	929-AFUDC - Equity Regular	90,623	520	558	609	788	802	1,122	1,306	1,564	1,951	2,069	2,067	2,356	106,335
	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	11,292,515	96,009	98,481	114,559	49,109	96,923	139,123	82,402	169,228	154,868	105,855	146,081	161,355	12,706,509
	825-Clearings	-12,207,870	-86,236	-91,501	-29,179	-68,851	-24,238	-56,737	-50,151	-48,533	-95,861	-126,524	-68,922	-301,101	-13,255,705
	Clr Sum	-12,207,870	-86,236	-91,501	-29,179	-68,851	-24,238	-56,737	-50,151	-48,533	-95,861	-126,524	-68,922	-301,101	-13,255,705
	Proj Net	-915,355	9,774	6,980	85,380	-19,743	72,685	82,386	32,251	120,695	59,006	-20,669	77,159	-139,746	-549,197

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

Cost Year 03

Project	10000707	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	1,251,578	9,106	9,336	10,758	4,527	9,061	13,006	7,599	15,791	14,366	9,697	13,513	18,000	1,386,340	
120-Overtime-General	1,272,088	2,308	2,366	2,726	1,147	2,296	3,296	1,926	4,002	3,641	2,457	3,424	3,942	1,305,619	
350-Material Issues-Major	2,426,403	16,517	16,935	19,514	8,212	16,436	23,592	13,784	28,643	26,059	17,589	24,512	28,217	2,666,410	
370-Outside Services	4,966,197	63,463	65,067	74,976	31,552	63,150	90,646	52,961	110,053	100,125	67,580	94,180	108,416	5,888,366	
374-Outside Svcs Legal	-881	11	12	13	6	11	16	10	20	18	12	17	20	-715	
377-Outside Services-Temp Labor	21,588	47	22	75	0	0	43	1	22	0	0	0	0	21,797	
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	887	0	0	0	0	0	0	0	0	0	0	0	0	887	
610-Expenses - General	92,921	3,585	3,676	4,236	1,783	3,568	5,121	2,992	6,217	5,656	3,818	5,321	6,125	145,018	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-1,662,684	-30,576	-31,348	-36,122	-15,201	-30,425	-43,672	-25,516	-53,022	-48,239	-32,559	-45,375	-52,233	-2,106,971	
829-Construction Adjustment	-4,815	0	0	0	0	0	0	0	0	0	0	0	0	-4,815	
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	188,625	895	917	1,057	445	890	1,278	747	1,552	1,412	953	1,328	1,720	201,819	
914-Pension and Benefits Load	709,554	3,115	3,193	3,680	1,549	3,099	4,449	2,599	5,401	4,914	3,317	4,622	5,988	755,481	
915-Injuries and Damages Load	186,187	710	728	839	353	706	1,014	592	1,231	1,120	756	1,054	1,365	196,655	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	319,316	2,857	2,930	3,376	1,421	2,843	4,081	2,385	4,955	4,508	3,043	4,241	4,882	360,838	
922-Minor Material Load	148,847	0	0	0	0	0	0	0	0	0	0	0	0	148,847	
925-E and S Loads	1,788,771	19,153	19,632	22,632	9,518	19,050	27,352	15,977	33,203	30,204	20,386	28,410	33,368	2,067,656	
926-A and G Loads	796,185	6,387	6,546	7,546	3,174	6,352	9,120	5,327	11,071	10,071	6,798	9,473	11,069	889,118	
928-AFUDC Debt Reg	99,409	1,357	1,478	1,522	1,535	1,301	1,493	1,549	1,688	1,947	1,975	1,902	2,111	119,266	
929-AFUDC - Equity Regular	106,335	1,223	1,332	1,372	1,384	1,172	1,346	1,397	1,521	1,755	1,780	1,715	1,903	124,234	
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	12,706,509	100,158	102,822	118,198	51,403	99,511	142,182	84,330	172,348	157,556	107,601	148,338	174,892	14,165,849	
825-Clearings	-13,255,705	-54,833	-93,842	-79,576	-165,554	-46,877	-91,677	-75,266	-65,549	-121,857	-155,665	-81,612	-350,230	-14,638,244	
Clr Sum	-13,255,705	-54,833	-93,842	-79,576	-165,554	-46,877	-91,677	-75,266	-65,549	-121,857	-155,665	-81,612	-350,230	-14,638,244	
Proj Net	-549,197	45,324	8,980	38,622	-114,150	52,635	50,505	9,063	106,799	35,699	-48,064	66,726	-175,338	-472,396	

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*Project No: 10000807 Services*

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

Construction Start Date                      1/1/2017                      Estimated Completion Date

List Interim In-Service Dates

Generally, this blanket work order is cleared quarterly; 04-15,07-15,10-15,12-15

Project Need Justification

This project provides for the electrical connection of residential and non-residential customers’ facilities to PNM’s distribution system, primarily within Bernalillo County. The project includes the cost of PNM labor, materials, outside services (contractors), and PNM transportation costs. PNM is obligated to serve customers within its service territory. PNM and the customers' service cost responsibilities are defined within PNM’s Rules and Regulations, specifically Rules 15, 16, and 18 filed with the New Mexico Public Regulatory Commission (NMPRC) pursuant to NMPRC Rule 210.

Project Alternatives

This project is required to provide service to new customers and existing customers upgrading their service. Customers may be served with either an overhead or underground service depending on the distribution system configuration from which they will be served and the customer's preference. For each service to a new residential customer or a non-residential customer served with an overhead service, the point of service location, service wire size and length, and route are defined to maintain service voltage within regulatory requirements. Non-residential customers located in underground electric distribution areas, or residential or non-residential customers located in overhead electric distribution areas but requesting and underground service, are required to provide the service wires per PNM rules.

Technical Aspects

This project includes the installation, connection, and in the case of service retirement, removal costs of overhead and underground conductors leading from the point where PNM wires leave the last pole or distribution box to the point of connection with the residential or non-residential customer. Materials include overhead and underground service wires and associated connecting or terminating parts. Service related materials for the entire Albuquerque metro area (Bernalillo, Sandoval and Valencia counties) are included within this project due to PNM’s centralized warehouse. However, labor and contractor costs for service installations and connections are only include for Albuquerque and unincorporated areas of Bernalillo County. Labor and contractor costs for installation and connection of services in other metro areas are included in their respective services blankets; 14000807 East Mountain Division, 50000807 Valencia Division, and 89900807 Sandoval County Division.

#### Project Estimate Approach

Since the number, length, and types of services to be installed in a given year is unknown at the time of budget preparation, the budget for this blanket is estimated by applying escalation factors to historical spend. The initial budget for this project was developed by applying customer growth and cost escalation factors to the most recent 12-month actual spend (July 2015-June 2016). The customer growth escalation factor is derived from the second quarter reforecast (Q2RF) expected customer growth provided by PNM Strategic Marketing & Product Mgmt. expressed as the percentage change in number of new customers year-over-year. Additionally, labor and non-labor cost components are escalated using annual expected cost increase percentages as supplied by PNM Budget. The typical breakdown of cost by categories is as follows: company labor (26%), outside services (50%), materials (19%), and company transportation (5%). This breakdown can vary over time depending on the number and type of service installations and the amount of work assigned to contractors.

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

Cost Year 01

Project	10000807	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	4,538,178		3,724	13,647	2,264	2,740	91	6,360	4,567,003		
	120-Overtime-General	518,976		3,724	13,173	10,876	2,740	15,887	11,979	577,353		
	350-Material Issues-Major	343,821		24,283	58,636	38,883	32,003	37,054	42,092	576,771		
	370-Outside Services	4,139,033		86,387	86,387	97,617	86,387	86,387	120,942	4,703,141		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	345,774		0	0	0	0	0	0	345,774		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	25,122		0	0	0	0	0	0	25,122		
	610-Expenses - General	-60,737		12,985	10,920	22,625	15,278	15,655	18,345	35,072		
	805-Land and Land Rights	0		0	0	0	0	0	0	0		
	807-Non Refundable Contribution	-26,411		0	-475	-702	0	-231	0	-27,819		
	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	416,549		586	2,111	1,034	431	1,257	1,443	423,412		
	914-Pension and Benefits Load	1,578,419		2,230	8,030	3,934	1,640	4,784	5,491	1,604,528		
	915-Injuries and Damages Load	416,120		486	1,749	857	357	1,042	1,196	421,805		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	119,806		2,700	6,520	4,324	3,559	4,120	4,681	145,710		
	922-Minor Material Load	20,039		0	0	0	0	0	0	20,039		
	925-E and S Loads	2,632,559		24,865	36,011	32,947	26,192	29,999	38,452	2,821,023		
	926-A and G Loads	980,470		10,908	15,206	14,332	11,577	12,902	16,616	1,062,012		
	928-AFUDC Debt Reg	192,973		0	0	0	0	0	0	192,973		
	929-AFUDC - Equity Regular	43,125		0	0	0	0	0	0	43,125		
	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	16,223,817		172,877	251,915	228,990	182,904	208,948	267,595	17,537,046		
	825-Clearings	-21,182,590		-721,576	0	0	-675,362	0	-645,383	-23,224,911		
	Clr Sum	-21,182,590		-721,576	0	0	-675,362	0	-645,383	-23,224,911		
	Proj Net	-4,958,773		-548,699	251,915	228,990	-492,458	208,948	-377,788	-5,687,866		

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

Cost Year 02

Project	10000807	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	4,567,003	43,533	40,198	42,759	41,238	41,127	42,617	44,379	52,642	44,501	50,452	45,865	43,630	5,099,944
120-Overtime-General	577,353	2,038	1,807	1,984	1,879	1,872	1,975	2,097	2,670	2,105	2,518	2,200	2,045	602,543
350-Material Issues-Major	576,771	37,352	33,116	36,370	34,437	34,294	36,188	38,428	48,929	38,582	46,145	40,317	37,483	1,038,412
370-Outside Services	4,703,141	88,807	78,733	86,471	81,873	81,537	86,039	91,363	116,329	91,731	109,711	95,852	89,117	5,800,704
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	345,774	1,051	931	1,023	969	965	1,018	1,081	1,376	1,085	1,298	1,135	1,054	358,760
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	25,122	0	0	0	0	0	0	0	0	0	0	0	0	25,122
610-Expenses - General	35,072	3,729	3,305	3,631	3,437	3,424	3,613	3,836	4,884	3,851	4,606	4,025	3,742	81,155
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-27,819	-202	-180	-197	-187	-185	-196	-208	-266	-209	-250	-219	-203	-30,321
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	423,412	3,573	3,293	3,508	3,380	3,371	3,496	3,644	4,336	3,654	4,153	3,768	3,581	467,169
914-Pension and Benefits Load	1,604,528	12,436	11,463	12,210	11,767	11,734	12,169	12,683	15,095	12,719	14,456	13,117	12,465	1,756,842
915-Injuries and Damages Load	421,805	2,835	2,613	2,783	2,682	2,675	2,774	2,891	3,440	2,899	3,295	2,990	2,841	456,521
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	145,710	6,462	5,729	6,292	5,958	5,933	6,261	6,648	8,465	6,675	7,983	6,975	6,485	225,574
922-Minor Material Load	20,039	0	0	0	0	0	0	0	0	0	0	0	0	20,039
925-E and S Loads	2,821,023	37,508	33,688	36,622	34,879	34,752	36,459	38,477	47,943	38,616	45,434	40,180	37,624	3,283,204
926-A and G Loads	1,062,012	11,861	10,624	11,574	11,010	10,968	11,521	12,176	15,243	12,221	14,430	12,727	11,899	1,208,266
928-AFUDC Debt Reg	192,973	0	0	0	0	0	0	0	0	0	0	0	0	192,973
929-AFUDC - Equity Regular	43,125	0	0	0	0	0	0	0	0	0	0	0	0	43,125
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	17,537,046	250,983	225,320	245,031	233,321	232,467	243,933	257,495	321,086	258,429	304,230	268,932	251,762	20,630,034
825-Clearings	-23,224,911	-120,472	-32,025	-56,884	-365,184	-153,139	-196,938	-160,421	0	-70,980	-977,213	-56,638	-740,537	-26,155,343
Clr Sum	-23,224,911	-120,472	-32,025	-56,884	-365,184	-153,139	-196,938	-160,421	0	-70,980	-977,213	-56,638	-740,537	-26,155,343
Proj Net	-5,687,866	130,511	193,295	188,147	-131,863	79,328	46,995	97,074	321,086	187,449	-672,984	212,294	-488,775	-5,525,309

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

Cost Year 03

Project	10000807	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	5,099,944	34,156	30,281	33,258	31,490	31,360	33,092	35,140	44,742	35,281	42,196	36,866	34,275	5,522,081	
120-Overtime-General	602,543	2,368	2,100	2,307	2,184	2,175	2,295	2,437	3,103	2,446	2,927	2,557	2,376	631,818	
350-Material Issues-Major	1,038,412	43,194	38,293	42,057	39,821	39,658	41,846	44,436	56,580	44,616	53,361	46,620	43,344	1,572,238	
370-Outside Services	5,800,704	102,693	91,043	99,991	94,676	94,287	99,493	105,650	134,518	106,074	126,867	110,841	103,051	7,069,888	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	358,760	1,216	1,077	1,183	1,120	1,115	1,177	1,251	1,592	1,255	1,501	1,311	1,219	373,777	
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	25,122	0	0	0	0	0	0	0	0	0	0	0	0	25,122	
610-Expenses - General	81,155	4,312	3,823	4,198	3,976	3,959	4,177	4,436	5,648	4,453	5,326	4,654	4,326	134,443	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-30,321	-234	-207	-228	-216	-216	-227	-241	-307	-242	-289	-253	-235	-33,216	
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	467,169	2,863	2,539	2,788	2,640	2,629	2,774	2,946	3,751	2,958	3,538	3,091	2,873	502,560	
914-Pension and Benefits Load	1,756,842	9,967	8,837	9,706	9,190	9,152	9,657	10,255	13,057	10,296	12,314	10,759	10,002	1,880,032	
915-Injuries and Damages Load	456,521	2,272	2,014	2,212	2,095	2,086	2,201	2,337	2,976	2,347	2,807	2,452	2,280	484,599	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	225,574	7,473	6,625	7,276	6,889	6,861	7,239	7,687	9,788	7,719	9,231	8,065	7,499	317,926	
922-Minor Material Load	20,039	0	0	0	0	0	0	0	0	0	0	0	0	20,039	
925-E and S Loads	3,283,204	38,984	34,561	37,958	35,941	35,793	37,769	40,107	51,066	40,267	48,161	42,077	39,119	3,765,006	
926-A and G Loads	1,208,266	12,630	11,197	12,297	11,644	11,596	12,236	12,993	16,543	13,045	15,602	13,631	12,673	1,364,353	
928-AFUDC Debt Reg	192,973	0	0	0	0	0	0	0	0	0	0	0	0	192,973	
929-AFUDC - Equity Regular	43,125	0	0	0	0	0	0	0	0	0	0	0	0	43,125	
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	20,630,034	261,894	232,182	255,004	241,448	240,454	253,729	269,434	343,057	270,514	323,542	282,671	262,802	23,866,766	
825-Clearings	-26,155,343	-203,736	-40,761	-66,714	-412,518	-167,452	-211,704	-170,901	0	-75,389	-1,038,201	-59,929	-780,626	-29,383,275	
Clr Sum	-26,155,343	-203,736	-40,761	-66,714	-412,518	-167,452	-211,704	-170,901	0	-75,389	-1,038,201	-59,929	-780,626	-29,383,275	
Proj Net	-5,525,309	58,157	191,421	188,290	-171,070	73,002	42,025	98,533	343,057	195,125	-714,659	222,742	-517,824	-5,516,509	

*Project No: 10000907 Transformers*

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

Construction Start Date                      1/1/2017                      Estimated Completion Date

List Interim In-Service Dates

Generally, blanket work orders of this nature are cleared quarterly.

Project Need Justification

PNM is obligated to provide service to new customers and maintain equitable service to current customers when new load is added to the system. The project enables PNM to meet that obligation by purchasing the transformers necessary to service new and existing customers to meet load and prevent failure.

Project Alternatives

This project is necessary to replace failed equipment and meet new or growing customer needs. Consideration will be given to deciding between serving new customers from existing transformers or installing new transformers to meet voltage and load demands. Outside of these parameters, there are no other alternatives.

Technical Aspects

This project will install distribution transformers that function as the primary method of managing voltage levels to a usable level required by customers. Primary voltages range from 7,200 volts to 13,800 volts while secondary voltages supplied by distribution transformers generally range from 120 volts to 480 volts.

Project Estimate Approach

The specific work items for this blanket will not be known until customer requests for new or upgraded service are received or fail during the budget year. As a result, forecasted spend is developed from historical activity. The project includes labor associated with the installation or exchange of transformers. The initial budget for this project was developed by applying escalation factors to the actual 12 months spend ending June 2016. The resulting forecasted spend is adjusted quarterly as appropriate consistent with the trends in new service and replacement activity.

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

Cost Year 01

Project	10000907	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	1,667,467			26,923	32,978	25,563	19,461	19,748	21,798	1,813,938		
120-Overtime-General	1,092,260			22,935	23,557	17,973	7,029	6,553	9,185	1,179,492		
350-Material Issues-Major	708,602			368,032	304,616	307,044	254,345	265,584	295,554	2,503,777		
370-Outside Services	1,940,455			17,782	21,527	14,804	13,040	14,369	28,696	2,050,673		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	22,401			2,126	1,129	0	1,284	62	2,839	29,842		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	2,591			0	0	0	0	0	0	2,591		
610-Expenses - General	319			21,929	17,952	19,376	11,087	6,807	6,484	83,955		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	-1,382,855			-15,176	-15,364	-7,227	-6,762	-23,920	-30,239	-1,481,543		
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	230,320			3,924	4,449	3,426	2,085	2,070	2,438	248,712		
914-Pension and Benefits Load	845,949			14,928	16,927	13,035	7,931	7,875	9,276	915,919		
915-Injuries and Damages Load	240,582			3,251	3,686	2,839	1,727	1,715	2,020	255,819		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	2,470,547			40,925	33,873	34,143	28,283	29,533	32,866	2,670,171		
922-Minor Material Load	23,284			0	0	0	0	0	0	23,284		
925-E and S Loads	6,072,122			89,139	78,962	74,751	58,828	60,085	69,984	6,503,870		
926-A and G Loads	3,043,876			38,249	33,426	32,012	25,480	26,052	30,331	3,229,426		
928-AFUDC Debt Reg	284			0	0	0	0	0	0	284		
929-AFUDC - Equity Regular	272			0	0	0	0	0	0	272		
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	16,978,474			634,967	557,719	537,739	423,817	416,532	481,233	20,030,482		
825-Clearings	-47,455,876			-1,000,502	-646,276	-559,447	-450,943	-423,414	-587,087	-51,123,544		
Clr Sum	-47,455,876			-1,000,502	-646,276	-559,447	-450,943	-423,414	-587,087	-51,123,544		
Proj Net	-30,477,402			-365,535	-88,556	-21,707	-27,126	-6,882	-105,854	-31,093,062		

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

Cost Year 02

Project	10000907	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	1,813,938	20,544	24,794	19,003	34,314	26,608	35,219	44,759	35,863	36,255	27,828	29,414	20,173	2,168,712	
120-Overtime-General	1,179,492	11,124	13,424	10,289	18,578	14,407	19,069	24,235	19,419	19,629	15,068	15,926	10,923	1,371,583	
350-Material Issues-Major	2,503,777	148,963	179,772	137,792	248,808	192,935	255,366	324,541	260,044	262,881	201,778	213,272	146,277	5,076,206	
370-Outside Services	2,050,673	31,367	37,855	29,015	52,390	40,626	53,773	68,338	54,757	55,354	42,488	44,909	30,801	2,592,346	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	29,842	0	0	0	0	0	0	0	0	0	0	0	0	29,842	
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	2,591	0	0	0	0	0	0	0	0	0	0	0	0	2,591	
610-Expenses - General	83,955	12,745	15,380	11,788	21,287	16,506	21,848	27,767	22,248	22,490	17,263	18,247	12,515	304,039	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-1,481,543	-3,605	-4,350	-3,334	-6,020	-4,668	-6,179	-7,853	-6,291	-6,361	-4,883	-5,160	-3,539	-1,543,786	
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	248,712	2,483	2,996	2,296	4,147	3,216	4,256	5,409	4,334	4,381	3,363	3,555	2,438	291,586	
914-Pension and Benefits Load	915,919	8,642	10,430	7,994	14,434	11,193	14,815	18,828	15,086	15,251	11,706	12,373	8,486	1,065,159	
915-Injuries and Damages Load	255,819	1,970	2,377	1,822	3,290	2,551	3,377	4,291	3,439	3,476	2,668	2,820	1,934	289,834	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	2,670,171	25,771	31,101	23,838	43,044	33,378	44,178	56,146	44,988	45,478	34,908	36,896	25,306	3,115,201	
922-Minor Material Load	23,284	0	0	0	0	0	0	0	0	0	0	0	0	23,284	
925-E and S Loads	6,503,870	45,665	55,109	42,240	76,272	59,144	78,283	99,488	79,717	80,586	61,855	65,379	44,841	7,292,448	
926-A and G Loads	3,229,426	15,103	18,226	13,970	25,225	19,561	25,890	32,904	26,365	26,652	20,457	21,623	14,830	3,490,233	
928-AFUDC Debt Reg	284	0	0	0	0	0	0	0	0	0	0	0	0	284	
929-AFUDC - Equity Regular	272	0	0	0	0	0	0	0	0	0	0	0	0	272	
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	20,030,482	320,771	387,114	296,713	535,769	415,456	549,896	698,854	559,968	566,072	434,500	459,254	314,985	25,569,834	
825-Clearings	-51,123,544	-115,478	-213,267	-243,307	-348,593	-372,664	-436,467	-530,927	-541,381	-550,270	-508,593	-490,831	-866,929	-56,342,251	
Clr Sum	-51,123,544	-115,478	-213,267	-243,307	-348,593	-372,664	-436,467	-530,927	-541,381	-550,270	-508,593	-490,831	-866,929	-56,342,251	
Proj Net	-31,093,062	205,293	173,848	53,406	187,175	42,792	113,428	167,927	18,586	15,802	-74,093	-31,577	-551,943	-30,772,417	

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

Cost Year 03

Project	10000907	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	2,168,712	26,544	32,034	24,554	32,959	25,558	33,828	42,991	34,447	34,823	26,729	28,252	26,065	2,537,496
120-Overtime-General	1,371,583	14,372	17,345	13,294	17,845	13,838	18,316	23,277	18,651	18,855	14,472	15,297	14,113	1,571,257
350-Material Issues-Major	5,076,206	191,524	231,137	177,162	237,810	184,407	244,079	310,195	248,549	251,260	192,858	203,845	188,070	7,737,104
370-Outside Services	2,592,346	40,329	48,670	37,305	50,075	38,830	51,395	65,317	52,337	52,908	40,610	42,923	39,602	3,152,648
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	29,842	0	0	0	0	0	0	0	0	0	0	0	0	29,842
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	2,591	0	0	0	0	0	0	0	0	0	0	0	0	2,591
610-Expenses - General	304,039	16,386	19,775	15,157	20,346	15,777	20,882	26,539	21,265	21,497	16,500	17,440	16,090	531,694
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-1,543,786	-4,634	-5,592	-4,286	-5,754	-4,462	-5,905	-7,505	-6,013	-6,079	-4,666	-4,932	-4,550	-1,608,164
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	291,586	3,208	3,871	2,967	3,983	3,089	4,088	5,195	4,163	4,208	3,230	3,414	3,150	336,154
914-Pension and Benefits Load	1,065,159	11,166	13,475	10,329	13,864	10,751	14,230	18,085	14,491	14,649	11,244	11,884	10,965	1,220,291
915-Injuries and Damages Load	289,834	2,545	3,071	2,354	3,160	2,450	3,243	4,122	3,303	3,339	2,563	2,709	2,499	325,192
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	3,115,201	33,134	39,987	30,649	41,141	31,902	42,226	53,664	42,999	43,468	33,365	35,265	32,536	3,575,536
922-Minor Material Load	23,284	0	0	0	0	0	0	0	0	0	0	0	0	23,284
925-E and S Loads	7,292,448	58,766	70,921	54,359	72,968	56,582	74,892	95,179	76,263	77,095	59,176	62,547	57,706	8,108,903
926-A and G Loads	3,490,233	19,431	23,450	17,974	24,127	18,709	24,763	31,471	25,217	25,492	19,567	20,681	19,081	3,760,196
928-AFUDC Debt Reg	284	0	0	0	0	0	0	0	0	0	0	0	0	284
929-AFUDC - Equity Regular	272	0	0	0	0	0	0	0	0	0	0	0	0	272
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	25,569,834	412,772	498,145	381,819	512,526	397,431	526,038	668,530	535,670	541,514	415,647	439,326	405,327	31,304,578
825-Clearings	-56,342,251	-264,030	-348,311	-360,374	-415,149	-408,771	-450,987	-529,302	-531,595	-535,166	-492,139	-473,126	-448,719	-61,599,919
Clr Sum	-56,342,251	-264,030	-348,311	-360,374	-415,149	-408,771	-450,987	-529,302	-531,595	-535,166	-492,139	-473,126	-448,719	-61,599,919
Proj Net	-30,772,417	148,742	149,834	21,445	97,377	-11,339	75,051	139,228	4,075	6,348	-76,492	-33,800	-43,391	-30,295,340

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**Project No: 10001007 Meter Equipment**

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

Construction Start Date                      1/1/2017                      Estimated Completion Date  
List Interim In-Service Dates  
N/A

Project Need Justification

This project involves metering equipment purchases for new service, maintenance, routine replacement, meter retirement as required by the New Mexico Administrative Code (NMAC) 17.9.560.14 in Metro Albuquerque, Santa Fe, Las Vegas, Clayton, Deming, Blackwater Station (Clovis) and San Juan Plant. This project ensures that PNM is accurately monitoring energy consumption to provide customers with timely and accurate bills.

Project Alternatives

To be able to meet PNM’s obligation to its customers and to maintain system reliability there is not an alternative to purchasing metering equipment. Alternatives will be evaluated at a project manager level and could alternatively involve refurbishment of material to continue to meet accuracy parameters and meet the stipulations of the In-Service Performance Testing of Revenue Meters Periodic and Statistical Sampling Plan (Superseding Application and Stipulation of Case 2124 10/09/1987).

Technical Aspects

Single and three phase solid state meters will be used as necessary with remote communication capabilities in addition to current and voltage transformers used to provide safe and accurate monitoring of higher voltage loads. Test switches will be installed that can interrupt the flow of current to safely allow testing of equipment on site, and wire, lugs and nuts will be provided to securely connect transformer equipment to metering equipment.

Project Estimate Approach

The estimated costs for this project are based on the three categories:1. Normal: classified as new service, maintenance, routines.2. Retirements: include planned and unplanned removal of meter equipment due to damage, NMAC 17.9.560 required maintenance;3. Replacements: include meters that fail the in-service performance testing criteria (NMAC 17.9.560.14 (E)).The estimates for all three categories are based on labor and non-labor costs. The Normal category is calculated using the preceding 12 month actual charges for labor and materials for this type of work then escalated by negotiated labor increase percentages and projected growth rates provide by the Financial Planning and Business Analysis group, below are the rates used:

											Year	New
Cust.	Labor	Non-labor	Material	2015	0.6%	2.0%	0.0%	2.4%	2016	34%	2.0%	1.5%

1.3% 2017 26% 2.0% 1.5% 1.2% 2018 1.0% 2.0% 1.5% 1.0% 2019 1.0% 2.0%  
1.5% 0.9% The Retirements category is calculated based on an 25% of the average number of actual retirements over the past 5 years. These quantities are multiplied by an average cost per meter for labor and transportation. The Replacements category includes a specific quantity of meters that failed to meet acceptable accuracy criteria during an in-service performance testing plan. With meters on a four year removal plan the total number of in-service meters to be removed are identified then divided by four to give a per year quantity to be removed. All estimates for this category are for non-labor. Meter cost is based on the preferred vendor quotes of current year.

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

Cost Year 01

Project	10001007	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	753,072			25,039	23,610	30,616	15,962	13,308	12,101	873,708		
120-Overtime-General	25,933			0	0	0	0	0	0	25,933		
350-Material Issues-Major	785,751			20,165	21,128	22,915	18,215	13,115	8,545	889,834		
370-Outside Services	63			0	0	0	0	0	0	63		
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	1,072			0	0	0	0	0	0	1,072		
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	-24,135			0	0	0	0	0	0	-24,135		
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	65,262			1,971	1,858	2,409	1,256	1,047	952	74,756		
914-Pension and Benefits Load	237,879			7,497	7,069	9,166	4,779	3,984	3,623	273,997		
915-Injuries and Damages Load	67,894			1,633	1,539	1,996	1,041	868	789	75,759		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	764,180			2,242	2,349	2,548	2,026	1,458	950	775,754		
922-Minor Material Load	30,145			0	0	0	0	0	0	30,145		
925-E and S Loads	2,021,764			10,416	10,213	12,414	7,632	5,980	4,812	2,073,230		
926-A and G Loads	1,711,130			3,761	3,722	4,454	2,844	2,198	1,718	1,729,827		
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	6,440,009			72,723	71,489	86,519	53,754	41,959	33,490	6,799,943		
825-Clearings	-17,198,973			-163,727	-80,713	-85,938	-56,972	-43,460	-38,319	-17,668,103		
Clr Sum	-17,198,973			-163,727	-80,713	-85,938	-56,972	-43,460	-38,319	-17,668,103		
Proj Net	-10,758,965			-91,003	-9,224	581	-3,218	-1,501	-4,829	-10,868,160		

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

Cost Year 02

Project	10001007	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	873,708	3,098	5,164	33,765	25,148	23,808	32,573	21,808	26,000	25,456	8,139	5,426	4,383	1,088,476	
120-Overtime-General	25,933	0	0	0	0	0	0	0	0	0	0	0	0	25,933	
350-Material Issues-Major	889,834	30,981	34,079	51,339	59,999	54,573	40,382	40,382	38,191	33,600	39,339	27,339	27,339	1,367,376	
370-Outside Services	63	0	0	0	0	0	0	0	0	0	0	0	0	63	
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	1,072	0	0	0	0	0	0	0	0	0	0	0	0	1,072	
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	-24,135	0	0	0	0	0	0	0	0	0	0	0	0	-24,135	
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	74,756	243	405	2,647	1,972	1,867	2,554	1,710	2,038	1,996	638	425	344	91,594	
914-Pension and Benefits Load	273,997	845	1,409	9,214	6,863	6,497	8,889	5,952	7,095	6,947	2,221	1,481	1,196	332,607	
915-Injuries and Damages Load	75,759	193	321	2,100	1,564	1,481	2,026	1,356	1,617	1,583	506	337	273	89,118	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	775,754	5,360	5,896	8,882	10,380	9,441	6,986	6,986	6,607	5,813	6,806	4,730	4,730	858,369	
922-Minor Material Load	30,145	0	0	0	0	0	0	0	0	0	0	0	0	30,145	
925-E and S Loads	2,073,230	6,789	7,945	19,021	18,345	16,939	16,594	13,672	14,389	13,360	9,762	6,722	6,438	2,223,204	
926-A and G Loads	1,729,827	2,290	2,637	5,719	5,722	5,267	4,903	4,179	4,314	3,969	3,191	2,202	2,132	1,776,350	
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	6,799,943	49,799	57,856	132,686	129,992	119,874	114,907	96,046	100,251	92,723	70,601	48,662	46,833	7,860,172	
825-Clearings	-17,668,103	-44,819	-56,552	-104,227	-131,787	-106,975	-112,527	-115,417	-90,373	-92,018	-88,030	-56,535	-60,967	-18,728,332	
Clr Sum	-17,668,103	-44,819	-56,552	-104,227	-131,787	-106,975	-112,527	-115,417	-90,373	-92,018	-88,030	-56,535	-60,967	-18,728,332	
Proj Net	-10,868,160	4,980	1,304	28,459	-1,796	12,899	2,380	-19,372	9,877	705	-17,429	-7,874	-14,134	-10,868,160	

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

Cost Year 03

Project	10001007	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	1,088,476	3,302	5,539	11,185	25,673	33,450	34,215	33,463	31,752	22,264	8,309	5,539	4,474	1,307,644	
120-Overtime-General	25,933	0	0	0	0	0	0	0	0	0	0	0	0	25,933	
350-Material Issues-Major	1,367,376	33,450	36,752	52,412	61,253	55,714	41,226	41,226	38,989	34,302	40,161	27,910	27,910	1,858,681	
370-Outside Services	63	0	0	0	0	0	0	0	0	0	0	0	0	63	
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	1,072	0	0	0	0	0	0	0	0	0	0	0	0	1,072	
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	-24,135	0	0	0	0	0	0	0	0	0	0	0	0	-24,135	
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	91,594	259	434	877	2,013	2,622	2,682	2,624	2,489	1,746	651	434	351	108,776	
914-Pension and Benefits Load	332,607	901	1,512	3,052	7,006	9,128	9,337	9,132	8,665	6,076	2,268	1,512	1,221	392,418	
915-Injuries and Damages Load	89,118	205	345	696	1,597	2,081	2,128	2,081	1,975	1,385	517	345	278	102,750	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	858,369	5,787	6,358	9,067	10,597	9,639	7,132	7,132	6,745	5,934	6,948	4,828	4,828	943,365	
922-Minor Material Load	30,145	0	0	0	0	0	0	0	0	0	0	0	0	30,145	
925-E and S Loads	2,223,204	7,319	8,560	13,099	18,728	19,775	17,201	16,997	16,103	12,628	9,966	6,862	6,573	2,377,015	
926-A and G Loads	1,776,350	2,470	2,842	4,274	5,841	5,992	5,070	5,019	4,754	3,801	3,257	2,248	2,176	1,824,094	
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	7,860,172	53,693	62,342	94,662	132,709	138,400	118,992	117,675	111,473	88,136	72,077	49,679	47,812	8,947,820	
825-Clearings	-18,728,332	-37,585	-54,915	-82,738	-134,534	-120,424	-119,421	-118,199	-129,703	-84,393	-75,772	-57,507	-72,458	-19,815,980	
Clr Sum	-18,728,332	-37,585	-54,915	-82,738	-134,534	-120,424	-119,421	-118,199	-129,703	-84,393	-75,772	-57,507	-72,458	-19,815,980	
Proj Net	-10,868,160	16,108	7,427	11,924	-1,825	17,977	-430	-524	-18,231	3,743	-3,695	-7,828	-24,646	-10,868,160	

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*Project No: 10001207 Pole Replacement*

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date

List Interim In-Service Dates

Project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

The NMPRC mandates that PNM keep the electric infrastructure in good repair and safe for customers and employees. Compromised integrity of wooden pole structures can affect reliability of service as well as public safety and the safety of PNM employees who may need to climb poles for maintenance. PNM regularly performs ground line tests on its distribution wood pole infrastructure to ensure the integrity of PNM’s distribution system. Wood poles that fail the tests are replaced or reinforced based on the testing results. This project covers the labor and material costs associated with the testing, replacement and repair of defective poles.

Project Alternatives

The alternatives to pole replacement include structurally reinforcing the pole, fumigating the pole and area, or applying an internal void treatment. The testing of each pole determines the condition of the pole and identifies the appropriate alternative for replacing a defective pole.

Technical Aspects

This project includes pole replacement, pole reinforcement, and fumigation. This capital blanket assures that the distribution wood pole infrastructure is replaced or reinforced based on ground line testing results. Poles are given a series of tests including visual, sounding, and borehole inspections to determine the condition of the pole and the requisite course of action.

Project Estimate Approach

The budget for this blanket is estimated by applying escalation factors to historical spend. The initial budget for this project was developed by applying labor and non-labor cost escalation factors to the most recent 12-month actual spend (July 2015-June 2016). The typical breakdown of cost by categories is as follows: outside services (80%), company labor (6%), materials (12%), and company transportation (2%). This breakdown can fluctuate depending on the use of PNM line crews or contract crews for the work, the actual percentage of poles that need replacement vs. reinforcement, and the types & configuration of the poles requiring work. Poles that support four or more wires are more costly to work than are poles supporting only two wires. Similarly, angle or corner poles are more expensive to replace than are in-line tangent poles. Location and access to the poles, such as backyard vs. roadside, also affects costs.



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

Cost Year 01

Project	10001207	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	312,965			4,316	5,354	5,788	2,567	6,002	3,227	340,219		
120-Overtime-General	58,261			66	159	3,359	0	375	167	62,387		
350-Material Issues-Major	530,837			1,852	1,882	5,244	1,433	4,048	2,156	547,452		
370-Outside Services	2,137,983			40,747	33,859	71,210	3,641	5,241	32,969	2,325,650		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	42,738			706	706	706	0	0	0	44,855		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	380			0	0	0	0	0	0	380		
610-Expenses - General	0			1,115	1,606	2,880	239	2,475	1,117	9,433		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	-3,974			0	0	0	0	0	0	-3,974		
829-Construction Adjustment	0			0	0	0	-1,119	-1,030	-1,030	-3,180		
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	30,151			345	434	720	202	502	267	32,620		
914-Pension and Benefits Load	114,651			1,312	1,651	2,739	769	1,909	1,016	124,046		
915-Injuries and Damages Load	31,485			286	359	596	167	416	221	33,530		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	76,718			206	209	583	159	450	240	78,566		
922-Minor Material Load	35,508			0	0	0	0	0	0	35,508		
925-E and S Loads	464,208			9,388	8,512	17,250	1,668	3,879	7,611	512,515		
926-A and G Loads	238,249			4,060	3,625	7,420	656	1,509	3,298	258,817		
928-AFUDC Debt Reg	59,468			273	357	490	537	492	498	62,116		
929-AFUDC - Equity Regular	68,765			295	387	531	582	533	539	71,632		
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	4,198,393			64,966	59,099	119,517	11,502	26,802	52,294	4,532,573		
825-Clearings	-4,327,020			-24,607	-30,126	-44,429	-39,160	-37,183	-39,601	-4,542,127		
Cir Sum	-4,327,020			-24,607	-30,126	-44,429	-39,160	-37,183	-39,601	-4,542,127		
Proj Net	-128,627			40,358	28,973	75,088	-27,658	-10,381	12,693	-9,554		

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

Cost Year 02

Project	10001207	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	340,219	484	400	659	166	230	724	822	1,241	741	856	896	928	348,366	
120-Overtime-General	62,387	480	396	653	164	228	537	317	1,230	620	849	889	920	69,670	
350-Material Issues-Major	547,452	2,485	2,052	3,381	848	1,179	2,781	1,640	6,370	3,210	4,396	4,600	4,761	585,155	
370-Outside Services	2,325,650	12,575	10,383	17,114	4,290	5,970	14,075	8,299	32,235	16,243	22,247	23,279	24,094	2,516,454	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	44,855	271	223	368	93	129	303	179	694	350	479	501	519	48,964	
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	380	0	0	0	0	0	0	0	0	0	0	0	0	380	
610-Expenses - General	9,433	314	259	428	107	149	351	207	805	405	556	581	602	14,197	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-3,974	0	0	0	0	0	0	0	0	0	0	0	0	-3,974	
829-Construction Adjustment	-3,180	-1,321	-1,233	0	0	0	0	0	0	0	0	0	0	-5,734	
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	32,620	76	62	103	26	36	99	89	194	107	134	140	145	33,830	
914-Pension and Benefits Load	124,046	263	217	358	90	125	344	311	674	371	465	487	504	128,257	
915-Injuries and Damages Load	33,530	60	50	82	21	28	78	71	154	85	106	111	115	34,490	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	78,566	430	355	585	147	204	481	284	1,102	555	761	796	824	85,088	
922-Minor Material Load	35,508	0	0	0	0	0	0	0	0	0	0	0	0	35,508	
925-E and S Loads	512,515	3,265	2,696	4,444	1,114	1,550	3,704	2,292	8,371	4,249	5,777	6,045	6,257	562,280	
926-A and G Loads	258,817	1,116	922	1,519	381	530	1,261	770	2,861	1,449	1,975	2,066	2,139	275,806	
928-AFUDC Debt Reg	62,116	569	525	501	465	415	394	380	411	445	458	482	506	67,666	
929-AFUDC - Equity Regular	71,632	746	688	657	610	544	517	499	539	584	600	632	663	78,912	
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	4,532,573	21,812	17,995	30,851	8,522	11,317	25,650	16,159	56,880	29,415	39,658	41,505	42,977	4,875,314	
825-Clearings	-4,542,127	-36,755	-33,753	-33,289	-29,326	-26,445	-26,318	-24,692	-29,842	-29,774	-31,355	-32,979	-34,579	-4,911,233	
Clr Sum	-4,542,127	-36,755	-33,753	-33,289	-29,326	-26,445	-26,318	-24,692	-29,842	-29,774	-31,355	-32,979	-34,579	-4,911,233	
Proj Net	-9,554	-14,942	-15,758	-2,438	-20,804	-15,127	-667	-8,533	27,038	-359	8,303	8,525	8,398	-35,919	

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

Cost Year 03

Project	10001207	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	348,366	863	713	1,175	294	409	966	569	2,212	1,115	1,527	1,498	1,400	361,107	
120-Overtime-General	69,670	856	707	1,164	292	406	958	565	2,193	1,105	1,514	1,584	1,639	82,652	
350-Material Issues-Major	585,155	4,408	3,640	5,999	1,503	2,092	4,933	2,909	11,298	5,693	7,797	8,159	8,444	652,028	
370-Outside Services	2,516,454	22,303	18,416	30,353	7,608	10,589	24,963	14,719	57,172	28,809	39,457	41,288	42,733	2,854,865	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	48,964	480	396	654	163	228	538	316	1,231	620	849	888	919	56,247	
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	380	0	0	0	0	0	0	0	0	0	0	0	0	380	
610-Expenses - General	14,197	557	460	759	190	265	624	367	1,428	720	986	1,031	1,067	22,650	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-3,974	0	0	0	0	0	0	0	0	0	0	0	0	-3,974	
829-Construction Adjustment	-5,734	0	0	0	0	0	0	0	0	0	0	0	0	-5,734	
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	33,830	135	111	183	46	64	151	89	345	174	238	242	238	35,847	
914-Pension and Benefits Load	128,257	469	387	638	160	222	525	310	1,202	606	830	841	829	135,277	
915-Injuries and Damages Load	34,490	107	88	145	36	51	120	71	274	138	189	192	189	36,090	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	85,088	762	630	1,038	260	362	853	503	1,955	985	1,349	1,411	1,461	96,657	
922-Minor Material Load	35,508	0	0	0	0	0	0	0	0	0	0	0	0	35,508	
925-E and S Loads	562,280	5,794	4,784	7,885	1,976	2,751	6,485	3,824	14,852	7,484	10,250	10,699	11,032	650,096	
926-A and G Loads	275,806	1,980	1,635	2,695	675	940	2,216	1,307	5,076	2,558	3,503	3,659	3,777	305,827	
928-AFUDC Debt Reg	67,666	525	527	549	538	493	493	497	577	661	703	762	818	74,807	
929-AFUDC - Equity Regular	78,912	473	475	495	485	444	444	448	520	596	633	686	737	85,349	
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	4,875,314	39,712	32,971	53,732	14,228	19,317	44,268	26,493	100,334	51,264	69,823	72,940	75,285	5,475,681	
825-Clearings	-4,911,233	-35,400	-35,011	-38,007	-34,202	-31,820	-33,812	-32,641	-43,472	-44,719	-48,735	-52,608	-56,236	-5,397,898	
Clr Sum	-4,911,233	-35,400	-35,011	-38,007	-34,202	-31,820	-33,812	-32,641	-43,472	-44,719	-48,735	-52,608	-56,236	-5,397,898	
Proj Net	-35,919	4,312	-2,041	15,725	-19,974	-12,504	10,456	-6,148	56,862	6,545	21,087	20,332	19,048	77,783	

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*Project No: 10001307 Cable Replacement*

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date

List Interim In-Service Dates

This project consists of multiple individual work orders which are placed in service at various times throughout the year.

Project Need Justification

This project provides for the emergent replacement of failing underground distribution cable. Emergent cable replacements address those cables which experience failures of their insulation causing multiple outages over a short period of time and/or impacting a large number of customers. Approximately 54% of the distribution is built as underground construction. Underground cable has a life expectancy of 30-40 years. The risk of not replacing aging and failing cable includes more frequent and extended power outages which adversely affect reliability and customer satisfaction.

Project Alternatives

An alternative to replacing failing cable is to inject a substance to improve the integrity of insulation materials and extend the life of the cable. This technique has shortcomings as it does not address potential problems with cable splices made during installation or the ends of cable where terminating equipment is installed. Cable testing is another alternative, providing predictive identification of cable failures before they occur, specifically targeting the replacement of cable segments. PNM utilizes such cable testing and cable segments identified through testing as needing replacement are replaced under funding provided by projects 60003116 and 60003117. However, PNM currently test cables on a schedule of once per year. This testing period typically last a little more than a month. In between annual testing there may be cable segments that experience rapid deterioration and multiple faults within a short time period. These cable segments will be replaced utilizing the funding provided by this project.

Technical Aspects

Cable is replaced either by pulling the cable from existing conduit and replacing it with new cable or, in the case of direct buried cable, by installing new conduit using directional boring equipment and pulling cable in the newly installed conduit. In some cases the new cable is installed along new routes to reduce the difficulty of the installation and/or future maintenance issues.

Project Estimate Approach

Projects are estimated at the time they are identified. Standard procedures are used to estimate labor and materials, contractor bids are typically solicited for the boring and excavation work. Direct project costs are typically 13% labor, 42% materials, 39% outside services, and 6% transportation.

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

Cost Year 01

Project	10001307	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	608,073			773	858	639	723	538	617	612,222		
120-Overtime-General	40,074			3	114	10	118	216	147	40,683		
350-Material Issues-Major	2,186,207			2,465	7,480	14,531	3,859	2,455	526	2,217,522		
370-Outside Services	8,668,423			10,996	21,669	15,955	21,516	11,036	19,520	8,769,114		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	3,740			0	0	0	0	0	0	3,740		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	89			0	0	0	0	0	0	89		
610-Expenses - General	0			281	191	351	299	232	250	1,604		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	-24,786			0	0	0	0	0	0	-24,786		
829-Construction Adjustment	0			0	0	0	-598	-508	-441	-1,546		
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	53,956			61	77	51	66	59	60	54,330		
914-Pension and Benefits Load	204,772			232	291	194	252	226	229	206,197		
915-Injuries and Damages Load	54,042			51	63	42	55	49	50	54,352		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	435,806			274	832	1,616	429	273	59	439,288		
922-Minor Material Load	151,954			0	0	0	0	0	0	151,954		
925-E and S Loads	1,891,107			2,749	5,688	5,878	4,974	2,740	3,959	1,917,096		
926-A and G Loads	795,845			1,208	2,522	2,620	2,206	1,205	1,752	807,357		
928-AFUDC Debt Reg	183,766			71	108	201	287	243	210	184,885		
929-AFUDC - Equity Regular	146,028			77	117	217	311	263	228	147,240		
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	15,399,095			19,241	40,010	42,305	34,496	19,028	27,166	15,581,341		
825-Clearings	-15,805,592			-13,191	0	0	-46,350	-37,607	-34,266	-15,937,005		
Clr Sum	-15,805,592			-13,191	0	0	-46,350	-37,607	-34,266	-15,937,005		
Proj Net	-406,497			6,049	40,010	42,305	-11,853	-18,579	-7,100	-355,665		

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

Cost Year 02

Project	10001307	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	612,222	693	1,539	7,918	6,379	1,964	7,350	1,103	13,210	14,325	14,064	11,634	7,998	700,399
120-Overtime-General	40,683	103	229	1,177	948	292	1,093	164	1,964	2,129	2,091	1,729	1,189	53,790
350-Material Issues-Major	2,217,522	1,244	2,763	14,217	11,454	3,526	13,198	1,981	23,718	25,720	25,253	20,890	14,360	2,375,846
370-Outside Services	8,769,114	3,828	8,501	43,742	35,242	10,849	40,608	6,095	72,977	79,136	77,699	64,273	44,183	9,256,248
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	3,740	0	0	0	0	0	0	0	0	0	0	0	0	3,740
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	89	0	0	0	0	0	0	0	0	0	0	0	0	89
610-Expenses - General	1,604	343	762	3,919	3,157	972	3,638	546	6,538	7,089	6,961	5,758	3,958	45,244
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-24,786	0	0	0	0	0	0	0	0	0	0	0	0	-24,786
829-Construction Adjustment	-1,546	-467	-394	0	0	0	0	0	0	0	0	0	0	-2,407
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	54,330	62	139	713	574	177	662	99	1,190	1,290	1,267	1,048	720	62,271
914-Pension and Benefits Load	206,197	217	482	2,482	2,000	616	2,304	346	4,141	4,490	4,409	3,647	2,507	233,837
915-Injuries and Damages Load	54,352	50	110	566	456	140	525	79	944	1,023	1,005	831	571	60,652
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	439,288	215	478	2,459	1,982	610	2,283	343	4,103	4,450	4,369	3,614	2,484	466,678
922-Minor Material Load	151,954	0	0	0	0	0	0	0	0	0	0	0	0	151,954
925-E and S Loads	1,917,096	1,256	2,789	14,349	11,561	3,559	13,321	1,999	23,939	25,959	25,488	21,084	14,493	2,076,890
926-A and G Loads	807,357	417	927	4,769	3,843	1,183	4,428	665	7,957	8,628	8,472	7,008	4,817	860,471
928-AFUDC Debt Reg	184,885	200	168	257	362	348	375	354	463	686	847	915	878	190,739
929-AFUDC - Equity Regular	147,240	263	220	337	475	456	492	464	608	900	1,111	1,201	1,152	154,919
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	15,581,341	8,424	18,711	96,904	78,433	24,691	90,277	14,237	161,751	175,827	173,034	143,632	99,312	16,666,574
825-Clearings	-15,937,005	-25,996	-23,665	-47,101	-57,128	-46,748	-60,677	-45,816	-82,915	-112,647	-131,971	-135,702	-124,057	-16,831,431
Clr Sum	-15,937,005	-25,996	-23,665	-47,101	-57,128	-46,748	-60,677	-45,816	-82,915	-112,647	-131,971	-135,702	-124,057	-16,831,431
Proj Net	-355,665	-17,572	-4,954	49,802	21,306	-22,057	29,600	-31,579	78,835	63,180	41,063	7,929	-24,746	-164,857

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

Cost Year 03

Project	10001307	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	700,399	153	340	1,751	1,411	434	1,626	244	2,922	3,169	3,111	2,574	1,769	719,904	
120-Overtime-General	53,790	23	51	260	210	65	242	36	434	471	462	383	263	56,690	
350-Material Issues-Major	2,375,846	274	608	3,129	2,521	776	2,905	436	5,221	5,661	5,559	4,598	3,161	2,410,696	
370-Outside Services	9,256,248	843	1,871	9,628	7,757	2,388	8,938	1,342	16,064	17,419	17,103	14,148	9,725	9,363,474	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	3,740	0	0	0	0	0	0	0	0	0	0	0	0	3,740	
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	89	0	0	0	0	0	0	0	0	0	0	0	0	89	
610-Expenses - General	45,244	75	168	863	695	214	801	120	1,439	1,561	1,532	1,267	871	54,850	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-24,786	0	0	0	0	0	0	0	0	0	0	0	0	-24,786	
829-Construction Adjustment	-2,407	0	0	0	0	0	0	0	0	0	0	0	0	-2,407	
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	62,271	14	31	158	127	39	146	22	263	285	280	232	159	64,028	
914-Pension and Benefits Load	233,837	48	107	549	442	136	510	76	916	993	975	807	555	239,951	
915-Injuries and Damages Load	60,652	11	24	125	101	31	116	17	209	226	222	184	126	62,046	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	466,678	47	105	541	436	134	503	75	903	979	962	795	547	472,707	
922-Minor Material Load	151,954	0	0	0	0	0	0	0	0	0	0	0	0	151,954	
925-E and S Loads	2,076,890	277	614	3,161	2,547	784	2,935	440	5,274	5,719	5,615	4,645	3,193	2,112,094	
926-A and G Loads	860,471	92	204	1,050	846	261	975	146	1,753	1,900	1,866	1,544	1,061	872,169	
928-AFUDC Debt Reg	190,739	691	479	359	286	218	179	144	147	182	208	216	203	194,052	
929-AFUDC - Equity Regular	154,919	623	432	323	258	196	162	130	133	164	187	195	183	157,905	
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	16,666,574	3,171	5,034	21,899	17,639	5,676	20,037	3,230	35,677	38,731	38,083	31,586	21,817	16,909,154	
825-Clearings	-16,831,431	-85,374	-59,665	-47,580	-37,999	-27,656	-25,218	-18,182	-23,780	-28,564	-31,610	-31,603	-28,471	-17,277,132	
Clr Sum	-16,831,431	-85,374	-59,665	-47,580	-37,999	-27,656	-25,218	-18,182	-23,780	-28,564	-31,610	-31,603	-28,471	-17,277,132	
Proj Net	-164,857	-82,203	-54,631	-25,681	-20,360	-21,979	-5,180	-14,952	11,897	10,166	6,472	-16	-6,654	-367,978	

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**Project No: 10001707 Albuquerque Pure Project**

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date

List Interim In-Service Dates

Completion will occur at various times throughout the year.

Project Need Justification

The Automated Line Patrols (ALPS) process identified a large quantity of work needed for repairing and replacing aging overhead distribution construction components. The work includes cost for internal labor, material, transportation, and contractors. This work is necessary to maintain reliable service and reduce hazards to the public and PNM line crews. NMPRC Rule 17.9.560, Service Standards for Electric Utilities Rules, outlines requirements for following electrical and safety standards (National Electric Safety Code), minimizing interruption of service, and protective safety measures. Not performing this work may decrease reliability and increase hazards to PNM personnel and the public.

Project Alternatives

No alternatives are available for this project, as it is necessary to ensure system reliability and minimize hazardous risks to PNM personnel and the public. All projects are sorted by priority in terms of condition and immediate impact to the system upon failure. High risk projects that would greatly impact the system if there is a failure are addressed immediately. The work identified that does not create an immediate hazard or pose imminent failure risk is scheduled based upon the level of deterioration or condition of the equipment and also the overall circuit performance in terms of number of outages and customers affected. As this work is not of immediate priority, work can be reasonably delayed if higher priority work exists or internal or contractor crews are limited.

Technical Aspects

This project involves the like-for-like replacement of aging/obsolete or damaged equipment on distribution poles. Physical items identified for replacement include lightning arrestors, cross-arms, cut-outs, capacitors, and insulators.

Project Estimate Approach

Project work is identified through line patrols and estimates of the work are developed through the database where the information is collected. The project's annual spend was initially established to complete the backlog of work over a five year period but has since been adjusted annually and quarterly as necessary based upon variability in other distribution line construction work and availability of line crews. The work is identified by distribution lines (feeders). Those feeders which experience higher numbers of outages and impact the greatest number of customers are given higher priority scheduling. The typical breakdown of cost by categories is as follows: company labor (13%), outside services (75%), materials (10%), and company transportation (2%).



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

Cost Year 01

Project	10001707	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	275,555		4,039	3,455	2,870	5,013	5,017	7,070	303,019		
	120-Overtime-General	486,499		0	0	0	0	0	0	486,499		
	350-Material Issues-Major	506,828		11,646	21,079	3,615	18,958	16,460	13,374	591,960		
	370-Outside Services	5,374,832		202,101	131,612	89,815	248,898	77,914	59,312	6,184,484		
	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	105		0	0	0	0	0	0	105		
	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	55,814		318	272	226	395	395	556	57,975		
	914-Pension and Benefits Load	207,123		1,209	1,034	859	1,501	1,502	2,117	215,346		
	915-Injuries and Damages Load	53,079		263	225	187	327	327	461	54,870		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	197,590		1,295	2,344	402	2,108	1,830	1,487	207,056		
	922-Minor Material Load	37,531		0	0	0	0	0	0	37,531		
	925-E and S Loads	1,047,977		40,622	29,170	18,051	50,892	18,799	15,335	1,220,845		
	926-A and G Loads	566,190		18,120	12,991	8,012	22,703	8,269	6,636	642,921		
	928-AFUDC Debt Reg	4,109		0	0	0	0	0	0	4,109		
	929-AFUDC - Equity Regular	5,937		0	0	0	0	0	0	5,937		
	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	8,819,169		279,613	202,183	124,037	350,794	130,514	106,348	10,012,658		
	825-Clearings	-8,934,719		-255,149	0	0	-745,731	0	-338,635	-10,274,234		
	Clr Sum	-8,934,719		-255,149	0	0	-745,731	0	-338,635	-10,274,234		
	Proj Net	-115,550		24,464	202,183	124,037	-394,937	130,514	-232,288	-261,577		

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

Cost Year 02

Project	10001707	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	303,019	10,242	6,611	10,003	18,069	23,039	17,117	4,042	3,458	2,873	5,017	5,022	7,075	415,587
120-Overtime-General	486,499	3,442	381	66,416	30,977	17,337	7,235	0	0	0	0	0	0	612,287
350-Material Issues-Major	591,960	2,415	33,996	22,061	44,049	20,323	20,943	11,656	21,097	3,619	18,974	16,475	13,385	820,951
370-Outside Services	6,184,484	184,079	175,685	246,740	297,602	427,842	253,127	256,181	185,631	143,797	303,019	131,885	116,744	8,906,817
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	105	0	0	0	0	0	0	0	0	0	0	0	0	105
610-Expenses - General	0	4,467	2,106	16,987	12,740	13,270	6,745	0	0	0	0	0	0	56,315
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	57,975	1,073	548	5,991	3,845	3,166	1,909	317	271	225	393	394	555	76,662
914-Pension and Benefits Load	215,346	3,734	1,908	20,855	13,385	11,019	6,645	1,103	944	784	1,369	1,371	1,931	280,393
915-Injuries and Damages Load	54,870	851	435	4,753	3,051	2,511	1,515	251	215	179	312	312	440	69,695
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	207,056	418	5,881	3,817	7,620	3,516	3,623	2,017	3,650	626	3,283	2,850	2,316	246,672
922-Minor Material Load	37,531	0	0	0	0	0	0	0	0	0	0	0	0	37,531
925-E and S Loads	1,220,845	40,378	42,561	75,611	81,354	99,553	60,525	52,522	40,630	29,084	63,184	29,848	26,905	1,863,000
926-A and G Loads	642,921	13,752	14,702	24,340	27,111	33,722	20,507	18,270	14,125	10,099	21,975	10,307	9,220	861,052
928-AFUDC Debt Reg	4,109	0	0	0	0	0	0	0	0	0	0	0	0	4,109
929-AFUDC - Equity Regular	5,937	0	0	0	0	0	0	0	0	0	0	0	0	5,937
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	10,012,658	264,849	284,815	497,574	539,801	655,298	399,892	346,359	270,021	191,286	417,527	198,464	178,571	14,257,114
825-Clearings	-10,274,234	-69,902	-112,884	-189,822	-259,818	-338,914	-351,109	-350,159	-334,132	-305,563	-327,955	-302,057	-970,759	-14,187,310
Clr Sum	-10,274,234	-69,902	-112,884	-189,822	-259,818	-338,914	-351,109	-350,159	-334,132	-305,563	-327,955	-302,057	-970,759	-14,187,310
Proj Net	-261,577	194,948	171,931	307,752	279,983	316,384	48,782	-3,800	-64,110	-114,277	89,571	-103,593	-792,189	69,804

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

Cost Year 03

Project	10001707	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	415,587	8,449	5,453	8,251	14,902	19,002	14,118	3,334	2,853	2,370	4,139	4,141	5,837	508,437	
120-Overtime-General	612,287	2,839	315	54,782	25,551	14,300	5,968	0	0	0	0	0	0	716,042	
350-Material Issues-Major	820,951	1,993	28,040	18,197	36,332	16,761	17,275	9,615	17,401	2,984	15,650	13,589	11,042	1,009,830	
370-Outside Services	8,906,817	99,099	228,980	219,186	261,141	368,566	224,455	226,974	168,782	134,276	265,607	124,450	109,269	11,337,603	
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	105	0	0	0	0	0	0	0	0	0	0	0	0	105	
610-Expenses - General	56,315	3,684	1,737	14,012	10,508	10,945	5,566	0	0	0	0	0	0	102,767	
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	76,662	885	452	4,942	3,172	2,611	1,575	261	224	186	325	325	458	92,076	
914-Pension and Benefits Load	280,393	3,080	1,574	17,202	11,040	9,088	5,482	910	779	647	1,130	1,130	1,593	334,046	
915-Injuries and Damages Load	69,695	702	359	3,921	2,516	2,071	1,249	207	177	147	257	258	363	81,924	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	246,672	345	4,851	3,148	6,285	2,900	2,988	1,663	3,010	516	2,707	2,351	1,910	279,348	
922-Minor Material Load	37,531	0	0	0	0	0	0	0	0	0	0	0	0	37,531	
925-E and S Loads	1,863,000	23,180	51,247	65,375	70,111	85,122	52,932	46,330	36,521	26,997	55,125	27,627	24,684	2,428,251	
926-A and G Loads	861,052	7,799	17,776	21,130	23,415	28,867	17,968	16,123	12,703	9,383	19,179	9,554	8,477	1,053,427	
928-AFUDC Debt Reg	4,109	0	0	0	0	0	0	0	0	0	0	0	0	4,109	
929-AFUDC - Equity Regular	5,937	0	0	0	0	0	0	0	0	0	0	0	0	5,937	
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	14,257,114	152,055	340,785	430,145	464,973	560,235	349,575	305,418	242,451	177,507	364,119	183,425	163,632	17,991,434	
825-Clearings	-14,187,310	-113,619	-159,052	-213,271	-263,611	-322,936	-328,264	-323,695	-307,446	-281,458	-297,990	-275,077	-884,759	-17,958,487	
Clr Sum	-14,187,310	-113,619	-159,052	-213,271	-263,611	-322,936	-328,264	-323,695	-307,446	-281,458	-297,990	-275,077	-884,759	-17,958,487	
Proj Net	69,804	38,436	181,733	216,874	201,362	237,299	21,311	-18,277	-64,995	-103,951	66,129	-91,652	-721,126	32,947	

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***Project No: 14002014 San Antonito 12 to San Antonito 22 Feeder Tie***

Company: 001-Electric Services  
Location: 140 Distribution

Project Information

Construction Start Date 1/1/2014 Estimated Completion Date 10/31/2016

List Interim In-Service Dates

NA

Project Need Justification

The purpose of this project is to establish a new feeder tie which will enable San Antonito 22 to back up San Antonito 12. San Antonito feeder 12 customers have experienced over 65 outages over the past 5 years with an average outage duration of 268 minutes. The existing single-phase La Madera lateral on San Antonito 12 presently serves approximately 2,290 kVA of connected load. This large single-phase lateral causes a significant phase imbalance on the San Antonito 12 feeder. It also represents a large exposure to power outages for existing customers caused by single-phase line-to-ground faults. A three-phase overhead backbone through this area will allow this lateral to be split up and balanced, resulting in a better phase balance on the feeder, as well as improving the voltage profile and reducing outage exposure for a larger number of customers. Constructing this backbone develops a feeder tie between San Antonito 12 and San Antonito 22. This feeder tie will also serve as an alternate source for the Sandia Crest load in the event of an outage due to downed lines on the lower half of the San Antonito 12 feeder. This will increase the reliability of service to the sensitive Sandia Crest load.

Project Alternatives

Two alternatives were considered: (1) the proposed feeder-tie, and (2) a do-nothing alternative. The do-nothing alternative was dismissed because it could result in PNM curtailing load to maintain the American National Standards Institute (ANSI) Range-A voltage mandates. The proposed feeder-tie was selected because there are no other feeders in the surrounding area to back up San Antonito 12 and San Antonito 22 feeder loads. Therefore, the proposed feeder-tie would result in the most reliable and quickest restoration of power for our customers.

Technical Aspects

This project requires replacing approximately 20,100 feet of single-phase #4 Aluminum-Conductor Steel-Reinforced Wire (ACSR) and #2ACSR with a three-phase 397 All Aluminum Conductors (AAC) 570 Amp rated conductor design, including phase balancing starting at pole M11A007 in the La Madera area on the San Antonito 12 feeder, north to pole N09A001 at the northern tip of San Pedro Creek Estates of the single-phase underground of San Antonito 22 feeder. To complete the feeder tie, this project requires installing 4500 feet of a new three phase 397AAC 570 Amp rated overhead line and a new Gang Operated Load Break (GOLB) switch at pole N09A001 for the open point. This new overhead line will begin at Pole N09A001 and end at switch SW1499E within San Pedro Estates.

#### Project Estimate Approach

The project cost estimates are developed using PNM's Compatible Units (CUs) and in some cases historical cost information for similar type projects. The CUs provide unit costs for materials, equipment and labor. Initial estimates developed using CUs are based on best available information at the time of preliminary design and may change due to unforeseen routing or site specific conditions. For the materials and equipment cost, the items identified in the design are costed out using the corresponding CUs which represents approximately 48% of the project cost. For the labor cost, similar calculations are performed by using the identified labor hours from the design and costing them out using the CUs. The labor represents 49% of the total project cost. Other costs (which include but are not limited to include permitting, right-of-way, contractor costs, environmental screening and monitoring) are established by either using historical costs or using estimated costs determined by the governing agency and/or a bidding process. The other costs represents 3% of the total project cost.

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

Cost Year 01

Project	14002014	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General		34,136		30,000	53,000	1,950	0	0	0	119,086		
120-Overtime-General		62		0	0	0	0	0	0	62		
350-Material Issues-Major		237,250		135,000	8,000	5,000	0	0	0	385,250		
370-Outside Services		314,551		170,000	138,185	3,500	0	0	0	626,236		
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		150	150	150	0	0	0	450		
805-Land and Land Rights		4,580		0	0	0	0	0	0	4,580		
807-Non Refundable Contribution		0		0	0	0	0	0	0	0		
829-Construction Adjustment		0		0	0	0	-5,162	0	0	-5,162		
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		2,776		2,361	4,171	153	0	0	0	9,461		
914-Pension and Benefits Load		10,733		8,982	15,868	584	0	0	0	36,167		
915-Injuries and Damages Load		2,588		1,956	3,456	127	0	0	0	8,127		
918-San Juan AR-Labor		0		0	0	0	0	0	0	0		
921-Stores / Purchasing Load		30,418		15,012	890	556	0	0	0	46,876		
922-Minor Material Load		16,768		0	0	0	0	0	0	16,768		
925-E and S Loads		82,467		64,463	41,224	2,121	0	0	0	190,275		
926-A and G Loads		51,315		27,884	16,585	882	0	0	0	96,666		
928-AFUDC Debt Reg		6,456		1,274	2,111	2,455	2,478	0	0	14,775		
929-AFUDC - Equity Regular		8,562		1,380	2,287	2,659	2,684	0	0	17,571		
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		802,662		458,463	285,925	20,138	0	0	0	1,567,188		
825-Clearings		-478,425		0	0	0	-1,102,020	0	0	-1,580,445		
Clr Sum		-478,425		0	0	0	-1,102,020	0	0	-1,580,445		
Proj Net		324,236		458,463	285,925	20,138	-1,102,020	0	0	-13,257		

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

Cost Year 02

Project	14002014	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	119,086	0	0	0	0	0	0	0	0	0	0	0	0	119,086
	120-Overtime-General	62	0	0	0	0	0	0	0	0	0	0	0	0	62
	350-Material Issues-Major	385,250	0	0	0	0	0	0	0	0	0	0	0	0	385,250
	370-Outside Services	626,236	0	0	0	0	0	0	0	0	0	0	0	0	626,236
	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	450	0	0	0	0	0	0	0	0	0	0	0	0	450
	805-Land and Land Rights	4,580	0	0	0	0	0	0	0	0	0	0	0	0	4,580
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-5,162	0	0	0	0	0	0	0	0	0	0	0	0	-5,162
	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	9,461	0	0	0	0	0	0	0	0	0	0	0	0	9,461
	914-Pension and Benefits Load	36,167	0	0	0	0	0	0	0	0	0	0	0	0	36,167
	915-Injuries and Damages Load	8,127	0	0	0	0	0	0	0	0	0	0	0	0	8,127
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	46,876	0	0	0	0	0	0	0	0	0	0	0	0	46,876
	922-Minor Material Load	16,768	0	0	0	0	0	0	0	0	0	0	0	0	16,768
	925-E and S Loads	190,275	0	0	0	0	0	0	0	0	0	0	0	0	190,275
	926-A and G Loads	96,666	0	0	0	0	0	0	0	0	0	0	0	0	96,666
	928-AFUDC Debt Reg	14,775	0	0	0	0	0	0	0	0	0	0	0	0	14,775
	929-AFUDC - Equity Regular	17,571	0	0	0	0	0	0	0	0	0	0	0	0	17,571
	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	1,567,188	0	0	0	0	0	0	0	0	0	0	0	0	1,567,188
	825-Clearings	-1,580,445	0	0	0	0	0	0	0	0	0	0	0	0	-1,580,445
	Clr Sum	-1,580,445	0	0	0	0	0	0	0	0	0	0	0	0	-1,580,445
	Proj Net	-13,257	0	0	0	0	0	0	0	0	0	0	0	0	-13,257

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

Cost Year 03

Project	14002014	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	119,086	0	0	0	0	0	0	0	0	0	0	0	0	119,086
	120-Overtime-General	62	0	0	0	0	0	0	0	0	0	0	0	0	62
	350-Material Issues-Major	385,250	0	0	0	0	0	0	0	0	0	0	0	0	385,250
	370-Outside Services	626,236	0	0	0	0	0	0	0	0	0	0	0	0	626,236
	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	450	0	0	0	0	0	0	0	0	0	0	0	0	450
	805-Land and Land Rights	4,580	0	0	0	0	0	0	0	0	0	0	0	0	4,580
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-5,162	0	0	0	0	0	0	0	0	0	0	0	0	-5,162
	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	9,461	0	0	0	0	0	0	0	0	0	0	0	0	9,461
	914-Pension and Benefits Load	36,167	0	0	0	0	0	0	0	0	0	0	0	0	36,167
	915-Injuries and Damages Load	8,127	0	0	0	0	0	0	0	0	0	0	0	0	8,127
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	46,876	0	0	0	0	0	0	0	0	0	0	0	0	46,876
	922-Minor Material Load	16,768	0	0	0	0	0	0	0	0	0	0	0	0	16,768
	925-E and S Loads	190,275	0	0	0	0	0	0	0	0	0	0	0	0	190,275
	926-A and G Loads	96,666	0	0	0	0	0	0	0	0	0	0	0	0	96,666
	928-AFUDC Debt Reg	14,775	0	0	0	0	0	0	0	0	0	0	0	0	14,775
	929-AFUDC - Equity Regular	17,571	0	0	0	0	0	0	0	0	0	0	0	0	17,571
	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	1,567,188	0	0	0	0	0	0	0	0	0	0	0	0	1,567,188
	825-Clearings	-1,580,445	0	0	0	0	0	0	0	0	0	0	0	0	-1,580,445
	Clr Sum	-1,580,445	0	0	0	0	0	0	0	0	0	0	0	0	-1,580,445
	Proj Net	-13,257	0	0	0	0	0	0	0	0	0	0	0	0	-13,257

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**Project No: 15100707 ED System Improvements**

Company: 034-PNM TNMPNM Distribution  
Location: 151 Distribution

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date

List Interim In-Service Dates

Project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

This project provides for numerous small miscellaneous distribution facility improvements to improve service and operation by providing voltage support, enhancing system protection, and maintaining or improving system reliability.

Project Alternatives

This is mandatory blanket project that will complete multiple projects required for the safe and reliable operation of the distribution facilities for PNM customers. The alternatives to each project built are evaluated at work order level to determine the optimal solution.

Technical Aspects

This project is for distribution system improvements that include the design and installation of conduit systems cable, wire, poles, overhead and underground switches, transformers, voltage regulators, capacitor banks, and protection equipment. The need for the improvements are identified in several ways including during annual load analysis and system modeling of the distribution system to identify operational issues caused by normal load growth, during the design of line extensions to serve new customers, via operating problems that may arise during the year such as customer low voltage complaints, and if it is identified that equipment needs to be replaced due to its age. Installation of wildlife equipment to prevent birds and small animals from electrocution is also included in this project to help reduce outages caused by birds and other small animals.

Project Estimate Approach

Most of the system improvement projects for this blanket are not identified prior to budget. Therefore, historical spend is used as a guide to estimate future funding for the project. The initial budget for this project was developed by applying labor and non-labor cost escalation factors to the most recent 12-month actual spend (July 2015-June 2016).The typical breakdown of a cost estimate by categories is as follows: company labor (66%), outside services (1%), materials (19%), and company transportation (14%). This breakdown can fluctuate depending on the nature of the system improvement work.

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

Cost Year 01

Project	15100707	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	0		15,093	15,780	15,521	10,192	6,521	6,123	69,230		
	120-Overtime-General	0		0	328	454	6	11	69	868		
	350-Material Issues-Major	0		10,369	10,750	12,778	7,526	7,005	5,523	53,951		
	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		2,062	2,895	3,240	3,076	2,140	2,682	16,096		
	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	-1,039	-1,039	-933	-3,011		
	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		1,188	1,268	1,257	803	514	487	5,517		
	914-Pension and Benefits Load	0		4,519	4,823	4,783	3,053	1,956	1,854	20,987		
	915-Injuries and Damages Load	0		984	1,050	1,042	665	426	404	4,570		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	0		1,594	1,652	1,964	1,157	1,077	849	8,292		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	0		6,330	6,825	7,229	4,684	3,436	3,171	31,676		
	926-A and G Loads	0		2,290	2,475	2,662	1,731	1,304	1,198	11,660		
	928-AFUDC Debt Reg	0		463	487	519	499	510	444	2,922		
	929-AFUDC - Equity Regular	0		502	527	562	540	552	481	3,165		
	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		45,393	48,862	52,010	32,893	24,412	22,353	225,923		
	825-Clearings	0		-36,589	-36,143	-51,364	-23,835	-52,564	-33,394	-233,888		
	Clr Sum	0		-36,589	-36,143	-51,364	-23,835	-52,564	-33,394	-233,888		
	Proj Net	0		8,805	12,719	647	9,058	-28,152	-11,041	-7,965		

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

Cost Year 02

Project	15100707	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	69,230	12,607	12,496	10,275	6,083	4,697	6,197	6,811	6,655	6,450	13,121	10,404	11,408	176,434
120-Overtime-General	868	1,573	918	759	880	467	899	779	1,236	982	1,271	2,569	1,735	14,936
350-Material Issues-Major	53,951	4,828	6,704	6,298	4,701	2,964	3,784	4,960	4,673	4,338	6,555	6,236	6,510	116,502
370-Outside Services	0	2,375	1,032	1,162	812	431	830	1,088	2,341	1,829	2,096	2,218	2,525	18,740
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	16,096	9,604	4,172	4,699	3,283	1,742	3,357	4,400	9,466	7,396	8,475	17,053	10,209	99,953
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	-3,011	-1,196	-1,196	0	0	0	0	0	0	0	0	0	0	-5,403
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	5,517	1,112	1,052	865	546	405	556	595	619	583	1,128	1,017	1,030	15,024
914-Pension and Benefits Load	20,987	3,870	3,661	3,011	1,900	1,409	1,937	2,071	2,153	2,028	3,928	3,540	3,587	54,082
915-Injuries and Damages Load	4,570	882	834	686	433	321	441	472	491	462	895	807	817	12,113
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	8,292	835	1,160	1,090	813	513	655	858	808	750	1,134	1,079	1,126	19,114
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	31,676	7,075	5,927	5,329	3,578	2,388	3,456	4,066	5,306	4,621	7,194	8,418	7,262	96,296
926-A and G Loads	11,660	2,082	1,702	1,559	1,059	692	1,013	1,212	1,638	1,411	2,118	2,586	2,176	30,907
928-AFUDC Debt Reg	2,922	516	574	579	582	472	484	479	502	542	562	580	653	9,447
929-AFUDC - Equity Regular	3,165	677	752	759	764	619	634	628	659	711	737	761	856	11,722
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	225,923	46,841	39,787	37,071	25,435	17,119	24,243	28,419	36,547	32,104	49,214	57,269	49,896	669,868
825-Clearings	-233,888	-21,350	-36,475	-29,836	-63,745	-16,240	-28,200	-23,450	-18,886	-33,144	-46,181	-25,564	-107,744	-684,702
Clr Sum	-233,888	-21,350	-36,475	-29,836	-63,745	-16,240	-28,200	-23,450	-18,886	-33,144	-46,181	-25,564	-107,744	-684,702
Proj Net	-7,965	25,491	3,312	7,235	-38,310	879	-3,957	4,969	17,662	-1,040	3,033	31,704	-57,848	-14,834

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

Cost Year 03

Project	15100707	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	176,434	13,165	10,888	8,100	6,185	6,751	6,303	6,947	12,100	11,679	13,383	22,929	13,121	307,985
120-Overtime-General	14,936	2,625	1,140	1,284	897	476	917	1,202	2,587	2,021	2,316	4,660	2,790	37,852
350-Material Issues-Major	116,502	10,990	4,774	5,378	3,757	1,993	3,841	5,035	10,833	8,463	9,698	19,514	11,683	212,460
370-Outside Services	18,740	2,411	1,047	1,180	824	437	843	1,104	2,376	1,857	2,128	4,281	2,563	39,791
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	99,953	9,748	4,235	4,770	3,332	1,768	3,407	4,466	9,608	7,507	8,602	17,309	10,362	185,067
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	-5,403	0	0	0	0	0	0	0	0	0	0	0	0	-5,403
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	15,024	1,238	943	736	555	567	566	639	1,151	1,074	1,231	2,163	1,247	27,135
914-Pension and Benefits Load	54,082	4,309	3,282	2,561	1,933	1,972	1,970	2,224	4,008	3,739	4,284	7,529	4,342	96,237
915-Injuries and Damages Load	12,113	982	748	584	441	450	449	507	914	852	977	1,716	990	21,721
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	19,114	1,901	826	930	650	345	665	871	1,874	1,464	1,678	3,376	2,021	35,714
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	96,296	8,730	5,195	4,722	3,441	2,767	3,513	4,248	8,367	7,141	8,183	15,380	9,043	177,025
926-A and G Loads	30,907	2,617	1,484	1,392	1,008	768	1,029	1,260	2,520	2,119	2,428	4,616	2,723	54,870
928-AFUDC Debt Reg	9,447	517	584	577	575	468	483	480	531	616	653	723	854	16,505
929-AFUDC - Equity Regular	11,722	466	526	520	518	422	435	432	479	555	588	652	770	18,086
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	669,868	59,696	35,673	32,733	24,116	19,184	24,421	29,415	57,349	49,086	56,149	104,849	62,508	1,225,046
825-Clearings	-684,702	-21,925	-36,671	-29,435	-62,626	-16,157	-28,098	-23,495	-20,774	-38,489	-53,436	-33,496	-140,056	-1,189,362
Clr Sum	-684,702	-21,925	-36,671	-29,435	-62,626	-16,157	-28,098	-23,495	-20,774	-38,489	-53,436	-33,496	-140,056	-1,189,362
Proj Net	-14,834	37,771	-999	3,298	-38,510	3,026	-3,677	5,920	36,575	10,597	2,713	71,352	-77,548	35,685

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**Project No: 15200707 ED System Improvements**

Company: 034-PNM TNMPNM Distribution  
Location: 152 Distribution

Project Information

Construction Start Date                      1/1/2015                      Estimated Completion Date  
List Interim In-Service Dates

Project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

This project involves upgrading existing electric distribution facilities to increase load serving capabilities, provide voltage support, enhance system protection and maintain or improve system reliability.

Project Alternatives

This is mandatory blanket project that will include multiple projects required for the safe and reliable operation of the distribution facilities for PNM customers. The alternatives to each project built are evaluated at work order level to determine the optimal solution.

Technical Aspects

This project is for distribution system improvements that include the design and installation of conduit systems cable, wire, poles, overhead and underground switches, transformers, voltage regulators, capacitor banks, and protection equipment. The need for the improvements were identified during: -the annual load analysis and system modeling of the distribution system to identify operational issues caused by normal load growth;-during the design of line extensions to serve new customers;-operating problems that may arise during the year such as customer low voltage complaints, and;-equipment identified as needing to be replaced due to its age. Installation of wildlife equipment to prevent birds and small animals from electrocution is also included in this project to help reduce outages caused by these animals.

Project Estimate Approach

Most of the system improvement projects for this blanket are not identified prior to budget. Therefore, historical spend is used as a guide to estimate future funding for the project. The initial budget for this project was developed by applying labor and non-labor cost escalation factors to the most recent 12-month actual spend (July 2015-June 2016). The typical breakdown of a cost estimate by categories is as follows: company labor (66%), outside services (1%), materials (19%), and company transportation (14%). This breakdown can fluctuate depending on the nature of the system improvement work.

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

Cost Year 01

Project	15200707	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			12,280	13,590	14,330	13,863	10,995	8,550	73,608		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			6,415	6,555	6,190	3,850	4,974	3,915	31,899		
370-Outside Services	0			0	0	6,535	5,550	4,500	0	16,585		
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			3,339	3,427	1,947	1,260	1,583	1,519	13,075		
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	-974	-974	-934	-2,883		
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			966	1,070	1,128	1,091	865	673	5,793		
914-Pension and Benefits Load	0			3,677	4,069	4,290	4,151	3,292	2,560	22,038		
915-Injuries and Damages Load	0			801	886	934	904	717	557	4,799		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			986	1,008	951	592	765	602	4,903		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			5,083	5,475	6,541	5,674	4,981	3,288	31,043		
926-A and G Loads	0			1,833	1,961	2,413	2,040	1,835	1,163	11,246		
928-AFUDC Debt Reg	0			451	457	478	468	499	445	2,798		
929-AFUDC - Equity Regular	0			489	495	517	506	541	482	3,030		
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			36,320	38,993	46,255	38,974	34,572	22,821	217,935		
825-Clearings	0			-35,002	-33,413	-47,119	-22,745	-52,641	-33,513	-224,435		
Clr Sum	0			-35,002	-33,413	-47,119	-22,745	-52,641	-33,513	-224,435		
Proj Net	0			1,318	5,579	-865	16,229	-18,069	-10,692	-6,500		

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

Cost Year 02

Project	15200707	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	73,608	2,995	4,159	5,421	4,890	7,952	9,295	6,742	5,884	3,110	5,641	5,456	2,029	137,183
120-Overtime-General	0	309	274	620	236	455	796	970	387	205	371	392	594	5,607
350-Material Issues-Major	31,899	2,679	2,374	4,377	2,049	5,680	6,310	5,414	3,358	1,775	3,220	3,400	5,153	77,688
370-Outside Services	16,585	1,297	2,035	3,610	1,757	2,870	5,850	3,214	2,879	1,522	2,761	1,915	1,418	47,713
374-Outside Svcs Legal	0	45	40	91	35	96	293	142	57	30	54	57	87	1,027
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	13,075	2,103	1,863	4,220	1,608	4,458	13,593	6,603	2,636	1,393	2,527	2,668	4,044	60,791
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	-126	-112	-253	-96	-267	-814	-395	-158	-83	-151	-160	-242	-2,858
829-Construction Adjustment	-2,883	-1,111	-1,069	0	0	0	0	0	0	0	0	0	0	-5,062
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	5,793	259	348	474	402	659	791	605	492	260	471	458	206	11,217
914-Pension and Benefits Load	22,038	902	1,210	1,649	1,399	2,294	2,754	2,105	1,711	905	1,641	1,596	716	40,918
915-Injuries and Damages Load	4,799	205	276	376	319	523	628	480	390	206	374	364	163	9,102
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	4,903	464	411	757	354	983	1,092	937	581	307	557	588	892	12,824
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	31,043	2,073	2,415	4,001	2,437	4,797	7,739	5,045	3,416	1,806	3,276	3,131	2,767	73,945
926-A and G Loads	11,246	634	722	1,232	711	1,446	2,428	1,551	1,021	540	979	933	895	24,339
928-AFUDC Debt Reg	2,798	475	455	421	422	368	442	482	496	497	467	430	438	8,191
929-AFUDC - Equity Regular	3,030	623	597	552	554	482	580	632	650	651	613	564	574	10,104
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	217,935	13,826	15,996	27,547	17,077	32,795	51,778	34,525	23,800	13,123	22,802	21,793	19,733	512,728
825-Clearings	-224,435	-22,772	-34,769	-21,746	-46,057	-13,478	-27,909	-23,959	-18,092	-29,154	-36,679	-17,895	-69,532	-586,478
Clr Sum	-224,435	-22,772	-34,769	-21,746	-46,057	-13,478	-27,909	-23,959	-18,092	-29,154	-36,679	-17,895	-69,532	-586,478
Proj Net	-6,500	-8,947	-18,773	5,800	-28,981	19,318	23,869	10,566	5,708	-16,031	-13,877	3,898	-49,799	-73,749

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

Cost Year 03

Project	15200707	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	137,183	8,410	8,242	11,609	11,662	12,151	32,958	17,036	8,195	8,133	7,454	8,076	10,110	281,219
120-Overtime-General	5,607	315	279	632	241	668	2,036	989	395	209	378	400	606	12,754
350-Material Issues-Major	77,688	6,720	6,403	9,457	6,080	9,765	18,580	12,540	7,509	5,802	7,268	7,451	8,230	183,493
370-Outside Services	47,713	2,332	2,066	4,679	1,783	4,943	15,073	7,322	2,922	1,545	2,802	2,958	4,485	100,622
374-Outside Svcs Legal	1,027	46	41	92	35	97	297	144	58	30	55	58	88	2,069
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	60,791	2,134	1,891	4,283	1,632	4,525	13,797	6,702	2,675	1,414	2,565	2,708	4,105	109,223
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-2,858	-128	-113	-257	-98	-271	-826	-401	-160	-85	-154	-162	-246	-5,758
829-Construction Adjustment	-5,062	0	0	0	0	0	0	0	0	0	0	0	0	-5,062
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	11,217	684	668	960	933	1,005	2,744	1,413	673	654	614	664	840	23,070
914-Pension and Benefits Load	40,918	2,381	2,325	3,341	3,248	3,498	9,550	4,919	2,344	2,276	2,137	2,313	2,924	82,176
915-Injuries and Damages Load	9,102	543	530	761	740	797	2,177	1,121	534	519	487	527	667	18,506
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	12,824	1,163	1,108	1,636	1,052	1,689	3,214	2,169	1,299	1,004	1,257	1,289	1,424	31,129
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	73,945	4,524	4,309	6,876	5,060	7,190	18,665	10,020	4,859	3,952	4,562	4,830	6,154	154,947
926-A and G Loads	24,339	1,341	1,272	2,067	1,440	2,160	5,560	3,006	1,462	1,151	1,379	1,455	1,856	48,489
928-AFUDC Debt Reg	8,191	324	368	406	454	429	614	755	789	796	752	686	711	15,274
929-AFUDC - Equity Regular	10,104	292	332	366	410	387	553	681	711	717	678	618	641	16,489
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	512,728	31,080	29,720	46,909	34,674	49,034	124,991	68,416	34,265	28,118	32,236	33,872	42,596	1,068,637
825-Clearings	-586,478	-13,426	-23,667	-22,184	-51,629	-16,156	-42,409	-38,292	-28,578	-47,142	-58,420	-28,417	-114,809	-1,071,607
Clr Sum	-586,478	-13,426	-23,667	-22,184	-51,629	-16,156	-42,409	-38,292	-28,578	-47,142	-58,420	-28,417	-114,809	-1,071,607
Proj Net	-73,749	17,654	6,053	24,724	-16,956	32,878	82,582	30,124	5,687	-19,024	-26,185	5,455	-72,213	-2,969

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**Project No: 15500607 ED Remove & Replace \$1,329,720 (\$22,793) \$1,329,720**

Company: 034-PNM TNMPNM Distribution  
Location: 155 Distribution

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date

List Interim In-Service Dates

Project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

The project is for the replacement of electrical distribution line facilities that have been damaged by storms/fire or that have deteriorated through normal aging. The project also covers the required relocation of distribution facilities on government road right-of-way to accommodate construction projects such as road re-alignments and road widening. The project is generally for the replacement of like to like equipment that makes up the existing electrical distribution line facilities for both overhead and underground systems. The project drivers are the need to replace failed distribution line equipment and governmental roadway improvement projects.

Project Alternatives

These projects are a result of government requirements or to restore lost service and, therefore, limits project alternatives available. In most cases, work will involve the replacement of like for like equipment. Other configurations evaluated on a case-by-case basis taking into account the best options available.

Technical Aspects

The project involves the removal and replacement of existing electrical distribution line facilities for both overhead and underground systems. The project includes design, installation and removal of wire, poles, pole hardware including insulators, cross arms, cut outs, anchor assemblies, switches, protective equipment, underground cable and conduits, and other equipment.

Project Estimate Approach

Because a significant portion of the activities for this project include replacement of storm damaged facilities, the work required is largely unknown at the time of forecast. Historical spend in this funding project is analyzed to develop this project’s estimated spend. The initial budget for this project was developed by applying escalation factors to the most recent 12-month actual spend (July 2015-June 2016) by the second quarter reforecast (Q2RF) expected customer growth provided by PNM Strategic Marketing & Product Management expressed as the percentage change in number of new customers year-over-year. Additionally, labor and non-labor cost components are escalated using annual expected cost increase percentages as supplied by PNM budget. The typical breakdown of total cost by high level cost categories is as follows: PNM labor 53%, material 33%, PNM transportation & equipment 12%, and contract labor 2%. This breakdown can fluctuate depending on the nature of the removals and replacement facilities including whether they are overhead construction or underground facilities.

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

Cost Year 01

Project	15500607	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			5,500	5,599	6,963	4,708	4,708	3,511	30,989		
120-Overtime-General	0			1,250	2,017	2,201	1,500	1,261	0	8,229		
350-Material Issues-Major	0			3,541	5,904	5,040	3,280	3,700	10,480	31,945		
370-Outside Services	0			1,100	0	0	72,115	72,725	78,324	224,263		
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			6,318	5,294	5,004	9,629	6,390	5,297	37,932		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			-647	-24	-634	-2,619	-2,732	801	-5,855		
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			531	599	721	489	470	276	3,086		
914-Pension and Benefits Load	0			2,021	2,280	2,744	1,859	1,787	1,051	11,742		
915-Injuries and Damages Load	0			440	497	597	405	389	229	2,557		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			544	908	775	504	569	1,611	4,910		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			3,830	4,105	4,305	17,387	16,915	18,346	64,887		
926-A and G Loads	0			1,473	1,565	1,598	7,590	7,387	8,121	27,735		
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			25,902	28,744	29,312	116,847	113,568	128,047	442,420		
825-Clearings	0			-19,113	-28,781	-34,396	-28,604	-48,800	-146,013	-305,706		
Clr Sum	0			-19,113	-28,781	-34,396	-28,604	-48,800	-146,013	-305,706		
Proj Net	0			6,789	-36	-5,083	88,242	64,768	-17,966	136,714		

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

Cost Year 02

Project	15500607	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	30,989	8,675	10,824	11,248	8,899	4,516	10,675	11,474	10,673	8,206	9,575	8,278	10,663	144,695
120-Overtime-General	8,229	1,424	2,269	1,847	1,461	676	2,245	1,883	2,409	1,347	1,572	1,359	1,750	28,471
350-Material Issues-Major	31,945	5,054	8,054	6,554	5,185	2,398	7,967	6,685	8,549	4,781	5,579	4,823	6,212	103,786
370-Outside Services	224,263	1,701	2,711	2,206	1,745	886	2,682	2,250	2,878	1,609	1,878	1,624	2,091	248,524
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	37,932	6,674	10,635	8,654	6,847	3,167	10,521	8,827	11,288	6,313	7,367	6,368	8,203	132,796
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-5,855	-1,262	-2,011	-1,636	-1,294	-599	-1,989	-1,669	-2,134	-1,193	-1,393	-1,204	-1,551	-23,790
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	3,086	792	1,026	1,027	812	407	1,013	1,047	1,026	749	874	756	973	13,588
914-Pension and Benefits Load	11,742	2,756	3,573	3,574	2,827	1,417	3,526	3,645	3,570	2,607	3,042	2,630	3,388	48,296
915-Injuries and Damages Load	2,557	628	814	815	644	323	804	831	814	594	693	599	772	10,889
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	4,910	874	1,393	1,134	897	415	1,378	1,157	1,479	827	965	834	1,075	17,338
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	64,887	5,319	7,662	6,897	5,457	2,648	7,571	7,035	7,912	5,032	5,871	5,076	6,538	137,905
926-A and G Loads	27,735	1,581	2,318	2,050	1,622	782	2,291	2,091	2,406	1,496	1,745	1,509	1,943	49,570
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	442,420	34,217	49,269	44,369	35,103	17,036	48,684	45,256	50,869	32,367	37,769	32,652	42,057	912,067
825-Clearings	-305,706	-73,561	-37,223	-54,047	-20,019	-26,838	-42,953	-22,533	-27,385	-95,483	-46,952	-31,183	-90,112	-873,996
Clr Sum	-305,706	-73,561	-37,223	-54,047	-20,019	-26,838	-42,953	-22,533	-27,385	-95,483	-46,952	-31,183	-90,112	-873,996
Proj Net	136,714	-39,345	12,046	-9,678	15,083	-9,802	5,730	22,723	23,483	-63,115	-9,183	1,469	-48,055	38,071

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

Cost Year 03

Project	15500607	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	144,695	7,962	12,688	10,324	8,168	3,778	12,552	10,531	13,468	7,532	8,789	7,598	9,787	257,872
120-Overtime-General	28,471	1,307	2,083	1,695	1,341	620	2,060	1,729	2,211	1,236	1,443	1,247	1,607	47,050
350-Material Issues-Major	103,786	4,616	7,356	5,986	4,736	2,190	7,277	6,106	7,808	4,367	5,096	4,405	5,674	169,403
370-Outside Services	248,524	1,554	2,476	2,015	1,594	737	2,450	2,055	2,629	1,470	1,715	1,483	1,910	270,612
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	132,796	6,096	9,714	7,904	6,253	2,892	9,609	8,062	10,310	5,766	6,728	5,817	7,493	219,440
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-23,790	-1,498	-2,387	-1,943	-1,537	-711	-2,362	-1,981	-2,534	-1,417	-1,654	-1,430	-1,841	-45,085
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	13,588	727	1,158	942	746	345	1,146	961	1,229	687	802	693	893	23,918
914-Pension and Benefits Load	48,296	2,530	4,031	3,280	2,595	1,200	3,988	3,346	4,279	2,393	2,792	2,414	3,109	84,252
915-Injuries and Damages Load	10,889	577	919	748	591	274	909	763	975	545	636	550	709	19,084
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	17,338	799	1,273	1,036	819	379	1,259	1,056	1,351	755	882	762	982	28,690
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	137,905	4,871	7,762	6,316	4,997	2,311	7,678	6,442	8,239	4,607	5,376	4,648	5,987	207,138
926-A and G Loads	49,570	1,447	2,306	1,876	1,485	687	2,281	1,914	2,448	1,369	1,597	1,381	1,779	70,140
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	912,067	30,986	49,378	40,179	31,787	14,701	48,846	40,984	52,412	29,311	34,203	29,568	38,089	1,352,513
825-Clearings	-873,996	-27,906	-37,718	-41,177	-15,679	-21,176	-35,648	-19,000	-24,003	-84,001	-41,502	-27,664	-80,249	-1,329,720
Clr Sum	-873,996	-27,906	-37,718	-41,177	-15,679	-21,176	-35,648	-19,000	-24,003	-84,001	-41,502	-27,664	-80,249	-1,329,720
Proj Net	38,071	3,080	11,660	-999	16,108	-6,475	13,199	21,984	28,409	-54,689	-7,299	1,904	-42,160	22,793

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**Project No: 15500707 ED System Improvements**

Company: 034-PNM TNMPNM Distribution  
Location: 155 Distribution

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date

List Interim In-Service Dates

Project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

Annual load analyses and modeling of the distribution system has identified operational issues caused by normal load growth requiring system improvements to maintain voltage requirements and/or reliability. Additionally a need for system improvements were identified while designing other projects, through line patrols, or from outage investigations. These improvements are necessary to meet the standards for service as required of New Mexico Administrative Code (NMAC) Rule 17.9.560.15.

Project Alternatives

This is mandatory blanket project that will have multiple projects built required for increased distribution system reliability and operation. The alternatives to each project built are evaluated at work order level to determine the optimal cost effective solution.

Technical Aspects

Distribution system improvements include the design and installation of conduit systems cable, wire, poles, overhead and underground switches, transformers, voltage regulators, capacitor banks, and protection equipment. The improvements are identified in several ways including: 1) annual load analysis and system modeling of the distribution system to identify operational issues caused by normal load growth, 2) during design of line extensions to serve new customers, 3) operating problems that may arise during the year such as customer low voltage complaints, and 4) replacement of obsolete equipment. This project will also include installing equipment to prevent birds and small animals from electrocution is also included in this project to help reduce outages caused by birds and other small animals.

Project Estimate Approach

Most of the system improvement projects for this blanket are not identified prior to budget. Therefore, historical spend is used as a guide to estimate future funding for the project. The initial budget for this project was developed by applying labor and non-labor cost escalation factors to the most recent 12-month actual spend (July 2015-June 2016).The typical breakdown of a cost estimate by categories is as follows: company labor (66%), outside services (1%), materials (19%), and company transportation (14%). This breakdown can fluctuate depending on the nature of the system improvement work.

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

Cost Year 01

Project	15500707	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			16,501	15,510	14,300	10,530	9,500	3,157	69,498		
120-Overtime-General	0			36	0	9	521	0	0	565		
350-Material Issues-Major	0			13,100	8,500	3,258	9,500	3,500	2,450	40,308		
370-Outside Services	0			0	675	1,500	1,500	10	0	3,685		
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			4,604	2,830	2,590	2,751	1,569	670	15,014		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	0			0	0	-1,501	0	-3,273	0	-4,775		
829-Construction Adjustment	0			0	0	0	-2,037	-1,972	-1,606	-5,615		
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			1,301	1,221	1,126	870	748	248	5,514		
914-Pension and Benefits Load	0			4,951	4,644	4,284	3,309	2,844	945	20,977		
915-Injuries and Damages Load	0			1,078	1,011	933	720	619	206	4,568		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			2,013	1,306	501	1,460	538	377	6,195		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			7,691	6,362	5,180	5,494	3,476	1,420	29,624		
926-A and G Loads	0			2,849	2,289	1,802	2,063	1,213	522	10,739		
928-AFUDC Debt Reg	0			1,332	1,225	1,127	978	942	765	6,368		
929-AFUDC - Equity Regular	0			1,442	1,327	1,220	1,059	1,021	828	6,897		
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			56,898	46,900	36,329	38,718	20,736	9,981	209,562		
825-Clearings	0			-99,296	-85,231	-103,861	-45,416	-94,486	-55,196	-483,486		
Clr Sum	0			-99,296	-85,231	-103,861	-45,416	-94,486	-55,196	-483,486		
Proj Net	0			-42,398	-38,331	-67,532	-6,698	-73,750	-45,215	-273,924		

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

Cost Year 02

Project	15500707	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	69,498	8,573	18,111	40,575	13,346	18,399	12,815	18,769	22,717	31,476	21,412	18,041	9,576	303,308
120-Overtime-General	565	78	164	368	121	167	616	265	206	286	594	164	87	3,681
350-Material Issues-Major	40,308	3,235	6,833	13,308	5,035	6,942	4,835	7,836	8,571	11,875	8,078	6,807	3,613	127,276
370-Outside Services	3,685	1,129	2,385	5,343	1,758	2,423	1,688	2,735	2,992	4,145	2,820	2,376	1,261	34,740
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	15,014	5,443	11,499	25,763	8,474	11,682	8,137	13,187	14,424	19,985	13,595	11,455	6,080	164,738
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-4,775	-44	-93	-208	-68	-94	-66	-106	-116	-161	-110	-92	-49	-5,982
829-Construction Adjustment	-5,615	-1,849	-1,849	0	0	0	0	0	0	0	0	0	0	-9,313
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	5,514	678	1,433	3,210	1,056	1,456	1,053	1,492	1,797	2,490	1,725	1,427	758	24,089
914-Pension and Benefits Load	20,977	2,361	4,987	11,173	3,675	5,067	3,665	5,194	6,256	8,668	6,005	4,968	2,637	85,634
915-Injuries and Damages Load	4,568	538	1,137	2,547	838	1,155	835	1,184	1,426	1,976	1,369	1,132	601	19,305
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	6,195	560	1,182	2,302	871	1,201	836	1,356	1,483	2,054	1,397	1,178	625	21,241
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	29,624	4,231	8,937	19,639	6,586	9,080	6,460	9,727	11,211	15,533	10,675	8,903	4,726	145,331
926-A and G Loads	10,739	1,240	2,620	5,736	1,931	2,662	1,888	2,876	3,287	4,554	3,125	2,610	1,385	44,653
928-AFUDC Debt Reg	6,368	789	804	885	985	844	904	912	980	1,120	1,167	1,100	1,104	17,962
929-AFUDC - Equity Regular	6,897	1,036	1,054	1,160	1,292	1,107	1,186	1,196	1,285	1,469	1,531	1,443	1,448	22,104
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	209,562	27,998	59,204	131,801	45,899	62,090	44,852	66,623	76,518	105,470	73,383	61,513	33,853	998,767
825-Clearings	-483,486	-38,133	-64,381	-50,255	-108,195	-30,386	-52,690	-45,413	-37,087	-71,345	-93,164	-46,089	-172,364	-1,292,990
Clr Sum	-483,486	-38,133	-64,381	-50,255	-108,195	-30,386	-52,690	-45,413	-37,087	-71,345	-93,164	-46,089	-172,364	-1,292,990
Proj Net	-273,924	-10,135	-5,177	81,546	-62,296	31,704	-7,838	21,210	39,431	34,125	-19,780	15,424	-138,511	-294,223

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

Cost Year 03

Project	15500707	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	303,308	10,931	23,091	51,734	17,016	23,459	16,340	26,480	28,964	40,132	27,300	23,002	12,209	603,966
120-Overtime-General	3,681	99	210	470	155	213	148	240	263	364	248	209	111	6,411
350-Material Issues-Major	127,276	4,104	8,669	19,422	6,388	8,807	6,134	9,941	10,874	15,067	10,249	8,636	4,584	240,151
370-Outside Services	34,740	1,432	3,026	6,779	2,230	3,074	2,141	3,470	3,796	5,259	3,578	3,014	1,600	74,139
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	164,738	7,367	15,562	34,865	11,468	15,810	11,012	17,846	19,520	27,047	18,399	15,502	8,228	367,364
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-5,982	-45	-94	-211	-69	-96	-67	-108	-118	-164	-111	-94	-50	-7,209
829-Construction Adjustment	-9,313	0	0	0	0	0	0	0	0	0	0	0	0	-9,313
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	24,089	865	1,827	4,093	1,346	1,856	1,293	2,095	2,291	3,175	2,160	1,820	966	47,875
914-Pension and Benefits Load	85,634	3,010	6,359	14,246	4,686	6,460	4,500	7,292	7,976	11,051	7,518	6,334	3,362	168,429
915-Injuries and Damages Load	19,305	686	1,449	3,247	1,068	1,472	1,026	1,662	1,818	2,519	1,713	1,444	766	38,176
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	21,241	710	1,500	3,360	1,105	1,524	1,061	1,720	1,881	2,607	1,773	1,494	793	40,768
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	145,331	5,471	11,557	25,892	8,517	11,741	8,178	13,253	14,496	20,086	13,664	11,512	6,111	295,809
926-A and G Loads	44,653	1,608	3,397	7,612	2,504	3,452	2,404	3,896	4,262	5,905	4,017	3,384	1,796	88,890
928-AFUDC Debt Reg	17,962	751	825	1,012	1,161	1,008	1,090	1,115	1,215	1,400	1,465	1,385	1,393	31,783
929-AFUDC - Equity Regular	22,104	677	744	912	1,047	909	983	1,005	1,095	1,262	1,321	1,249	1,256	34,563
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	998,767	37,666	78,122	173,434	58,622	79,689	56,242	89,907	98,333	135,709	93,294	78,892	43,125	2,021,801
825-Clearings	-1,292,990	-29,517	-53,932	-58,789	-127,894	-36,456	-63,561	-55,910	-46,029	-89,255	-116,836	-57,978	-217,036	-2,246,182
Clr Sum	-1,292,990	-29,517	-53,932	-58,789	-127,894	-36,456	-63,561	-55,910	-46,029	-89,255	-116,836	-57,978	-217,036	-2,246,182
Proj Net	-294,223	8,149	24,190	114,645	-69,272	43,233	-7,319	33,996	52,305	46,454	-23,542	20,914	-173,910	-224,381

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*Project No: 15500807 Services*

Company: 034-PNM TNMPNM Distribution  
Location: 155 Distribution

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date

List Interim In-Service Dates

Interim service dates are as follows: 04-2017, 07-2017, 10-2017, 12-2017. Quarterly clearings occur every year thereafter. Quarterly clearings occur every year thereafter.

Project Need Justification

This project provides for the connection of residential and non-residential customers’ electrical facilities to PNM’s distribution system in the Silver City Service Territory. The project includes the cost of PNM labor, PNM transportation and materials. Project also includes replacement costs of customer service conductors due to service upgrade or deteriorated service conductors. PNM is obligated to serve customers within its service territory. PNM and the customer’s service requirements are defined within PNM’s Rules and Regulations, specifically Rules 15, 16, & 18 filed with the New Mexico Public Regulatory Commission (NMPRC) pursuant to NMPRC Rule 210.

Project Alternatives

PNM is required to offer these services, therefore there are no potential alternatives. However, each customer request for overhead service is evaluated based on service location, service wire length, and route and potential solutions that maintain service voltage within regulatory requirements are evaluated. Non-residential customers located in underground electric distribution areas, or residential/non-residential customers located in an overhead electric distribution areas but requesting underground service, are required to provide the service wires per PNM rules. In these instances, PNM determines the optimal solution to meet the customer request while maintaining system reliability and compliance with regulatory standards.

Technical Aspects

This project includes the installation and, in the case of service retirement, removal costs of overhead and underground conductors leading from the point where PNM wires leave the last pole or distribution box to the point of connection with the residential or non-residential customer. Materials include overhead and underground, three or four, bundled wire service conductor and associated connecting or terminating parts.

#### Project Estimate Approach

Since the number, length, and types of services to be installed in a given year is unknown at the time of budget preparation, the budget for this blanket is estimated by applying escalation factors to historical spend. The initial budget for this project was developed by applying customer growth and cost escalation factors to the most recent 12-month actual spend (July 2015-June 2016). The customer growth escalation factor is derived from the second quarter reforecast (Q2RF) expected customer growth provided by PNM Strategic Marketing & Product Mgmt. expressed as the percentage change in number of new customers year-over-year. Additionally, labor and non-labor cost components are escalated using annual expected cost increase percentages as supplied by PNM Budget. The typical breakdown of cost by categories is as follows: company labor (61%), materials (7%), and company transportation (32%). This breakdown can vary over time depending on the number and type of service.

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

Cost Year 01

Project	15500807	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	0		7,541	8,140	8,363	7,722	8,217	6,529	46,512		
	120-Overtime-General	0		90	382	207	327	0	202	1,207		
	350-Material Issues-Major	0		747	2,879	4,664	2,603	4,500	3,835	19,228		
	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		4,315	4,513	4,419	6,129	4,058	4,500	27,934		
	805-Land and Land Rights	0		0	0	0	0	0	0	0		
	807-Non Refundable Contribution	0		0	0	-381	-322	-133	-627	-1,463		
	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		601	671	674	633	647	530	3,756		
	914-Pension and Benefits Load	0		2,285	2,551	2,566	2,410	2,460	2,015	14,287		
	915-Injuries and Damages Load	0		498	556	559	525	536	439	3,111		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	0		115	442	717	400	692	590	2,955		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	0		2,974	3,643	3,969	3,765	3,777	3,339	21,467		
	926-A and G Loads	0		1,056	1,324	1,469	1,396	1,396	1,253	7,894		
	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		20,221	25,101	27,225	25,588	26,149	22,605	146,889		
	825-Clearings	0		-150,098	0	0	-92,351	0	-71,841	-314,290		
	Clr Sum	0		-150,098	0	0	-92,351	0	-71,841	-314,290		
	Proj Net	0		-129,877	25,101	27,225	-66,763	26,149	-49,237	-167,401		

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

Cost Year 02

Project	15500807	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	46,512	8,725	9,867	8,485	8,137	7,528	6,264	9,075	9,058	7,116	9,168	8,669	7,430	146,034
120-Overtime-General	1,207	160	181	156	149	138	115	166	166	130	168	159	136	3,031
350-Material Issues-Major	19,228	1,462	1,654	1,422	1,364	1,262	1,050	1,521	1,518	1,193	1,537	1,453	1,245	35,909
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	27,934	7,201	8,144	7,003	6,716	6,214	5,170	7,490	7,477	5,874	7,567	7,155	6,133	110,078
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-1,463	-38	-43	-37	-36	-33	-27	-40	-40	-31	-40	-38	-33	-1,899
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	3,756	697	788	677	650	601	500	724	723	568	732	692	593	11,701
914-Pension and Benefits Load	14,287	2,425	2,742	2,358	2,261	2,092	1,741	2,522	2,517	1,977	2,548	2,409	2,065	41,945
915-Injuries and Damages Load	3,111	553	625	537	515	477	397	575	574	451	581	549	471	9,415
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	2,955	253	286	246	236	218	182	263	263	206	266	251	215	5,841
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	21,467	4,075	4,608	3,963	3,800	3,516	2,925	4,238	4,230	3,323	4,282	4,049	3,470	67,946
926-A and G Loads	7,894	1,179	1,334	1,147	1,100	1,018	847	1,227	1,224	962	1,239	1,172	1,004	21,346
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	146,889	26,691	30,186	25,958	24,892	23,031	19,163	27,761	27,710	21,770	28,047	26,520	22,729	451,346
825-Clearings	-314,290	0	0	-12,491	-45,532	-15,296	-17,978	-21,147	-9	-4,038	-85,408	-5,245	-68,538	-589,972
Clr Sum	-314,290	0	0	-12,491	-45,532	-15,296	-17,978	-21,147	-9	-4,038	-85,408	-5,245	-68,538	-589,972
Proj Net	-167,401	26,691	30,186	13,466	-20,640	7,735	1,185	6,614	27,701	17,732	-57,361	21,275	-45,809	-138,626

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

Cost Year 03

Project	15500807	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	146,034	10,411	11,773	10,125	9,709	8,983	7,474	10,828	10,809	8,491	10,939	10,344	8,866	264,786
120-Overtime-General	3,031	191	216	186	178	165	137	198	198	156	201	190	162	5,209
350-Material Issues-Major	35,909	1,736	1,964	1,689	1,619	1,498	1,247	1,806	1,803	1,416	1,824	1,725	1,479	55,715
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	110,078	8,550	9,670	8,316	7,974	7,378	6,139	8,893	8,878	6,974	8,985	8,496	7,282	207,613
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-1,899	-45	-51	-44	-42	-39	-33	-47	-47	-37	-48	-45	-39	-2,416
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	11,701	831	940	808	775	717	597	864	863	678	873	826	708	21,182
914-Pension and Benefits Load	41,945	2,893	3,272	2,814	2,698	2,496	2,077	3,009	3,004	2,360	3,040	2,875	2,464	74,946
915-Injuries and Damages Load	9,415	659	746	641	615	569	473	686	685	538	693	655	562	16,937
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	5,841	300	340	292	280	259	216	312	312	245	316	298	256	9,268
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	67,946	4,852	5,487	4,719	4,525	4,187	3,484	5,047	5,038	3,958	5,099	4,821	4,132	123,294
926-A and G Loads	21,346	1,404	1,587	1,365	1,309	1,211	1,008	1,460	1,457	1,145	1,475	1,395	1,195	37,357
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	451,346	31,783	35,944	30,912	29,641	27,425	22,818	33,056	33,000	25,923	33,397	31,580	27,067	813,892
825-Clearings	-589,972	-11,827	-8,603	-16,133	-57,607	-18,992	-22,094	-25,728	-11	-4,868	-102,705	-6,287	-82,027	-946,855
Clr Sum	-589,972	-11,827	-8,603	-16,133	-57,607	-18,992	-22,094	-25,728	-11	-4,868	-102,705	-6,287	-82,027	-946,855
Proj Net	-138,626	19,956	27,341	14,779	-27,967	8,433	725	7,328	32,988	21,055	-69,309	25,294	-54,960	-132,963

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**Project No: 20000607 Distr. Remove & Replace**

Company: 001-Electric Services  
Location: 200 Distribution

Project Information

Construction Start Date                      1/1/2015                      Estimated Completion Date

List Interim In-Service Dates

Project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

This project is driven by the need to replace failed equipment within the service area and other requirements in relation to various government-led roadway improvement projects. The work is required under franchise agreements or as necessary for maintaining system integrity, restoring power after storms, and for the safe and reliable operation of the distribution facilities.

Project Alternatives

These projects are a result of government requirements or to restore lost service and, therefore, limits project alternatives available. In most cases, work will involve the replacement of like for like equipment. Other configurations evaluated on a case-by-case basis taking into account the best options available.

Technical Aspects

This project includes relocations of electric distribution facilities in road rights-of-way and also the removal and replacement of existing electric distribution facilities that have been damaged during storms or deteriorated through normal aging. Work will include the design, installation, and removal of wire, poles, pole hardware (including insulators, cross arms, cut outs, anchor assemblies, overhead and underground switches, protection equipment, underground cable and conduits) and other equipment.

Project Estimate Approach

Because a significant portion of the activities for this project include replacement of storm damaged facilities, the work required is largely unknown at the time of forecast. Historical spend in this funding project is analyzed to develop this project’s estimated spend. The initial budget for this project was developed by applying escalation factors to the most recent 12-month actual spend (July 2015-June 2016) by the second quarter reforecast (Q2RF) expected customer growth provided by PNM Strategic Marketing & Product Management expressed as the percentage change in number of new customers year-over-year. Additionally, labor and non-labor cost components are escalated using annual expected cost increase percentages as supplied by PNM budget. The typical breakdown of cost by categories is as follows: company labor (51%), outside services (24%), materials (20%), and company transportation (5%). This breakdown can fluctuate depending on the nature of the removals and replacement facilities including whether they are overhead construction or underground facilities.

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

Cost Year 01

Project	20000607	Year	2016								
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	336,884			5,500	14,412	6,154	6,856	5,000	2,500	377,306	
120-Overtime-General	117,293			1,500	210	600	585	1,114	25	121,327	
350-Material Issues-Major	913,532			12,000	15,000	15,000	8,000	2,684	1,546	967,761	
370-Outside Services	1,038,895			25,000	35,000	35,000	42,724	65,000	68,000	1,309,619	
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	10,864			0	0	0	0	0	0	10,864	
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	
530-Employee Expense	2,384			0	0	0	0	0	0	2,384	
610-Expenses - General	0			9,974	4,730	5,757	5,538	5,425	4,210	35,633	
805-Land and Land Rights	0			0	0	0	0	0	0	0	
807-Non Refundable Contribution	-5,563			-20,378	0	0	-1,753	-1,742	0	-29,437	
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	36,047			551	1,151	532	586	481	199	39,546	
914-Pension and Benefits Load	134,172			2,096	4,378	2,022	2,228	1,831	756	147,483	
915-Injuries and Damages Load	36,329			456	953	440	485	399	165	39,227	
918-San Juan AR-Labor	0			0	0	0	0	0	0	0	
921-Stores / Purchasing Load	87,235			1,334	1,668	1,668	890	298	172	93,265	
922-Minor Material Load	61,072			0	0	0	0	0	0	61,072	
925-E and S Loads	411,972			10,559	14,029	12,118	12,395	15,158	14,319	490,551	
926-A and G Loads	200,820			4,491	5,770	5,201	5,300	6,591	6,347	234,519	
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	3,381,935			53,083	97,301	84,492	83,834	102,238	98,238	3,901,122	
825-Clearings	-3,700,530			-14,112	-37,226	-56,134	-32,791	-51,469	-140,012	-4,032,274	
Clr Sum	-3,700,530			-14,112	-37,226	-56,134	-32,791	-51,469	-140,012	-4,032,274	
Proj Net	-318,595			38,971	60,075	28,359	51,043	50,769	-41,773	-131,151	

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

Cost Year 02

Project	20000607	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	377,306	5,353	5,100	6,117	5,118	3,169	3,158	7,626	4,869	5,093	6,763	7,522	8,766	445,960
120-Overtime-General	121,327	2,725	2,596	3,114	2,605	1,613	1,608	3,882	2,478	2,592	3,442	3,829	4,462	156,273
350-Material Issues-Major	967,761	7,714	7,349	8,815	7,375	4,567	4,551	10,989	7,017	7,339	9,746	10,840	12,632	1,066,695
370-Outside Services	1,309,619	0	0	0	1,000	0	2,000	0	2,000	0	814	0	0	1,315,433
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	10,864	0	0	0	0	0	0	0	0	0	0	0	0	10,864
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	2,384	0	0	0	0	0	0	0	0	0	0	0	0	2,384
610-Expenses - General	35,633	2,139	2,038	2,444	2,045	1,266	1,262	3,047	1,946	2,035	2,703	3,006	3,503	63,067
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-29,437	-201	-191	-229	-192	-119	-118	-286	-183	-191	-254	-282	-329	-32,012
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	39,546	633	603	724	605	375	374	902	576	603	800	890	1,037	47,668
914-Pension and Benefits Load	147,483	2,204	2,100	2,519	2,108	1,305	1,301	3,141	2,005	2,097	2,785	3,098	3,610	175,755
915-Injuries and Damages Load	39,227	502	479	574	480	297	296	716	457	478	635	706	823	45,671
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	93,265	1,335	1,271	1,525	1,276	790	787	1,901	1,214	1,270	1,686	1,875	2,185	110,381
922-Minor Material Load	61,072	0	0	0	0	0	0	0	0	0	0	0	0	61,072
925-E and S Loads	490,551	4,084	3,891	4,667	4,097	2,418	2,794	5,818	4,099	3,885	5,316	5,739	6,688	544,046
926-A and G Loads	234,519	1,205	1,148	1,377	1,219	713	845	1,717	1,230	1,146	1,577	1,693	1,973	250,364
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	3,901,122	27,694	26,385	31,647	27,736	16,395	18,858	39,452	27,708	26,347	36,013	38,916	45,350	4,263,623
825-Clearings	-4,032,274	-69,156	-32,004	-45,093	-16,571	-22,479	-32,288	-17,414	-20,052	-70,783	-36,420	-26,125	-79,463	-4,500,121
Clr Sum	-4,032,274	-69,156	-32,004	-45,093	-16,571	-22,479	-32,288	-17,414	-20,052	-70,783	-36,420	-26,125	-79,463	-4,500,121
Proj Net	-131,151	-41,462	-5,620	-13,446	11,165	-6,085	-13,430	22,039	7,656	-44,435	-407	12,792	-34,112	-236,498

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

Cost Year 03

Project	20000607	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	445,960	6,387	6,085	7,299	6,107	3,781	3,768	9,100	5,810	6,077	8,070	8,976	10,459	527,879
120-Overtime-General	156,273	3,251	3,097	3,715	3,108	1,925	1,918	4,632	2,957	3,093	4,108	4,569	5,324	197,970
350-Material Issues-Major	1,066,695	9,160	8,726	10,467	8,757	5,423	5,404	13,049	8,332	8,714	11,572	12,871	14,999	1,184,169
370-Outside Services	1,315,433	0	0	0	1,000	0	2,000	0	2,000	0	814	0	0	1,321,247
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	10,864	0	0	0	0	0	0	0	0	0	0	0	0	10,864
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	2,384	0	0	0	0	0	0	0	0	0	0	0	0	2,384
610-Expenses - General	63,067	2,540	2,420	2,903	2,428	1,504	1,498	3,618	2,310	2,416	3,209	3,569	4,159	95,641
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-32,012	-238	-227	-272	-228	-141	-141	-339	-217	-227	-301	-335	-390	-35,068
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	47,668	756	720	863	722	447	446	1,077	687	719	955	1,062	1,237	57,360
914-Pension and Benefits Load	175,755	2,630	2,506	3,006	2,515	1,557	1,552	3,747	2,393	2,502	3,323	3,696	4,307	209,490
915-Injuries and Damages Load	45,671	599	571	685	573	355	354	854	545	570	757	842	982	53,360
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	110,381	1,585	1,510	1,811	1,515	938	935	2,257	1,441	1,508	2,002	2,227	2,595	130,704
922-Minor Material Load	61,072	0	0	0	0	0	0	0	0	0	0	0	0	61,072
925-E and S Loads	544,046	4,862	4,632	5,556	4,840	2,879	3,252	6,927	4,807	4,626	6,299	6,832	7,962	607,520
926-A and G Loads	250,364	1,434	1,366	1,639	1,438	849	980	2,043	1,439	1,364	1,866	2,015	2,348	269,145
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	4,263,623	32,966	31,405	37,672	32,776	19,517	21,966	46,965	32,504	31,362	42,675	46,325	53,982	4,693,738
825-Clearings	-4,500,121	-25,531	-31,804	-35,524	-13,980	-19,618	-29,106	-16,695	-19,793	-71,627	-38,110	-28,135	-87,595	-4,917,638
Clr Sum	-4,500,121	-25,531	-31,804	-35,524	-13,980	-19,618	-29,106	-16,695	-19,793	-71,627	-38,110	-28,135	-87,595	-4,917,638
Proj Net	-236,498	7,435	-398	2,148	18,796	-101	-7,140	30,270	12,711	-40,265	4,565	18,190	-33,613	-223,900

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***Project No: 20000707 Distr. System Improvements***

Company: 001-Electric Services  
Location: 200 Distribution

Project Information

Construction Start Date                      1/1/2015                      Estimated Completion Date

List Interim In-Service Dates

Project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

Annual load analysis and modeling of the distribution system identified possible operational issues caused by normal load growth and obsolete/problematic equipment, which will necessitate improvements and line extensions to serve new customers. These improvements are necessary to meet the standards for service as required of New Mexico Administrative Code (NMAC) Rule 17.9.560.15.

Project Alternatives

Alternatives are evaluated on a case-by case basis. This usually involves analysis by PNM’s Distribution Planning or Distribution Protection departments using simulation models of the distribution system. With these models, engineers will evaluate different equipment or configuration alternatives to arrive at the best solutions for maintaining adequate voltage to all customers, enhance reliability and ensure the most cost effective and practical solution.

Technical Aspects

This project provides for numerous small distribution facility improvements including the design and installation of conduit systems, cable, wire, poles, overhead and underground switches, voltage and power factor supporting devices, and protection equipment. Further work includes replacement of vandalized copper pole grounds with copper clad steel grounds (which are less susceptible to theft) and equipment to prevent birds and small animals from electrocution and service interruption.

Project Estimate Approach

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

Cost Year 01

Project	20000707	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	190,600			5,500	7,752	10,131	2,936	1,502	4,900	223,321		
120-Overtime-General	32,865			1,000	500	1,000	550	1,100	230	37,245		
350-Material Issues-Major	472,570			15,000	15,000	15,000	10,600	10,600	2,195	540,965		
370-Outside Services	114,016			35,000	45,000	40,000	231,866	216,916	126,866	809,663		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	2,675			0	0	0	0	0	0	2,675		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	1,735			0	0	0	0	0	0	1,735		
610-Expenses - General	0			6,500	5,500	9,000	6,500	3,800	1,500	32,800		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	-37,065			0	0	0	0	0	0	-37,065		
829-Construction Adjustment	0			0	0	0	-2,007	-2,007	-2,007	-6,020		
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	18,178			512	649	876	274	205	404	21,098		
914-Pension and Benefits Load	66,881			1,946	2,471	3,333	1,044	779	1,536	77,989		
915-Injuries and Damages Load	18,128			424	538	726	227	170	334	20,547		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	36,833			1,668	1,668	1,668	1,179	1,179	244	44,439		
922-Minor Material Load	29,409			0	0	0	0	0	0	29,409		
925-E and S Loads	145,916			12,188	14,321	14,812	46,989	43,488	25,523	303,238		
926-A and G Loads	66,227			5,242	6,136	6,251	21,004	19,462	11,289	135,611		
928-AFUDC Debt Reg	11,403			357	494	633	963	1,532	1,657	17,039		
929-AFUDC - Equity Regular	12,252			387	535	686	1,043	1,659	1,794	18,355		
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	1,182,624			85,723	100,564	104,115	323,169	300,385	176,466	2,273,045		
825-Clearings	-1,284,175			-32,262	-40,491	-66,712	-59,002	-182,908	-131,993	-1,797,543		
Clr Sum	-1,284,175			-32,262	-40,491	-66,712	-59,002	-182,908	-131,993	-1,797,543		
Proj Net	-101,551			53,461	60,073	37,403	264,167	117,476	44,472	475,502		

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

Cost Year 02

Project	20000707	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	223,321	2,518	13,112	4,492	1,863	3,574	7,255	4,568	4,033	9,674	8,180	5,652	5,934	294,176
120-Overtime-General	37,245	283	1,473	505	209	402	815	513	453	1,087	919	635	667	45,206
350-Material Issues-Major	540,965	2,662	13,865	4,750	1,970	3,779	7,672	4,831	4,264	10,229	8,650	5,976	6,275	615,888
370-Outside Services	809,663	1,598	8,324	2,852	1,183	2,268	4,606	2,900	2,560	6,141	5,193	3,588	3,767	854,643
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	2,675	0	0	0	0	0	0	0	0	0	0	0	0	2,675
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	1,735	0	0	0	0	0	0	0	0	0	0	0	0	1,735
610-Expenses - General	32,800	1,521	7,922	2,714	1,125	2,159	4,383	2,760	2,436	5,845	4,942	3,415	3,585	75,607
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-37,065	0	0	0	0	0	0	0	0	0	0	0	0	-37,065
829-Construction Adjustment	-6,020	-2,574	-2,574	0	0	0	0	0	0	0	0	0	0	-11,168
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	21,098	220	1,143	392	162	312	633	398	352	844	713	493	518	27,277
914-Pension and Benefits Load	77,989	764	3,980	1,364	565	1,085	2,202	1,387	1,224	2,937	2,483	1,716	1,801	99,498
915-Injuries and Damages Load	20,547	174	907	311	129	247	502	316	279	669	566	391	411	25,450
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	44,439	461	2,399	822	341	654	1,327	836	738	1,770	1,496	1,034	1,086	57,401
922-Minor Material Load	29,409	0	0	0	0	0	0	0	0	0	0	0	0	29,409
925-E and S Loads	303,238	1,870	9,740	3,337	1,384	2,655	5,389	3,393	2,995	7,186	6,076	4,198	4,408	355,869
926-A and G Loads	135,611	577	3,004	1,029	427	819	1,662	1,046	924	2,216	1,874	1,295	1,359	151,842
928-AFUDC Debt Reg	17,039	1,819	1,705	1,485	1,348	1,023	1,010	942	889	902	881	796	792	30,631
929-AFUDC - Equity Regular	18,355	2,387	2,236	1,948	1,767	1,342	1,325	1,236	1,166	1,183	1,155	1,045	1,039	36,184
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	2,273,045	14,280	67,236	26,001	12,473	20,318	38,781	25,127	22,312	50,681	43,129	30,234	31,641	2,655,258
825-Clearings	-1,797,543	-84,869	-131,026	-72,313	-141,262	-34,485	-58,072	-44,343	-31,534	-54,910	-69,142	-32,640	-125,059	-2,677,199
Clr Sum	-1,797,543	-84,869	-131,026	-72,313	-141,262	-34,485	-58,072	-44,343	-31,534	-54,910	-69,142	-32,640	-125,059	-2,677,199
Proj Net	475,502	-70,590	-63,790	-46,313	-128,789	-14,167	-19,291	-19,216	-9,222	-4,229	-26,013	-2,407	-93,418	-21,941

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

Cost Year 03

Project	20000707	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	294,176	2,568	13,374	4,582	1,900	3,645	7,400	4,660	4,113	9,867	8,344	5,765	6,052	366,446
120-Overtime-General	45,206	289	1,503	515	214	410	832	524	462	1,109	938	648	680	53,330
350-Material Issues-Major	615,888	2,702	14,073	4,821	1,999	3,835	7,787	4,903	4,328	10,383	8,779	6,066	6,369	691,933
370-Outside Services	854,643	1,622	8,448	2,894	1,200	2,303	4,675	2,943	2,598	6,233	5,271	3,642	3,823	900,295
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	2,675	0	0	0	0	0	0	0	0	0	0	0	0	2,675
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	1,735	0	0	0	0	0	0	0	0	0	0	0	0	1,735
610-Expenses - General	75,607	1,544	8,041	2,755	1,142	2,191	4,449	2,801	2,473	5,932	5,016	3,466	3,639	119,056
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-37,065	0	0	0	0	0	0	0	0	0	0	0	0	-37,065
829-Construction Adjustment	-11,168	0	0	0	0	0	0	0	0	0	0	0	0	-11,168
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	27,277	224	1,166	400	166	318	645	406	359	861	728	503	528	33,580
914-Pension and Benefits Load	99,498	780	4,060	1,391	577	1,107	2,247	1,415	1,249	2,995	2,533	1,750	1,837	121,437
915-Injuries and Damages Load	25,450	178	925	317	131	252	512	322	285	683	577	399	419	30,450
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	57,401	467	2,435	834	346	663	1,347	848	749	1,796	1,519	1,049	1,102	70,556
922-Minor Material Load	29,409	0	0	0	0	0	0	0	0	0	0	0	0	29,409
925-E and S Loads	355,869	1,902	9,905	3,394	1,407	2,700	5,481	3,451	3,046	7,308	6,180	4,270	4,483	409,395
926-A and G Loads	151,842	586	3,054	1,046	434	832	1,690	1,064	939	2,253	1,905	1,316	1,382	168,342
928-AFUDC Debt Reg	30,631	527	582	600	567	449	483	489	487	535	568	543	564	37,025
929-AFUDC - Equity Regular	36,184	475	524	541	511	405	436	440	439	482	512	489	508	41,947
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	2,655,258	13,865	68,090	24,089	10,594	19,111	37,984	24,267	21,525	50,436	42,869	29,906	31,384	3,029,379
825-Clearings	-2,677,199	-20,122	-39,015	-29,989	-60,041	-15,552	-29,106	-23,604	-17,647	-33,985	-45,896	-22,665	-90,511	-3,105,333
Clr Sum	-2,677,199	-20,122	-39,015	-29,989	-60,041	-15,552	-29,106	-23,604	-17,647	-33,985	-45,896	-22,665	-90,511	-3,105,333
Proj Net	-21,941	-6,257	29,075	-5,899	-49,447	3,559	8,878	662	3,878	16,451	-3,027	7,241	-59,127	-75,954

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**Project No: 41000207 Line Extensions - Commercial**

Company: 001-Electric Services  
Location: 410 Distribution

Project Information

Construction Start Date 1/1/2016 Estimated Completion Date

List Interim In-Service Dates

Project consists of many individual customer work orders which are placed in service at various times throughout the year.

Project Need Justification

This project is necessary to meet PNM’s obligation to serve new customers and provides for the installation of distribution line extensions necessary to serve new or expanding non-residential customers.

Project Alternatives

Because this project is necessary for PNM to serve new customers, there are no alternatives to conducting this work. Nonetheless, line extension options for each new service request are evaluated individually taking into account many factors such as available capacity on existing lines, route distances, customer preferences, and right-of way requirements, per PNM Rule 15. The best method for the extension is selected based on a balance of cost, timing, and efficacy.

Technical Aspects

Line extensions are designed to the minimum system requirements in accordance with PNM Rule 15. Physical components include but are not limited to primary wires, secondary wires, wood or steel poles and other supporting structures, trenches, switchgear, and duct-bank systems.

Project Estimate Approach

The initial budget for this project was developed by applying escalation factors to the most recent 12-month actual spend (May 2014). This project provides for PNM’s portion of the cost of these line extensions, less the portion customers are responsible for under PNM's Rule 15 Line Extension Policy approved by the New Mexico Public Regulatory Commission. Per Rule 15, customers have the option to have the line extension built by PNM (PNM Built) or by a qualified contractor employed by the customer (Customer Built Option). Under the Customer Built Option, PNM purchases the system from the customer for \$1 and pays the customer for the entitled credits less PNM’s cost to design and energize the system. These funds will cover the costs of installing distribution line extensions necessary to serve new or expanding non-residential customers, including the costs for engineering, design, right-of-way acquisition, environmental review, and construction. The costs also include materials for the installation of the overhead or underground distribution extensions. The specific work items for this blanket will not be known until after the customer requests’ are received. As a result, the work and the associated costs are unknown until after the budget is developed, with much of the work identified during the year of spend. Forecasted spend is adjusted quarterly as appropriate for trends in new service activity. Costs are typically 60% materials; 25% labor; 15% outside services. This breakdown fluctuates for each project depending on the specifics and complexity of the project and whether or not PNM or contract construction crews are used and also varies for the entire project from year-to-year depending on the conditions and events that occur during that period.

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

Cost Year 01

Project	41000207	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	942,638		5,000	5,000	5,000	5,000	5,000	5,978	973,616		
	120-Overtime-General	71,407		1,170	999	179	452	1,734	937	76,878		
	350-Material Issues-Major	2,377,852		9,000	3,995	32,000	20,000	20,000	28,464	2,491,311		
	370-Outside Services	1,868,761		4,000	4,000	713	4,000	4,000	4,000	1,889,474		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	152,947		0	0	0	0	0	0	152,947		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	1,503		0	0	0	0	0	0	1,503		
	610-Expenses - General	34,199		4,907	4,943	4,793	6,290	3,530	3,550	62,212		
	805-Land and Land Rights	0		0	0	0	0	0	0	0		
	807-Non Refundable Contribution	-5,687,828		-29,000	-18,573	-35,000	-45,397	-25,000	-32,378	-5,873,176		
	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	84,413		486	472	408	429	530	544	87,282		
	914-Pension and Benefits Load	321,951		1,847	1,796	1,551	1,632	2,016	2,070	332,864		
	915-Injuries and Damages Load	84,100		402	391	338	355	439	451	86,476		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	246,131		1,001	444	3,558	2,224	2,224	3,165	258,748		
	922-Minor Material Load	180,113		0	0	0	0	0	0	180,113		
	925-E and S Loads	1,114,732		4,960	3,995	8,321	7,059	6,891	8,509	1,154,469		
	926-A and G Loads	382,100		2,003	1,576	3,551	2,974	2,851	3,572	398,626		
	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	2,175,020		5,776	9,038	25,412	5,019	24,215	28,862	2,273,344		
	825-Clearings	-2,945,249		-12,778	-11,806	-15,343	-12,659	-15,664	-19,095	-3,032,594		
	Clr Sum	-2,945,249		-12,778	-11,806	-15,343	-12,659	-15,664	-19,095	-3,032,594		
	Proj Net	-770,229		-7,001	-2,767	10,069	-7,640	8,552	9,767	-759,250		

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

Cost Year 02

Project	41000207	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	973,616	9,643	7,746	7,370	2,406	13,206	423	-2,149	14,946	47,131	27,808	7,385	4,380	1,113,913	
120-Overtime-General	76,878	547	440	418	137	749	24	-122	848	2,675	1,578	419	747	85,339	
350-Material Issues-Major	2,491,311	11,588	9,308	8,856	2,892	15,869	509	-2,582	17,960	56,635	33,416	8,874	24,258	2,678,892	
370-Outside Services	1,889,474	15,207	12,215	11,622	3,795	20,825	667	-3,388	23,569	74,323	43,852	11,646	62,661	2,166,469	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	152,947	0	0	0	0	0	0	0	0	0	0	0	0	152,947	
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	1,503	0	0	0	0	0	0	0	0	0	0	0	0	1,503	
610-Expenses - General	62,212	4,180	3,357	3,194	1,043	5,724	183	-931	6,478	20,428	12,053	3,201	2,052	123,174	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-5,873,176	-33,776	-27,132	-25,814	-8,429	-46,255	-1,483	7,526	-52,350	-165,082	-97,402	-25,868	-63,718	-6,412,957	
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	87,282	799	642	611	199	1,094	35	-178	1,238	3,905	2,304	612	402	98,944	
914-Pension and Benefits Load	332,864	2,781	2,234	2,125	694	3,808	122	-620	4,310	13,592	8,020	2,130	1,399	373,460	
915-Injuries and Damages Load	86,476	634	509	484	158	868	28	-141	982	3,098	1,828	485	319	95,729	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	258,748	2,005	1,610	1,532	500	2,745	88	-447	3,107	9,798	5,781	1,535	4,197	291,199	
922-Minor Material Load	180,113	0	0	0	0	0	0	0	0	0	0	0	0	180,113	
925-E and S Loads	1,154,469	8,713	6,999	6,659	2,174	11,931	382	-1,941	13,504	42,583	25,125	6,673	18,474	1,295,743	
926-A and G Loads	398,626	2,766	2,222	2,114	690	3,788	121	-616	4,287	13,520	7,977	2,119	6,323	443,939	
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	2,273,344	25,085	20,151	19,171	6,260	34,353	1,101	-5,589	38,879	122,604	72,339	19,212	61,495	2,688,405	
825-Clearings	-3,032,594	-63,260	-9,284	-13,452	-10,804	-7,170	-18,927	-2,424	-6,782	-34,162	-18,084	-22,289	-186,514	-3,425,747	
Clr Sum	-3,032,594	-63,260	-9,284	-13,452	-10,804	-7,170	-18,927	-2,424	-6,782	-34,162	-18,084	-22,289	-186,514	-3,425,747	
Proj Net	-759,250	-38,175	10,867	5,720	-4,544	27,183	-17,826	-8,014	32,097	88,442	54,255	-3,078	-125,019	-737,342	

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

Cost Year 03

Project	41000207	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	1,113,913	6,210	6,743	5,417	5,154	1,683	9,235	296	-1,502	10,451	32,958	19,446	5,164	1,215,166	
120-Overtime-General	85,339	352	383	307	292	95	524	17	-85	593	1,870	1,104	293	91,085	
350-Material Issues-Major	2,678,892	7,426	8,063	6,477	6,162	2,012	11,042	354	-1,797	12,497	39,409	23,252	6,175	2,799,966	
370-Outside Services	2,166,469	9,745	10,582	8,500	8,087	2,641	14,491	464	-2,358	16,400	51,718	30,515	8,104	2,325,358	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	152,947	0	0	0	0	0	0	0	0	0	0	0	0	152,947	
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	1,503	0	0	0	0	0	0	0	0	0	0	0	0	1,503	
610-Expenses - General	123,174	2,678	2,908	2,336	2,223	726	3,983	128	-648	4,508	14,215	8,387	2,227	166,845	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-6,412,957	-21,644	-23,503	-18,880	-17,962	-5,865	-32,187	-1,032	5,237	-36,428	-114,873	-67,777	-18,000	-6,765,872	
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	98,944	514	559	449	427	139	765	25	-124	866	2,731	1,611	428	107,333	
914-Pension and Benefits Load	373,460	1,791	1,945	1,562	1,486	485	2,663	85	-433	3,014	9,505	5,608	1,489	402,660	
915-Injuries and Damages Load	95,729	408	443	356	339	111	607	19	-99	687	2,166	1,278	339	102,384	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	291,199	1,285	1,395	1,121	1,066	348	1,910	61	-311	2,162	6,818	4,023	1,068	312,145	
922-Minor Material Load	180,113	0	0	0	0	0	0	0	0	0	0	0	0	180,113	
925-E and S Loads	1,295,743	5,592	6,072	4,878	4,641	1,515	8,316	267	-1,353	9,411	29,678	17,510	4,650	1,386,920	
926-A and G Loads	443,939	1,775	1,927	1,548	1,473	481	2,639	85	-429	2,987	9,419	5,558	1,476	472,877	
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	2,688,405	16,131	17,517	14,071	13,387	4,371	23,988	769	-3,903	27,149	85,613	50,514	13,415	2,951,428	
825-Clearings	-3,425,747	-73,577	-9,285	-11,968	-11,777	-4,025	-18,455	-2,835	-3,039	-10,155	-10,588	-16,965	-118,259	-3,716,676	
Clr Sum	-3,425,747	-73,577	-9,285	-11,968	-11,777	-4,025	-18,455	-2,835	-3,039	-10,155	-10,588	-16,965	-118,259	-3,716,676	
Proj Net	-737,342	-57,446	8,232	2,103	1,610	346	5,534	-2,066	-6,942	16,994	75,025	33,549	-104,844	-765,248	

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**Project No: 41000607 Distr. Remove & Replace**

Company: 001-Electric Services  
Location: 410 Distribution

Project Information

Construction Start Date 1/1/2016 Estimated Completion Date

List Interim In-Service Dates

This project consists of individual work orders placed in service at various times throughout the year as determined by governmental road widening schedules and the occurrence of significant storms.

Project Need Justification

This project is primarily for the replacement of storm damaged equipment within the service area and other repairs as a result of government-led roadway improvement projects. The work is required under franchise agreements or as necessary for maintaining system integrity, restoring power after storms, and for the safe and reliable operation of the distribution facilities.

Project Alternatives

These projects are a result of government franchise agreements and/or to repair storm-damaged facilities. Therefore, limits project alternatives available. In most cases, work will involve the replacement of like for like equipment. Other configurations will be evaluated on a case-by-case basis taking into account the best options available.

Technical Aspects

This project includes relocation of electric distribution facilities in road rights-of-way and also the removal and replacement of existing electric distribution facilities that have been damaged during storms or deteriorated through normal aging. Work will include the design, installation, and removal of wire, poles, pole hardware (including insulators, cross arms, cut outs, anchor assemblies, overhead and underground switches, protection equipment, underground cable and conduits) and other equipment.

Project Estimate Approach

The activities for this project include governmental roadway improvement projects, replacement of storm damaged facilities and customer requested relocation. The specific work required is unknown at the time when the spend forecast is developed. Historical spend in this funding project is analyzed to develop the estimated spend. The initial budget for this project is developed by applying escalators to the actual 12 months spend ending May 2014. The annual spend rate ending in May 2014 was much higher than usual due to a large storm event in 2013 and large roadway improvement projects during that time period. Thus the initial budget was scaled back to reflect a more moderate spend rate experienced in years prior to 2014 and to help meet overall budget targets.

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

Cost Year 01

Project	41000607	Year	2016									
	Cost Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	810,267		10,342	13,283	15,631	9,636	8,938	6,019	874,116		
	120-Overtime-General	280,831		9,000	9,000	9,000	9,000	9,000	9,000	334,831		
	350-Material Issues-Major	1,452,367		14,000	14,000	18,000	14,000	14,000	14,000	1,540,367		
	370-Outside Services	1,514,517		8,000	7,539	8,651	40,107	23,921	33,294	1,636,029		
	374-Outside Svcs Legal	1,774		0	0	0	0	0	0	1,774		
	377-Outside Services-Temp Labor	106,849		0	0	0	0	0	0	106,849		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	878		0	0	0	0	0	0	878		
	610-Expenses - General	0		9,454	7,382	10,873	8,645	4,282	6,082	46,718		
	805-Land and Land Rights	0		0	0	0	0	0	0	0		
	807-Non Refundable Contribution	-2,228,484		-5,248	-2,065	5,527	-35,613	-8,187	-60,029	-2,334,099		
	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	89,015		1,522	1,754	1,938	1,467	1,412	1,182	98,289		
	914-Pension and Benefits Load	335,044		5,791	6,672	7,375	5,580	5,371	4,497	370,328		
	915-Injuries and Damages Load	88,871		1,261	1,453	1,606	1,215	1,170	979	96,554		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	161,385		1,557	1,557	2,002	1,557	1,557	1,557	171,170		
	922-Minor Material Load	108,412		0	0	0	0	0	0	108,412		
	925-E and S Loads	778,164		10,984	11,300	13,519	16,585	12,597	13,885	857,033		
	926-A and G Loads	314,791		4,226	4,260	5,171	6,771	5,004	5,690	345,915		
	928-AFUDC Debt Reg	184		0	0	0	0	0	0	184		
	929-AFUDC - Equity Regular	251		0	0	0	0	0	0	251		
	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	3,815,113		70,889	76,134	99,292	78,950	79,064	36,156	4,255,598		
	825-Clearings	-3,808,089		-270,245	-208,130	-173,302	-143,109	-122,615	-94,948	-4,820,438		
	Clr Sum	-3,808,089		-270,245	-208,130	-173,302	-143,109	-122,615	-94,948	-4,820,438		
Proj Net		7,024		-199,357	-131,996	-74,009	-64,159	-43,551	-58,792	-564,840		

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

Cost Year 02

Project	41000607	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	874,116	14,658	7,127	8,274	13,935	14,648	25,930	-2,378	32,720	21,161	23,278	24,353	3,351	1,061,173
120-Overtime-General	334,831	3,642	1,771	2,056	3,463	3,640	6,444	-591	8,131	5,259	5,785	6,052	2,118	382,600
350-Material Issues-Major	1,540,367	19,959	9,704	11,266	18,975	19,946	35,308	-3,237	44,554	28,814	31,696	33,160	9,922	1,800,432
370-Outside Services	1,636,029	19,262	9,365	10,873	18,312	19,250	34,075	-3,124	42,999	27,808	30,590	32,003	42,548	1,919,990
374-Outside Svcs Legal	1,774	0	0	0	0	0	0	0	0	0	0	0	0	1,774
377-Outside Services-Temp Labor	106,849	10	5	6	10	10	18	-2	23	15	16	17	0	106,975
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	878	0	0	0	0	0	0	0	0	0	0	0	0	878
610-Expenses - General	46,718	11,094	5,394	6,262	10,547	11,087	19,626	-1,800	24,766	16,017	17,619	18,432	2,771	188,534
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-2,334,099	-10,758	-5,231	-6,072	-10,227	-10,751	-19,031	1,745	-24,015	-15,531	-17,084	-17,873	-18,037	-2,486,965
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	98,289	1,435	698	810	1,364	1,434	2,538	-233	3,203	2,071	2,278	2,384	429	116,700
914-Pension and Benefits Load	370,328	4,994	2,428	2,819	4,748	4,991	8,835	-810	11,148	7,210	7,931	8,297	1,493	434,412
915-Injuries and Damages Load	96,554	1,138	553	643	1,082	1,138	2,014	-185	2,541	1,643	1,808	1,891	340	111,161
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	171,170	3,453	1,679	1,949	3,283	3,451	6,108	-560	7,708	4,985	5,483	5,737	1,717	216,162
922-Minor Material Load	108,412	0	0	0	0	0	0	0	0	0	0	0	0	108,412
925-E and S Loads	857,033	14,629	7,113	8,257	13,908	14,619	25,879	-2,373	32,656	21,120	23,232	24,305	12,091	1,052,469
926-A and G Loads	345,915	4,612	2,242	2,603	4,384	4,609	8,158	-748	10,294	6,658	7,324	7,662	4,080	407,792
928-AFUDC Debt Reg	184	0	0	0	0	0	0	0	0	0	0	0	0	184
929-AFUDC - Equity Regular	251	0	0	0	0	0	0	0	0	0	0	0	0	251
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	4,255,598	88,128	42,849	49,744	83,783	88,070	155,902	-14,294	196,727	127,229	139,955	146,418	62,823	5,422,933
825-Clearings	-4,820,438	-78,271	-114,511	-189,703	-83,783	-78,911	-116,649	-10,604	-39,798	-203,341	-120,360	-101,947	-231,221	-6,189,537
Clr Sum	-4,820,438	-78,271	-114,511	-189,703	-83,783	-78,911	-116,649	-10,604	-39,798	-203,341	-120,360	-101,947	-231,221	-6,189,537
Proj Net	-564,840	9,857	-71,663	-139,958	0	9,159	39,253	-24,898	156,930	-76,112	19,595	44,471	-168,398	-766,604

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

Cost Year 03

Project	41000607	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	1,061,173	15,223	17,490	8,504	9,872	16,628	17,479	30,941	-2,837	39,043	25,250	27,776	29,058	1,295,599
120-Overtime-General	382,600	3,783	4,346	2,113	2,453	4,132	4,343	7,689	-705	9,702	6,275	6,902	7,221	440,855
350-Material Issues-Major	1,800,432	20,627	23,698	11,522	13,377	22,530	23,683	41,924	-3,844	52,902	34,213	37,635	39,373	2,118,073
370-Outside Services	1,919,990	19,907	22,871	11,120	12,910	21,744	22,856	40,460	-3,710	51,056	33,019	36,322	37,999	2,226,545
374-Outside Svcs Legal	1,774	0	0	0	0	0	0	0	0	0	0	0	0	1,774
377-Outside Services-Temp Labor	106,975	10	12	6	7	11	12	21	-2	27	17	19	20	107,136
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	878	0	0	0	0	0	0	0	0	0	0	0	0	878
610-Expenses - General	188,534	11,466	13,173	6,405	7,436	12,524	13,164	23,304	-2,137	29,406	19,018	20,920	21,886	365,098
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-2,486,965	-11,118	-12,774	-6,211	-7,210	-12,144	-12,765	-22,597	2,072	-28,515	-18,441	-20,286	-21,223	-2,658,176
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	116,700	1,490	1,712	832	966	1,628	1,711	3,029	-278	3,822	2,472	2,719	2,844	139,646
914-Pension and Benefits Load	434,412	5,187	5,959	2,897	3,364	5,665	5,955	10,542	-967	13,302	8,603	9,464	9,901	514,284
915-Injuries and Damages Load	111,161	1,182	1,358	660	767	1,291	1,357	2,403	-220	3,032	1,961	2,157	2,257	129,365
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	216,162	3,569	4,100	1,993	2,314	3,898	4,097	7,253	-665	9,152	5,919	6,511	6,812	271,113
922-Minor Material Load	108,412	0	0	0	0	0	0	0	0	0	0	0	0	108,412
925-E and S Loads	1,052,469	15,144	17,399	8,460	9,821	16,541	17,388	30,780	-2,822	38,840	25,119	27,631	28,907	1,285,677
926-A and G Loads	407,792	4,772	5,483	2,666	3,095	5,213	5,479	9,700	-889	12,239	7,916	8,707	9,109	481,282
928-AFUDC Debt Reg	184	0	0	0	0	0	0	0	0	0	0	0	0	184
929-AFUDC - Equity Regular	251	0	0	0	0	0	0	0	0	0	0	0	0	251
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	5,422,933	91,244	104,829	50,969	59,171	99,660	104,760	185,446	-17,003	234,008	151,339	166,477	174,165	6,827,997
825-Clearings	-6,189,537	-24,636	-77,146	-145,259	-59,171	-89,296	-81,359	-68,131	-24,228	-227,256	-132,015	-114,036	-362,532	-7,594,601
Clr Sum	-6,189,537	-24,636	-77,146	-145,259	-59,171	-89,296	-81,359	-68,131	-24,228	-227,256	-132,015	-114,036	-362,532	-7,594,601
Proj Net	-766,604	66,608	27,682	-94,290	0	10,365	23,401	117,315	-41,231	6,752	19,324	52,441	-188,367	-766,604

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***Project No: 41000707 Distr. System Improvements***

Company: 001-Electric Services  
Location: 410 Distribution

Project Information

Construction Start Date                      1/1/2016                      Estimated Completion Date  
List Interim In-Service Dates

This project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

Annual load analysis and modeling of the distribution system identified possible operational issues caused by normal load growth and obsolete/problematic equipment, which will necessitate improvements and line extensions to serve new customers. These improvements are necessary to meet the standards for service as required of New Mexico Administrative Code (NMAC) Rule 17.9.560.15.

Project Alternatives

Alternatives are evaluated on a case-by case basis. This usually involves analysis by PNM’s Distribution Planning or Distribution Protection departments using simulation models of the distribution system. With these models, engineers will evaluate different equipment or configuration alternatives to arrive at the best solutions for maintaining adequate voltage to all customers, enhance reliability and ensure the most cost effective and practical solution.

Technical Aspects

This project provides for numerous small distribution facility improvements including the design and installation of conduit systems, cable, wire, poles, overhead and underground switches, voltage and power factor supporting devices, and protection equipment. Further system work will include replacement of vandalized copper pole grounds with copper clad steel grounds which are less susceptible to theft and installation of equipment to prevent birds and small animals from electrocution that causes outages.

Project Estimate Approach

Historical spend in this funding project is analyzed to develop this project’s estimated spend. The initial budget for this project is developed by applying escalators to the actual 12 months spend ending May 2014. The annual spend rate ending in May 2014 was higher than usual due to the need to replace vandalized pole grounds during that time period. Thus the initial budget was scaled back to reflect a spend rate more consistent with that in years prior to 2014.

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

Cost Year 01

Project	41000707	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	702,066		8,000	8,000	8,000	8,000	10,739	8,000	752,805		
	120-Overtime-General	122,961		37	38	380	430	2,537	10,476	136,860		
	350-Material Issues-Major	2,220,217		18,453	16,000	17,000	16,000	56,996	54,801	2,399,467		
	370-Outside Services	2,435,143		3,134	12,000	4,114	35,544	25,684	52,223	2,567,842		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	52,168		0	0	0	0	0	0	52,168		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	582		0	0	0	0	0	0	582		
	610-Expenses - General	0		1,917	764	1,706	1,335	2,372	3,950	12,046		
	805-Land and Land Rights	14,475		0	0	0	0	0	0	14,475		
	807-Non Refundable Contribution	-142,560		0	0	0	0	0	0	-142,560		
	829-Construction Adjustment	0		0	0	0	-825	-825	-825	-2,476		
	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	66,719		633	633	660	663	1,045	1,454	71,806		
	914-Pension and Benefits Load	248,760		2,406	2,407	2,509	2,524	3,975	5,532	268,113		
	915-Injuries and Damages Load	67,902		524	524	546	550	866	1,205	72,117		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	265,721		2,052	1,779	1,890	1,779	6,338	6,094	285,654		
	922-Minor Material Load	179,781		0	0	0	0	0	0	179,781		
	925-E and S Loads	1,003,611		6,494	7,468	6,459	12,034	19,280	25,463	1,080,809		
	926-A and G Loads	403,959		2,624	3,062	2,596	5,101	8,181	10,770	436,293		
	928-AFUDC Debt Reg	163,009		1,038	683	477	396	435	539	166,577		
	929-AFUDC - Equity Regular	111,141		1,124	740	516	429	471	584	115,005		
	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	7,915,656		48,436	54,098	46,855	83,960	138,093	180,265	8,467,364		
	825-Clearings	-7,418,538		-208,833	-142,297	-101,257	-93,819	-112,857	-141,843	-8,219,443		
	Clr Sum	-7,418,538		-208,833	-142,297	-101,257	-93,819	-112,857	-141,843	-8,219,443		
	Proj Net	497,119		-160,397	-88,199	-54,402	-9,859	25,236	38,423	247,921		

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

Cost Year 02

Project	41000707	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	752,805	24,176	21,626	13,429	17,253	5,832	5,943	8,363	2,489	11,544	27,126	36,825	12,289	939,701
120-Overtime-General	136,860	4,987	4,461	2,770	3,559	1,203	1,226	1,725	513	2,381	5,595	7,596	3,730	176,607
350-Material Issues-Major	2,399,467	1,001	895	556	714	241	246	346	103	478	1,123	1,524	34,923	2,441,618
370-Outside Services	2,567,842	52,079	46,586	28,929	37,166	12,563	12,803	18,015	5,361	24,868	58,435	79,328	133,877	3,077,851
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	52,168	0	0	0	0	0	0	0	0	0	0	0	0	52,168
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	582	0	0	0	0	0	0	0	0	0	0	0	0	582
610-Expenses - General	12,046	13,315	11,911	7,396	9,502	3,212	3,273	4,606	1,371	6,358	14,940	20,281	6,142	114,352
805-Land and Land Rights	14,475	0	0	0	0	0	0	0	0	0	0	0	0	14,475
807-Non Refundable Contribution	-142,560	-6,813	-6,094	-3,784	-4,862	-1,643	-1,675	-2,357	-701	-3,253	-7,644	-10,377	-393	-192,157
829-Construction Adjustment	-2,476	-1,059	-347	0	0	0	0	0	0	0	0	0	0	-3,882
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	71,806	2,286	2,045	1,270	1,632	552	562	791	235	1,092	2,565	3,483	1,256	89,575
914-Pension and Benefits Load	268,113	7,959	7,119	4,421	5,680	1,920	1,956	2,753	819	3,800	8,930	12,123	4,372	329,964
915-Injuries and Damages Load	72,117	1,814	1,623	1,008	1,294	438	446	627	187	866	2,035	2,763	996	86,214
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	285,654	173	155	96	124	42	43	60	18	83	194	264	6,042	292,946
922-Minor Material Load	179,781	0	0	0	0	0	0	0	0	0	0	0	0	179,781
925-E and S Loads	1,080,809	20,662	18,483	11,478	14,746	4,984	5,079	7,148	2,127	9,866	23,184	31,473	37,936	1,267,976
926-A and G Loads	436,293	6,421	5,744	3,567	4,583	1,549	1,579	2,221	661	3,066	7,205	9,781	12,833	495,504
928-AFUDC Debt Reg	166,577	656	149	334	407	412	404	362	375	429	615	932	1,321	172,973
929-AFUDC - Equity Regular	115,005	860	195	438	534	541	530	475	492	563	806	1,222	1,732	123,396
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	8,467,364	128,518	114,551	71,908	92,331	31,844	32,416	45,137	14,051	62,141	145,110	197,217	257,056	9,659,643
825-Clearings	-8,219,443	-316,542	-21,891	-53,978	-60,186	-35,230	-54,896	-24,641	-17,292	-32,285	-49,207	-77,478	-362,842	-9,325,911
Clr Sum	-8,219,443	-316,542	-21,891	-53,978	-60,186	-35,230	-54,896	-24,641	-17,292	-32,285	-49,207	-77,478	-362,842	-9,325,911
Proj Net	247,921	-188,024	92,660	17,930	32,145	-3,386	-22,480	20,496	-3,241	29,855	95,903	119,739	-105,786	333,732

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

Cost Year 03

Project 41000707	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	939,701	11,544	24,660	22,059	13,698	17,598	5,948	6,062	8,530	2,539	11,775	27,669	37,562	1,129,344
120-Overtime-General	176,607	2,381	5,087	4,550	2,825	3,630	1,227	1,250	1,760	524	2,429	5,707	7,748	215,725
350-Material Issues-Major	2,441,618	476	1,016	909	564	725	245	250	351	105	485	1,140	1,547	2,449,430
370-Outside Services	3,077,851	24,746	52,861	47,285	29,363	37,723	12,751	12,995	18,286	5,442	25,241	59,311	80,518	3,484,371
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	52,168	0	0	0	0	0	0	0	0	0	0	0	0	52,168
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	582	0	0	0	0	0	0	0	0	0	0	0	0	582
610-Expenses - General	114,352	6,327	13,515	12,089	7,507	9,645	3,260	3,322	4,675	1,391	6,453	15,164	20,586	218,286
805-Land and Land Rights	14,475	0	0	0	0	0	0	0	0	0	0	0	0	14,475
807-Non Refundable Contribution	-192,157	-3,237	-6,915	-6,186	-3,841	-4,935	-1,668	-1,700	-2,392	-712	-3,302	-7,759	-10,533	-245,336
829-Construction Adjustment	-3,882	0	0	0	0	0	0	0	0	0	0	0	0	-3,882
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	89,575	1,092	2,332	2,086	1,295	1,664	563	573	807	240	1,114	2,617	3,552	107,510
914-Pension and Benefits Load	329,964	3,800	8,118	7,262	4,509	5,793	1,958	1,996	2,808	836	3,876	9,108	12,365	392,393
915-Injuries and Damages Load	86,214	866	1,850	1,655	1,028	1,320	446	455	640	190	883	2,076	2,818	100,443
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	292,946	82	176	157	98	125	42	43	61	18	84	197	268	294,297
922-Minor Material Load	179,781	0	0	0	0	0	0	0	0	0	0	0	0	179,781
925-E and S Loads	1,267,976	9,836	21,012	18,796	11,672	14,995	5,069	5,165	7,268	2,163	10,033	23,576	32,006	1,429,567
926-A and G Loads	495,504	3,056	6,528	5,839	3,626	4,658	1,575	1,605	2,258	672	3,117	7,324	9,943	545,704
928-AFUDC Debt Reg	172,973	795	170	428	486	531	564	455	482	499	515	694	997	179,589
929-AFUDC - Equity Regular	123,396	716	153	386	438	479	508	410	435	450	464	626	899	129,359
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	9,659,643	62,479	130,561	117,314	73,268	93,953	32,488	32,882	45,969	14,356	63,166	147,451	200,274	10,673,804
825-Clearings	-9,325,911	-336,314	-24,950	-73,119	-66,164	-50,624	-74,379	-29,086	-23,766	-32,686	-36,486	-57,655	-275,128	-10,406,269
Clr Sum	-9,325,911	-336,314	-24,950	-73,119	-66,164	-50,624	-74,379	-29,086	-23,766	-32,686	-36,486	-57,655	-275,128	-10,406,269
Proj Net	333,732	-273,835	105,611	44,195	7,104	43,329	-41,891	3,796	22,202	-18,331	26,681	89,796	-74,854	267,535

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*Project No: 41000807 Services*

Company: 001-Electric Services  
Location: 410 Distribution

Project Information

Construction Start Date 1/1/2016 Estimated Completion Date

List Interim In-Service Dates

Generally, blanket work orders of this nature are cleared quarterly.

Project Need Justification

PNM's customer service requirements are defined within PNM's Rules and Regulations, specifically Rules 15, 16, and 18 filed with the New Mexico Public Regulatory Commission (NMPRC) pursuant to NMPRC Rule 210. This project addresses these required service obligations to customers within the service territory by connecting residential and non-residential customers' facilities to PNM's distribution system.

Project Alternatives

Outside of this regulatory requirement, there are no other alternatives. As a new residential customer service location, each project will be evaluated with the review of service location, service wire length and route as defined to maintain service voltage within regulatory requirements.

Technical Aspects

This project includes the removal and installation costs of overhead and underground conductors leading from the connection with the customer to PNM pole or distribution box. Customers located in an overhead electric distribution areas but requesting and underground service, are required to provide the service wires per PNM rules. Materials used will include three to four overhead and underground bundled wire service conductors and associated connecting or terminating parts.

Project Estimate Approach

Historical spend in for similar projects is analyzed to develop this project's estimated spend. The initial budget for this project is developed by applying escalators to the actual 12 months spend ending May 2014. Customer growth rates expected at the time of the 2015 budget development have since been revised downward. Spend for 2016 has subsequently been adjusted lower based on expected lower customer growth.

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

Cost Year 01

Project	41000807	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	2,249,260			20,000	20,000	20,000	20,000	20,000	20,000	2,369,260		
120-Overtime-General	103,626			700	700	700	700	700	700	107,826		
350-Material Issues-Major	1,380,852			5,000	5,000	5,000	5,000	5,000	5,000	1,410,852		
370-Outside Services	2,144,031			13,000	26,000	28,500	12,000	25,000	31,447	2,279,978		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	44,374			0	0	0	0	0	0	44,374		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	538			0	0	0	0	0	0	538		
610-Expenses - General	-16,509			8,609	11,193	12,343	15,172	7,469	11,539	49,816		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	-67,184			0	0	0	0	0	0	-67,184		
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	196,685			1,629	1,629	1,629	1,629	1,629	1,629	206,460		
914-Pension and Benefits Load	744,793			6,198	6,198	6,198	6,198	6,198	6,198	781,978		
915-Injuries and Damages Load	197,415			1,350	1,350	1,350	1,350	1,350	1,350	205,513		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	143,294			556	556	556	556	556	556	146,630		
922-Minor Material Load	72,346			0	0	0	0	0	0	72,346		
925-E and S Loads	1,207,158			10,450	13,333	14,008	11,479	12,459	14,405	1,283,291		
926-A and G Loads	416,101			3,936	5,233	5,536	4,399	4,840	5,715	445,759		
928-AFUDC Debt Reg	122,994			0	0	0	0	0	0	122,994		
929-AFUDC - Equity Regular	26,741			0	0	0	0	0	0	26,741		
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	8,966,513			71,427	91,191	95,820	78,482	85,200	98,538	9,487,170		
825-Clearings	-9,911,714			-290,630	0	0	-270,520	0	-251,367	-10,724,232		
Clr Sum	-9,911,714			-290,630	0	0	-270,520	0	-251,367	-10,724,232		
Proj Net	-945,201			-219,203	91,191	95,820	-192,038	85,200	-152,830	-1,237,062		

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

Cost Year 02

Project	41000807	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	2,369,260	22,978	18,506	19,560	16,056	14,707	21,910	16,972	18,830	14,998	17,534	16,544	23,187	2,591,040	
120-Overtime-General	107,826	833	671	709	582	533	794	615	683	544	636	600	841	115,867	
350-Material Issues-Major	1,410,852	7,360	5,927	6,265	5,142	4,710	7,017	5,436	6,031	4,804	5,616	5,299	7,426	1,481,885	
370-Outside Services	2,279,978	27,660	22,276	23,544	19,327	17,703	26,374	20,430	22,666	18,054	21,106	19,914	27,911	2,546,941	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	44,374	0	0	0	0	0	0	0	0	0	14	0	71	44,459	
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	538	0	0	0	0	0	0	0	0	0	0	0	0	538	
610-Expenses - General	49,816	8,119	6,539	6,911	5,673	5,196	7,741	5,997	6,653	5,299	6,195	5,845	8,193	128,177	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-67,184	-1,291	-1,040	-1,099	-902	-826	-1,231	-954	-1,058	-843	-985	-930	-1,303	-79,646	
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	206,460	1,867	1,503	1,589	1,304	1,195	1,780	1,379	1,530	1,218	1,424	1,344	1,884	224,478	
914-Pension and Benefits Load	781,978	6,498	5,233	5,531	4,540	4,159	6,196	4,800	5,325	4,241	4,958	4,678	6,557	844,697	
915-Injuries and Damages Load	205,513	1,481	1,193	1,261	1,035	948	1,412	1,094	1,214	967	1,130	1,066	1,495	219,808	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	146,630	1,273	1,025	1,084	890	815	1,214	940	1,043	831	972	917	1,285	158,919	
922-Minor Material Load	72,346	0	0	0	0	0	0	0	0	0	0	0	0	72,346	
925-E and S Loads	1,283,291	14,745	11,875	12,551	10,303	9,437	14,059	10,891	12,083	9,624	11,254	10,616	14,892	1,425,620	
926-A and G Loads	445,759	4,499	3,623	3,830	3,144	2,880	4,290	3,323	3,687	2,937	3,434	3,239	4,545	489,188	
928-AFUDC Debt Reg	122,994	0	0	0	0	0	0	0	0	0	0	0	0	122,994	
929-AFUDC - Equity Regular	26,741	0	0	0	0	0	0	0	0	0	0	0	0	26,741	
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	9,487,170	96,021	77,332	81,735	67,094	61,458	91,558	70,922	78,686	62,674	73,287	69,132	96,983	10,414,051	
825-Clearings	-10,724,232	0	0	0	-322,182	0	0	-223,938	0	0	-214,647	0	-166,115	-11,651,113	
Clr Sum	-10,724,232	0	0	0	-322,182	0	0	-223,938	0	0	-214,647	0	-166,115	-11,651,113	
Proj Net	-1,237,062	96,021	77,332	81,735	-255,088	61,458	91,558	-153,016	78,686	62,674	-141,360	69,132	-69,132	-1,237,062	

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

Cost Year 03

Project	41000807	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	2,591,040	27,418	22,082	23,339	19,158	17,549	26,144	20,251	22,468	17,896	20,922	19,740	27,667	2,855,675
120-Overtime-General	115,867	994	801	846	695	636	948	734	815	649	759	716	1,003	125,462
350-Material Issues-Major	1,481,885	8,739	7,038	7,438	6,106	5,593	8,332	6,454	7,161	5,704	6,668	6,291	8,818	1,566,228
370-Outside Services	2,546,941	32,842	26,450	27,956	22,948	21,020	31,316	24,258	26,913	21,436	25,060	23,645	33,140	2,863,927
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	44,459	0	0	0	0	0	0	0	0	0	0	0	0	44,459
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	538	0	0	0	0	0	0	0	0	0	0	0	0	538
610-Expenses - General	128,177	9,640	7,764	8,206	6,736	6,170	9,192	7,120	7,900	6,292	7,356	6,941	9,728	221,221
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-79,646	-1,533	-1,235	-1,305	-1,071	-981	-1,462	-1,132	-1,256	-1,001	-1,170	-1,104	-1,547	-94,443
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	224,478	2,228	1,794	1,896	1,556	1,426	2,124	1,645	1,825	1,454	1,700	1,604	2,248	245,977
914-Pension and Benefits Load	844,697	7,754	6,245	6,600	5,418	4,963	7,393	5,727	6,354	5,061	5,917	5,582	7,824	919,534
915-Injuries and Damages Load	219,808	1,767	1,423	1,504	1,235	1,131	1,685	1,305	1,448	1,154	1,349	1,272	1,783	236,865
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	158,919	1,512	1,218	1,287	1,056	968	1,442	1,117	1,239	987	1,154	1,088	1,526	173,510
922-Minor Material Load	72,346	0	0	0	0	0	0	0	0	0	0	0	0	72,346
925-E and S Loads	1,425,620	17,545	14,130	14,935	12,260	11,230	16,730	12,959	14,378	11,452	13,388	12,632	17,705	1,594,963
926-A and G Loads	489,188	5,351	4,310	4,555	3,739	3,425	5,103	3,953	4,385	3,493	4,083	3,853	5,400	540,838
928-AFUDC Debt Reg	122,994	0	0	0	0	0	0	0	0	0	0	0	0	122,994
929-AFUDC - Equity Regular	26,741	0	0	0	0	0	0	0	0	0	0	0	0	26,741
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	10,414,051	114,257	92,018	97,258	79,836	73,129	108,946	84,391	93,630	74,577	87,185	82,261	115,294	11,516,835
825-Clearings	-11,651,113	0	0	0	-383,369	0	0	-266,467	0	0	-255,392	0	-197,556	-12,753,897
Clr Sum	-11,651,113	0	0	0	-383,369	0	0	-266,467	0	0	-255,392	0	-197,556	-12,753,897
Proj Net	-1,237,062	114,257	92,018	97,258	-303,533	73,129	108,946	-182,076	93,630	74,577	-168,207	82,261	-82,261	-1,237,062

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***Project No: 41001307 Cable Replacement***

Company: 001-Electric Services  
Location: 410 Distribution

**Project Information**

Construction Start Date 1/1/2016 Estimated Completion Date

List Interim In-Service Dates

This project consists of multiple individual work orders which are placed in service at various times throughout the year.

Project Need Justification

This project provides for the emergent replacement of failing underground distribution cable. Emergent cable replacements address those cables which experience failures of their insulation causing multiple outages over a short period of time and/or impacting a large number of customers.54% of the distribution is built as underground construction. Underground cable has a life expectancy of 30-40 years. The risk of not replacing aging and failing cable includes more frequent and extended power outages which adversely affect reliability and customer satisfaction.

Project Alternatives

An alternative to replacing failing cable is to inject a substance to improve the integrity of insulation materials and extend the life of the cable. This technique has shortcomings as it does address potential problems with cable splices made during installation or the ends of cable where terminating equipment is installed.Cable testing is another alternative, providing predictive identification of cable failures before they occur, specifically targeting the replacement of cable segments. However, some cable may deteriorate rapidly and testing before multiple outages have occurred may not be possible.

Technical Aspects

Cable is either replaced by pulling the cable from existing conduit and replacing it with new cable or by boring/excavating in new cable using direction boring equipment. In some cases the new cable is installed along new routes to reduce the difficulty of the installation and/or future maintenance.

Project Estimate Approach

Historical emergent cable replacement costs are not readily identifiable and were estimated for budget purposes to be approximately one quarter to one third the amount of historical annual spend prior to implementing extensive cable testing and replacement.This project includes costs for outside services which includes installation of new cable by either boring or trenching. The project also includes company labor for items such as; engineering, construction coordination, switching, and cable termination. The breakdown of cost by categories is approximately as follows: outside services (59%), company labor (22%), materials (12%), and company transportation (7%). This breakdown can fluctuate depending on the site conditions and the type of cable being replaced.

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

Cost Year 01

Project	41001307	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	579,545			976	1,083	805	912	679	779	584,778		
120-Overtime-General	65,460			3	144	13	148	273	185	66,227		
350-Material Issues-Major	1,829,024			6,400	9,434	18,326	4,867	3,096	664	1,871,812		
370-Outside Services	4,876,581			13,868	27,330	20,123	27,137	13,919	24,619	5,003,577		
374-Outside Svcs Legal	5,550			0	0	0	0	0	0	5,550		
377-Outside Services-Temp Labor	15,382			0	0	0	0	0	0	15,382		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	239			0	0	0	0	0	0	239		
610-Expenses - General	0			354	241	443	377	292	315	2,022		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	-2,754			0	0	0	0	0	0	-2,754		
829-Construction Adjustment	0			0	0	0	-461	-441	-420	-1,322		
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	53,550			77	97	64	83	75	76	54,022		
914-Pension and Benefits Load	196,518			293	367	245	317	285	289	198,315		
915-Injuries and Damages Load	57,288			64	80	53	69	62	63	57,679		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	243,646			712	1,049	2,038	541	344	74	248,404		
922-Minor Material Load	123,439			0	0	0	0	0	0	123,439		
925-E and S Loads	1,164,253			4,076	7,173	7,414	6,274	3,456	4,993	1,197,639		
926-A and G Loads	503,581			1,797	3,181	3,304	2,782	1,519	2,210	518,375		
928-AFUDC Debt Reg	167,304			91	141	194	222	211	200	168,362		
929-AFUDC - Equity Regular	128,510			98	152	210	240	228	217	129,656		
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	10,007,117			28,809	50,471	53,233	43,508	24,000	34,264	10,241,403		
825-Clearings	-10,451,855			-17,532	-28,073	-36,124	-38,487	-33,851	-33,983	-10,639,905		
Clr Sum	-10,451,855			-17,532	-28,073	-36,124	-38,487	-33,851	-33,983	-10,639,905		
Proj Net	-444,738			11,277	22,398	17,109	5,021	-9,851	281	-398,502		

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

Cost Year 02

Project	41001307	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	584,778	901	598	849	955	214	2,090	1,725	855	1,878	1,187	2,383	1,786	600,198	
120-Overtime-General	66,227	663	440	624	702	157	1,537	1,269	629	1,381	873	1,753	1,314	77,568	
350-Material Issues-Major	1,871,812	8,275	5,493	7,791	8,763	1,965	19,185	15,838	7,847	17,240	10,893	21,879	16,399	2,013,380	
370-Outside Services	5,003,577	11,189	7,427	10,535	11,850	2,658	25,941	21,416	10,611	23,311	14,730	29,584	22,174	5,195,002	
374-Outside Svcs Legal	5,550	0	0	0	0	0	0	0	0	0	0	0	0	5,550	
377-Outside Services-Temp Labor	15,382	0	0	0	0	0	0	0	0	0	0	0	0	15,382	
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	239	0	0	0	0	0	0	0	0	0	0	0	0	239	
610-Expenses - General	2,022	740	491	697	784	176	1,716	1,417	702	1,542	974	1,957	1,467	14,685	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-2,754	0	0	0	0	0	0	0	0	0	0	0	0	-2,754	
829-Construction Adjustment	-1,322	-527	-527	0	0	0	0	0	0	0	0	0	0	-2,377	
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	54,022	123	81	115	130	29	284	235	116	255	161	324	243	56,120	
914-Pension and Benefits Load	198,315	427	283	402	452	101	990	817	405	889	562	1,129	846	205,618	
915-Injuries and Damages Load	57,679	97	65	92	103	23	226	186	92	203	128	257	193	59,344	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	248,404	1,432	950	1,348	1,516	340	3,319	2,740	1,358	2,983	1,885	3,785	2,837	272,896	
922-Minor Material Load	123,439	0	0	0	0	0	0	0	0	0	0	0	0	123,439	
925-E and S Loads	1,197,639	4,304	2,857	4,052	4,558	1,022	9,978	8,237	4,081	8,966	5,666	11,379	8,529	1,271,267	
926-A and G Loads	518,375	1,463	971	1,377	1,549	347	3,391	2,800	1,387	3,048	1,926	3,868	2,899	543,401	
928-AFUDC Debt Reg	168,362	226	259	318	263	295	354	456	464	578	666	793	801	173,834	
929-AFUDC - Equity Regular	129,656	297	339	416	345	387	464	598	609	759	873	1,040	1,051	136,834	
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	10,241,403	29,609	19,727	28,615	31,970	7,716	69,474	57,733	29,156	63,033	40,524	80,130	60,538	10,759,627	
825-Clearings	-10,639,905	-12,209	-1,476	-51,235	-7,560	-16,021	-24,189	-40,424	-2,066	-18,090	-11,558	-67,048	-128,045	-11,019,825	
Clr Sum	-10,639,905	-12,209	-1,476	-51,235	-7,560	-16,021	-24,189	-40,424	-2,066	-18,090	-11,558	-67,048	-128,045	-11,019,825	
Proj Net	-398,502	17,400	18,251	-22,620	24,409	-8,305	45,286	17,309	27,090	44,944	28,966	13,082	-67,507	-260,198	

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

Cost Year 03

Project	41001307	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	600,198	919	610	866	974	218	2,131	1,760	872	1,915	1,210	2,431	1,822	615,927
120-Overtime-General	77,568	676	449	637	716	161	1,568	1,294	641	1,409	890	1,788	1,340	89,136
350-Material Issues-Major	2,013,380	8,399	5,575	7,908	8,895	1,995	19,473	16,075	7,965	17,499	11,057	22,207	16,645	2,157,072
370-Outside Services	5,195,002	11,357	7,539	10,693	12,027	2,697	26,330	21,737	10,770	23,661	14,951	30,028	22,506	5,389,299
374-Outside Svcs Legal	5,550	0	0	0	0	0	0	0	0	0	0	0	0	5,550
377-Outside Services-Temp Labor	15,382	0	0	0	0	0	0	0	0	0	0	0	0	15,382
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	239	0	0	0	0	0	0	0	0	0	0	0	0	239
610-Expenses - General	14,685	751	499	707	796	178	1,742	1,438	712	1,565	989	1,986	1,489	27,538
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-2,754	0	0	0	0	0	0	0	0	0	0	0	0	-2,754
829-Construction Adjustment	-2,377	0	0	0	0	0	0	0	0	0	0	0	0	-2,377
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	56,120	125	83	118	132	30	290	239	119	261	165	331	248	58,260
914-Pension and Benefits Load	205,618	435	289	410	461	103	1,009	833	413	907	573	1,151	863	213,067
915-Injuries and Damages Load	59,344	99	66	93	105	24	230	190	94	207	131	262	197	61,041
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	272,896	1,453	965	1,368	1,539	345	3,369	2,781	1,378	3,027	1,913	3,842	2,880	297,754
922-Minor Material Load	123,439	0	0	0	0	0	0	0	0	0	0	0	0	123,439
925-E and S Loads	1,271,267	4,370	2,901	4,115	4,628	1,038	10,133	8,365	4,145	9,105	5,753	11,555	8,661	1,346,037
926-A and G Loads	543,401	1,485	986	1,398	1,573	353	3,444	2,843	1,409	3,094	1,955	3,927	2,943	568,812
928-AFUDC Debt Reg	173,834	589	582	639	466	486	521	603	584	699	780	904	894	181,581
929-AFUDC - Equity Regular	136,834	531	524	576	420	438	470	543	526	630	703	815	806	143,817
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	10,759,627	31,191	21,067	29,528	32,732	8,067	70,709	58,702	29,627	63,979	41,070	81,228	61,292	11,288,819
825-Clearings	-11,019,825	-28,981	-3,156	-97,667	-12,593	-26,032	-33,331	-51,578	-2,555	-21,376	-13,373	-75,345	-141,343	-11,527,154
Clr Sum	-11,019,825	-28,981	-3,156	-97,667	-12,593	-26,032	-33,331	-51,578	-2,555	-21,376	-13,373	-75,345	-141,343	-11,527,154
Proj Net	-260,198	2,210	17,911	-68,139	20,140	-17,965	37,379	7,124	27,072	42,603	27,697	5,882	-80,051	-238,334

***Project No: 41001707 Santa Fe Pure Project***

Company: 001-Electric Services  
Location: 410 Distribution

Project Information

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

Project Need Justification

The Automated Line Patrols (ALPS) process identified a large quantity of work needed for repairing and replacing aging overhead distribution construction components. This work is necessary to maintain reliable service and reduce hazards to the public and PNM line crews. New Mexico Public Regulation Commission (NMPRC) Rule 17.9.560, Service Standards for Electric Utilities, outlines requirements for following electrical and safety standards (National Electric Safety Code), minimizing interruption of service, and protective safety measures. Not performing this work may decrease reliability and increase hazards to PNM personnel and the public.

Project Alternatives

No alternatives are available for this project, as it is necessary to ensure system reliability and minimize hazardous risks to PNM personnel and the public. Waiting for equipment to fail and replace on a as needed basis is the only alternative, but this option would result in disruption of service and potential safety issues from equipment failure.

Technical Aspects

This project involves the like-for-like replacement of aging/obsolete or damaged equipment on distribution poles. Physical items identified for replacement include lightning arrestors, cross-arms, cut-outs, capacitors, and insulators.

Project Estimate Approach

Project work is identified through line patrols and estimates of the work are developed through the database where the information is collected. The project’s annual spend was initially established to complete the backlog of work over a five year period but has since been adjusted annually and quarterly as necessary based upon variability in other distribution line construction work and availability of line crews. The work is identified by distribution lines (feeders). Those feeders which experience higher numbers of outages and impact the greatest number of customers are given higher priority scheduling. The typical breakdown of cost by categories is as follows: company labor (13%), outside services (75%), materials (10%), and company transportation (2%).

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

Cost Year 01

Project	41001707	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	51,594			3,000	3,000	3,000	3,000	3,000	3,000	69,594		
120-Overtime-General	38,002			2,500	2,500	2,500	2,500	2,500	2,500	53,002		
350-Material Issues-Major	62,021			3,300	3,300	3,300	3,300	3,300	3,300	81,821		
370-Outside Services	302,334			160,000	160,000	160,000	160,000	160,000	160,000	1,262,334		
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			1,011	922	1,280	1,329	340	1,221	6,103		
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	6,608			433	433	433	433	433	433	9,205		
914-Pension and Benefits Load	25,086			1,647	1,647	1,647	1,647	1,647	1,647	34,966		
915-Injuries and Damages Load	6,422			359	359	359	359	359	359	8,573		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	11,513			367	367	367	367	367	367	13,714		
922-Minor Material Load	5,390			0	0	0	0	0	0	5,390		
925-E and S Loads	74,584			31,866	31,850	31,916	31,925	31,742	31,905	265,788		
926-A and G Loads	39,295			14,128	14,121	14,151	14,155	14,072	14,146	124,068		
928-AFUDC Debt Reg	342			0	0	0	0	0	0	342		
929-AFUDC - Equity Regular	515			0	0	0	0	0	0	515		
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	623,706			218,610	218,498	218,952	219,014	217,760	218,877	1,935,416		
825-Clearings	-674,575			-66,387	-105,936	-135,320	-157,080	-172,857	-184,822	-1,496,977		
Cir Sum	-674,575			-66,387	-105,936	-135,320	-157,080	-172,857	-184,822	-1,496,977		
Proj Net	-50,869			152,223	112,562	83,632	61,933	44,903	34,055	438,439		

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

Cost Year 02

Project	41001707	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	69,594	8,300	8,300	8,300	8,300	8,300	8,300	8,300	8,300	8,300	8,300	8,300	8,300	169,194
120-Overtime-General	53,002	8,800	8,800	8,800	8,800	8,800	8,800	8,800	8,800	8,800	8,800	8,800	8,800	158,602
350-Material Issues-Major	81,821	45,000	45,000	45,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	396,821
370-Outside Services	1,262,334	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	125,000	2,817,334
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	6,103	0	0	0	0	0	0	0	0	0	0	0	0	6,103
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	9,205	1,341	1,341	1,341	1,341	1,341	1,341	1,341	1,341	1,341	1,341	1,341	1,341	25,293
914-Pension and Benefits Load	34,966	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	90,965
915-Injuries and Damages Load	8,573	1,064	1,064	1,064	1,064	1,064	1,064	1,064	1,064	1,064	1,064	1,064	1,064	21,337
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	13,714	7,785	7,785	7,785	3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	68,209
922-Minor Material Load	5,390	0	0	0	0	0	0	0	0	0	0	0	0	5,390
925-E and S Loads	265,788	38,241	38,241	38,241	33,441	33,441	33,441	33,441	33,441	33,441	33,441	33,441	32,481	680,517
926-A and G Loads	124,068	12,909	12,909	12,909	11,229	11,229	11,229	11,229	11,229	11,229	11,229	11,229	10,893	263,522
928-AFUDC Debt Reg	342	0	0	0	0	0	0	0	0	0	0	0	0	342
929-AFUDC - Equity Regular	515	0	0	0	0	0	0	0	0	0	0	0	0	515
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	1,935,416	258,106	258,106	258,106	222,301	222,301	222,301	222,301	222,301	222,301	222,301	222,301	216,005	4,704,144
825-Clearings	-1,496,977	0	0	-325,087	0	0	-410,541	0	0	-474,631	0	0	-2,084,501	-4,791,737
Clr Sum	-1,496,977	0	0	-325,087	0	0	-410,541	0	0	-474,631	0	0	-2,084,501	-4,791,737
Proj Net	438,439	258,106	258,106	-66,982	222,301	222,301	-188,240	222,301	222,301	-252,331	222,301	222,301	-1,868,496	-87,593

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

Cost Year 03

Project	41001707	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	169,194	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	265,194
120-Overtime-General	158,602	83	320	839	845	1,393	2,243	1,260	1,081	637	961	571	827	169,662
350-Material Issues-Major	396,821	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	15,000	10,500	4,000	4,000	790,321
370-Outside Services	2,817,334	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	7,000	7,000	6,000	3,197,334
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	6,103	0	0	0	0	0	0	0	0	0	0	0	0	6,103
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	25,293	634	652	693	693	736	803	726	712	677	703	672	692	33,687
914-Pension and Benefits Load	90,965	2,206	2,271	2,412	2,414	2,563	2,795	2,527	2,478	2,357	2,445	2,339	2,409	120,182
915-Injuries and Damages Load	21,337	503	518	550	550	584	637	576	565	537	557	533	549	27,996
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	68,209	7,785	7,785	7,785	7,785	7,785	7,785	7,785	7,785	2,595	1,817	692	692	136,285
922-Minor Material Load	5,390	0	0	0	0	0	0	0	0	0	0	0	0	5,390
925-E and S Loads	680,517	18,514	18,578	18,719	18,720	18,869	19,100	18,833	18,785	12,904	5,792	4,438	4,316	858,085
926-A and G Loads	263,522	6,255	6,271	6,306	6,306	6,343	6,400	6,334	6,322	4,276	1,778	1,315	1,265	322,695
928-AFUDC Debt Reg	342	0	0	0	0	0	0	0	0	0	0	0	0	342
929-AFUDC - Equity Regular	515	0	0	0	0	0	0	0	0	0	0	0	0	515
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	4,704,144	128,979	129,394	130,304	130,314	131,274	132,764	131,041	130,728	86,984	39,553	29,560	28,750	5,933,790
825-Clearings	-4,791,737	0	0	-97,169	0	0	-171,465	0	0	-215,787	0	0	-745,224	-6,021,383
Clr Sum	-4,791,737	0	0	-97,169	0	0	-171,465	0	0	-215,787	0	0	-745,224	-6,021,383
Proj Net	-87,593	128,979	129,394	33,134	130,314	131,274	-38,701	131,041	130,728	-128,803	39,553	29,560	-716,475	-87,593

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***Project No: 41002115 Downtown Manhattan Feeder phase 2***

Company: 001-Electric Services  
Location: 410 Distribution

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 12/31/2017

List Interim In-Service Dates

None

Project Need Justification

During Christmas Eve of 2010, an outage cut power to all of downtown Santa Fe for over 16 hours. This project is a part of the second phase of the improvements to replace the 35-year-old equipment that caused the outage. This will allow PNM to isolate circuits from the main system and subsequently reduce the number of customers experiencing an outage due to cable faults or failed equipment.

Project Alternatives

The engineering team performed research and compared several switching and protection options. The only alternative would be to leave the existing system in place and repair underground circuits as they fail. This will take significantly more years to complete and enable more large scale outages.

Technical Aspects

Work will involve the installation of new underground switches and protection devices as well as underground conduit and cable to create looped systems. This work will create manageable circuits and segregate single phase from three phase circuits.

Project Estimate Approach

The estimated costs for this project are based on the three major cost categories for upgrading the downtown Santa Fe system: design, materials, and installation. The overall service cost is based upon both contractor estimates and recent work that PNM has performed. The contractor that provided the estimate has supported a number PNM projects over the years including projects of similar size and scope.

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

Cost Year 01

Project	41002115	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	21,043			5,000	8,000	8,000	2,000	2,000	0	46,043		
120-Overtime-General	7,898			0	0	0	0	0	0	7,898		
350-Material Issues-Major	15,232			0	0	0	88,600	70,000	0	173,832		
370-Outside Services	6,222			28,000	28,000	0	0	0	0	62,222		
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	192			0	0	0	0	0	0	192		
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	2,537			394	630	630	157	157	0	4,504		
914-Pension and Benefits Load	9,651			1,497	2,395	2,395	599	599	0	17,136		
915-Injuries and Damages Load	2,102			326	522	522	130	130	0	3,732		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	2,294			0	0	0	9,852	7,784	0	19,930		
922-Minor Material Load	1,611			0	0	0	0	0	0	1,611		
925-E and S Loads	26,247			6,515	7,316	2,136	16,925	13,484	0	72,623		
926-A and G Loads	11,754			2,746	2,995	666	7,538	5,990	0	31,689		
928-AFUDC Debt Reg	3,231			545	654	729	891	1,149	1,268	8,466		
929-AFUDC - Equity Regular	2,023			590	708	790	964	1,245	1,373	7,692		
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	112,036			45,612	51,219	15,867	127,657	102,539	2,640	457,571		
825-Clearings	0			0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0		
Proj Net	112,036			45,612	51,219	15,867	127,657	102,539	2,640	457,571		

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

Cost Year 02

Project	41002115	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	46,043	6,094	6,094	6,094	6,094	6,094	6,094	6,094	6,094	6,094	6,094	6,094	6,094	119,174
120-Overtime-General	7,898	421	421	421	421	421	421	421	421	421	421	421	421	12,954
350-Material Issues-Major	173,832	0	0	15,279	15,279	7,640	7,640	7,640	7,640	7,640	7,640	7,640	7,640	265,507
370-Outside Services	62,222	24,135	29,958	29,958	29,958	29,958	29,958	26,500	29,958	29,958	29,958	23,000	20,000	395,521
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	192	0	0	0	0	0	0	0	0	0	0	0	0	192
610-Expenses - General	0	583	583	583	583	583	583	583	583	583	583	583	583	7,000
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	4,504	511	511	511	511	511	511	511	511	511	511	511	511	10,634
914-Pension and Benefits Load	17,136	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	38,473
915-Injuries and Damages Load	3,732	405	405	405	405	405	405	405	405	405	405	405	405	8,595
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	19,930	0	0	2,643	2,643	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	35,790
922-Minor Material Load	1,611	0	0	0	0	0	0	0	0	0	0	0	0	1,611
925-E and S Loads	72,623	6,514	7,632	10,566	10,566	9,099	9,099	8,435	9,099	9,099	9,099	7,763	7,187	176,781
926-A and G Loads	31,689	2,099	2,490	3,517	3,517	3,004	3,004	2,771	3,004	3,004	3,004	2,536	2,334	65,972
928-AFUDC Debt Reg	8,466	1,528	1,658	1,826	2,024	2,209	2,381	2,549	1,846	2,016	2,187	2,347	2,492	33,531
929-AFUDC - Equity Regular	7,692	2,005	2,175	2,396	2,655	2,898	3,123	3,343	2,422	2,644	2,868	3,078	3,268	40,568
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	457,571	46,074	53,706	75,978	76,436	65,923	66,320	62,352	65,083	65,475	65,870	57,479	54,036	1,212,303
825-Clearings	0	0	0	0	0	0	0	-333,899	0	0	0	0	-985,859	-1,319,757
Clr Sum	0	0	0	0	0	0	0	-333,899	0	0	0	0	-985,859	-1,319,757
Proj Net	457,571	46,074	53,706	75,978	76,436	65,923	66,320	-271,547	65,083	65,475	65,870	57,479	-931,822	-107,454

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

Cost Year 03

Project	41002115	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	119,174	0	0	0	0	0	0	0	0	0	0	0	0	119,174
	120-Overtime-General	12,954	0	0	0	0	0	0	0	0	0	0	0	0	12,954
	350-Material Issues-Major	265,507	0	0	0	0	0	0	0	0	0	0	0	0	265,507
	370-Outside Services	395,521	0	0	0	0	0	0	0	0	0	0	0	0	395,521
	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	192	0	0	0	0	0	0	0	0	0	0	0	0	192
	610-Expenses - General	7,000	0	0	0	0	0	0	0	0	0	0	0	0	7,000
	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	10,634	0	0	0	0	0	0	0	0	0	0	0	0	10,634
	914-Pension and Benefits Load	38,473	0	0	0	0	0	0	0	0	0	0	0	0	38,473
	915-Injuries and Damages Load	8,595	0	0	0	0	0	0	0	0	0	0	0	0	8,595
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	35,790	0	0	0	0	0	0	0	0	0	0	0	0	35,790
	922-Minor Material Load	1,611	0	0	0	0	0	0	0	0	0	0	0	0	1,611
	925-E and S Loads	176,781	0	0	0	0	0	0	0	0	0	0	0	0	176,781
	926-A and G Loads	65,972	0	0	0	0	0	0	0	0	0	0	0	0	65,972
	928-AFUDC Debt Reg	33,531	0	0	0	0	0	0	0	0	0	0	0	0	33,531
	929-AFUDC - Equity Regular	40,568	0	0	0	0	0	0	0	0	0	0	0	0	40,568
	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	1,212,303	0	0	0	0	0	0	0	0	0	0	0	0	1,212,303
	825-Clearings	-1,319,757	0	0	0	0	0	0	0	0	0	0	0	0	-1,319,757
	Clr Sum	-1,319,757	0	0	0	0	0	0	0	0	0	0	0	0	-1,319,757
	Proj Net	-107,454	0	0	0	0	0	0	0	0	0	0	0	0	-107,454

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**Project No: 41002116 46kV Distribution System Improvements**

Company: 001-Electric Services  
Location: 410 Distribution

Project Information

<u>Construction Start Date</u>	12/1/2016	<u>Estimated Completion Date</u>	8/31/2017
<u>List Interim In-Service Dates</u>	N/A		

Project Need Justification

In the last ten years there have been 111,947 hours of outage effecting 67,040 customers associated with either a loss of a 46/12.47kV substation or the 46kV transmission line. This project is required to minimize the restoration time in the Santa Fe area from outages on the 46kV transmission line or at the 46kV/12.47kV substation facilities. When there is an outage on these distribution facilities, work crews are dispatched to manually switch distribution feeders fed from the 46kV substations to the distribution feeders served from 115kV substations. This manual effort prolongs the duration of outage time experienced by customers. The project proposes to replace six manually operated padmount switchgears with Supervisory Controlled and Data Acquisition (SCADA) padmounted switchgear and three manually operated Gang Operated Load Break (GOLB) overhead switches with SCADA controlled overhead switches (also known as ScadaMate switches), and one manually operated subsurface modular style switchgear with a SCADA controlled subsurface modular style switchgear. These SCADA controlled switches can easily be remotely operated by the Distribution Operations Center (DOC) to restore electric service when a 46kV transmission line or a 46kV/12.47kV substation outage occurs. In addition to reliability benefits, the project will enhance safety conditions for PNM work crews by eliminating the need to manually perform switching operations under heavy load conditions. The restoration time is expected to decrease approximately from 300 minutes to 30 minutes.

Project Alternatives

An alternative considered was to permanently move load from the 46kV substations to the 115KV substations. This alternative was dismissed because this would result in two of the 115kV substations transformers exceeding their normal ratings. Furthermore, in the event of the loss of the 115kV Line, the switches identified would be used to send the load back to the 46kV Line. This would prolong the restore times as identified in the accepted alternative. The risk associated with permanently moving load would lead to the overload of two substation transformers and continued long restoration times for customers in the Santa Fe area.

Technical Aspects

The project proposes to replace six manually operated padmount switchgear with SCADA controlled padmount switchgear and three manually operated GOLB overhead switches with SCADA controlled overhead switches (ScadaMate switches) and one manually operated subsurface modular style switchgear with a CADA controlled subsurface modular style switchgear.

#### Project Estimate Approach

This project was estimated using the standard procedures of Distribution Engineering. Basic materials are estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment such as ScadaMate switches, SCADA controlled padmount switchgear and the SCADA controlled subsurface modular style switchgear, PNM contacted our alliance vendors at S&C and Thomas & Betts to request information regarding the costs and schedules of these major items. Labor and contractor estimates were created from past projects that are similar in nature. Specifically, this project the Santa Fe downtown renovation was referenced. All the overhead costs are standard and calculated using the approved corporate software.

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

Cost Year 01

Project	41002116	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	20,000	0	0	0	0	20,000		
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	-169	-169	-169	-508		
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	1,574	0	0	0	0	1,574		
914-Pension and Benefits Load	0			0	5,988	0	0	0	0	5,988		
915-Injuries and Damages Load	0			0	1,304	0	0	0	0	1,304		
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	5,340	0	0	0	0	5,340		
926-A and G Loads	0			0	1,664	0	0	0	0	1,664		
928-AFUDC Debt Reg	0			0	40	81	81	81	81	365		
929-AFUDC - Equity Regular	0			0	44	88	88	88	88	395		
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	35,954	169	0	0	0	36,123		
825-Clearings	0			0	0	0	0	0	-36,123	-36,123		
Clr Sum	0			0	0	0	0	0	-36,123	-36,123		
Proj Net	0			0	35,954	169	0	0	-36,123	0		

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

Cost Year 02

Project	41002116	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	20,000	28,125	28,125	28,125	28,125	28,125	28,125	28,125	28,125	0	0	0	0	245,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	240,000	0	0	0	0	0	0	0	0	0	0	0	240,000
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	-508	-217	-217	0	0	0	0	0	0	0	0	0	0	-942
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	1,574	2,205	2,205	2,205	2,205	2,205	2,205	2,205	2,205	0	0	0	0	19,214
914-Pension and Benefits Load	5,988	7,675	7,675	7,675	7,675	7,675	7,675	7,675	7,675	0	0	0	0	67,391
915-Injuries and Damages Load	1,304	1,749	1,749	1,749	1,749	1,749	1,749	1,749	1,749	0	0	0	0	15,299
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	41,520	0	0	0	0	0	0	0	0	0	0	0	41,520
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	53,713	7,633	7,633	7,633	7,633	7,633	7,633	7,633	0	0	0	0	112,483
926-A and G Loads	1,664	18,018	1,890	1,890	1,890	1,890	1,890	1,890	1,890	0	0	0	0	32,912
928-AFUDC Debt Reg	365	512	1,091	1,226	1,361	1,498	1,636	1,774	1,913	0	0	0	0	11,376
929-AFUDC - Equity Regular	395	671	1,431	1,608	1,786	1,965	2,145	2,327	2,509	0	0	0	0	14,838
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	36,123	393,972	51,582	52,111	52,425	52,741	53,059	53,378	53,700	0	0	0	0	799,091
825-Clearings	-36,123	0	0	0	0	0	0	0	-762,968	0	0	0	0	-799,091
Clr Sum	-36,123	0	0	0	0	0	0	0	-762,968	0	0	0	0	-799,091
Proj Net	0	393,972	51,582	52,111	52,425	52,741	53,059	53,378	-709,268	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	41002116	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	245,000	0	0	0	0	0	0	0	0	0	0	0	0	245,000
	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	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	-942	0	0	0	0	0	0	0	0	0	0	0	0	-942
	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	19,214	0	0	0	0	0	0	0	0	0	0	0	0	19,214
	914-Pension and Benefits Load	67,391	0	0	0	0	0	0	0	0	0	0	0	0	67,391
	915-Injuries and Damages Load	15,299	0	0	0	0	0	0	0	0	0	0	0	0	15,299
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	41,520	0	0	0	0	0	0	0	0	0	0	0	0	41,520
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	112,483	0	0	0	0	0	0	0	0	0	0	0	0	112,483
	926-A and G Loads	32,912	0	0	0	0	0	0	0	0	0	0	0	0	32,912
	928-AFUDC Debt Reg	11,376	0	0	0	0	0	0	0	0	0	0	0	0	11,376
	929-AFUDC - Equity Regular	14,838	0	0	0	0	0	0	0	0	0	0	0	0	14,838
	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	799,091	0	0	0	0	0	0	0	0	0	0	0	0	799,091
	825-Clearings	-799,091	0	0	0	0	0	0	0	0	0	0	0	0	-799,091
	Clr Sum	-799,091	0	0	0	0	0	0	0	0	0	0	0	0	-799,091
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Project No: 50000607 Distr. Remove & Replace**

Company: 001-Electric Services  
Location: 500 Distribution

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date

List Interim In-Service Dates

This project consists of individual work orders placed in service at various times throughout the year as determined by governmental road widening schedules and the occurrence of significant storms.

Project Need Justification

This project is primarily to replace storm damaged equipment within the service area and other repairs as a result of government-led roadway improvement projects. The work is required under franchise agreements or as necessary for maintaining system integrity, restoring power after storms, and for the safe and reliable operation of the distribution facilities.

Project Alternatives

These projects are a result of government franchise agreements and/or to repair storm-damaged facilities. Therefore, limits project alternatives available. In most cases, work will involve the replacement of like for like equipment. Other configurations will be evaluated on a case-by-case basis taking into account the best options available.

Technical Aspects

This project includes relocation of electric distribution facilities in road rights-of-way and also the removal and replacement of existing electric distribution facilities that have been damaged during storms or deteriorated through normal aging. Work will include the design, installation, and removal of wire, poles, pole hardware (including insulators, cross arms, cut outs, anchor assemblies, overhead and underground switches, protection equipment, underground cable and conduits) and other equipment.

Project Estimate Approach

Because a significant portion of the activities for this project include replacement of storm damaged facilities, the work required is largely unknown at the time of forecast. Historical spend in this funding project is analyzed to develop this project’s estimated spend. The initial budget for this project was developed by applying escalation factors to the most recent 12-month actual spend (July 2015-June 2016) by the second quarter reforecast (Q2RF) expected customer growth provided by PNM Strategic Marketing & Product Management expressed as the percentage change in number of new customers year-over-year. Additionally, labor and non-labor cost components are escalated using annual expected cost increase percentages as supplied by PNM budget. The typical breakdown of cost by categories is as follows: outside services (43%), company labor (19%), materials (31%), and company transportation (7%). This breakdown can fluctuate depending on the nature of the removals and replacement facilities including whether they are overhead construction or underground facilities

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

Cost Year 01

Project	50000607	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	620,312		16,071	0	0	7,249	7,207	0	650,839		
	120-Overtime-General	462,348		8,602	7,799	2,139	7,133	7,172	4,855	500,048		
	350-Material Issues-Major	614,322		7,936	7,082	1,947	6,335	6,423	4,372	648,417		
	370-Outside Services	451,344		8,615	7,503	2,058	6,560	6,658	4,545	487,283		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	3,902		151	60	69	63	230	201	4,674		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	692		0	0	0	0	0	0	692		
	610-Expenses - General	0		8,122	2,857	2,255	2,935	7,992	4,256	28,417		
	805-Land and Land Rights	29,172		0	0	0	0	0	0	29,172		
	807-Non Refundable Contribution	-439,400		-13,753	-7,767	-2,594	-6,403	-9,936	-13,317	-493,171		
	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	85,906		1,942	614	168	1,132	1,132	382	91,275		
	914-Pension and Benefits Load	323,129		7,387	2,335	640	4,306	4,305	1,454	343,556		
	915-Injuries and Damages Load	86,929		1,609	508	139	938	937	317	91,377		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	67,255		882	788	217	704	714	486	71,047		
	922-Minor Material Load	37,655		0	0	0	0	0	0	37,655		
	925-E and S Loads	448,637		11,180	5,320	1,742	6,780	7,780	3,770	485,211		
	926-A and G Loads	161,008		4,118	2,105	705	2,519	2,969	1,517	174,940		
	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	2,953,213		62,862	29,203	9,485	40,251	43,582	12,836	3,151,432		
	825-Clearings	-3,397,782		-69,717	-56,753	-41,627	-41,187	-41,953	-32,636	-3,681,654		
	Cir Sum	-3,397,782		-69,717	-56,753	-41,627	-41,187	-41,953	-32,636	-3,681,654		
	Proj Net	-444,569		-6,855	-27,549	-32,142	-936	1,629	-19,800	-530,222		

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

Cost Year 02

Project	50000607	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	650,839	5,519	4,265	6,290	3,143	3,772	3,355	4,648	4,478	3,085	2,113	4,130	3,701	699,340
120-Overtime-General	500,048	4,196	3,243	4,782	2,390	2,868	2,551	3,534	3,405	2,346	1,607	3,141	2,814	536,925
350-Material Issues-Major	648,417	11,864	9,169	13,521	6,757	8,108	7,212	9,993	9,627	6,633	4,543	8,879	7,956	752,679
370-Outside Services	487,283	8,227	6,358	9,376	4,686	5,623	5,001	6,930	6,676	4,600	3,150	6,157	5,517	559,584
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	4,674	9	7	11	5	6	6	8	7	5	4	7	6	4,756
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	692	0	0	0	0	0	0	0	0	0	0	0	0	692
610-Expenses - General	28,417	4,109	3,176	4,683	2,340	2,808	2,498	3,461	3,334	2,297	1,573	3,075	2,756	64,529
805-Land and Land Rights	29,172	0	0	0	0	0	0	0	0	0	0	0	25,905	55,077
807-Non Refundable Contribution	-493,171	-5,886	-4,549	-6,708	-3,352	-4,023	-3,578	-4,958	-4,776	-3,291	-2,254	-4,405	-3,947	-544,899
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	91,275	762	589	868	434	521	463	642	618	426	292	570	511	97,969
914-Pension and Benefits Load	343,556	2,651	2,049	3,022	1,510	1,812	1,612	2,233	2,151	1,482	1,015	1,984	1,778	366,855
915-Injuries and Damages Load	91,377	604	467	689	344	413	367	509	490	338	231	452	405	96,688
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	71,047	2,052	1,586	2,339	1,169	1,403	1,248	1,729	1,666	1,147	786	1,536	1,376	89,084
922-Minor Material Load	37,655	0	0	0	0	0	0	0	0	0	0	0	0	37,655
925-E and S Loads	485,211	7,285	5,630	8,302	4,149	4,979	4,429	6,136	5,911	4,073	2,789	5,452	4,885	549,231
926-A and G Loads	174,940	2,280	1,762	2,598	1,298	1,558	1,386	1,920	1,850	1,275	873	1,706	3,270	196,715
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	3,151,432	43,672	33,752	49,773	24,873	29,848	26,549	36,784	35,439	24,416	16,722	32,685	56,933	3,562,879
825-Clearings	-3,681,654	-36,167	-35,394	-26,460	-10,448	-16,425	-25,740	-14,343	-17,733	-62,946	-29,306	-21,225	-72,416	-4,050,257
Clr Sum	-3,681,654	-36,167	-35,394	-26,460	-10,448	-16,425	-25,740	-14,343	-17,733	-62,946	-29,306	-21,225	-72,416	-4,050,257
Proj Net	-530,222	7,504	-1,642	23,314	14,425	13,423	809	22,442	17,706	-38,530	-12,584	11,460	-15,483	-487,378

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

Cost Year 03

Project	50000607	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	699,340	6,585	5,089	7,505	3,750	4,501	4,003	5,547	5,344	3,682	2,521	4,928	4,416	757,211
120-Overtime-General	536,925	5,007	3,870	5,707	2,852	3,422	3,044	4,217	4,063	2,799	1,917	3,747	3,358	580,928
350-Material Issues-Major	752,679	14,087	10,887	16,055	8,023	9,628	8,564	11,865	11,431	7,876	5,394	10,543	9,447	876,476
370-Outside Services	559,584	9,769	7,550	11,133	5,564	6,676	5,939	8,228	7,927	5,461	3,740	7,311	6,551	645,434
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	4,756	11	8	13	6	8	7	9	9	6	4	8	7	4,852
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	692	0	0	0	0	0	0	0	0	0	0	0	0	692
610-Expenses - General	64,529	4,879	3,771	5,561	2,779	3,335	2,966	4,110	3,959	2,728	1,868	3,652	3,272	107,407
805-Land and Land Rights	55,077	0	0	0	0	0	0	0	0	0	0	0	27,026	82,103
807-Non Refundable Contribution	-544,899	-6,989	-5,401	-7,965	-3,980	-4,777	-4,249	-5,887	-5,671	-3,907	-2,676	-5,231	-4,687	-606,320
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	97,969	909	702	1,036	518	621	552	765	737	508	348	680	609	105,956
914-Pension and Benefits Load	366,855	3,163	2,445	3,605	1,802	2,162	1,923	2,665	2,567	1,769	1,211	2,368	2,122	394,657
915-Injuries and Damages Load	96,688	721	557	822	411	493	438	607	585	403	276	540	484	103,024
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	89,084	2,437	1,883	2,777	1,388	1,666	1,481	2,053	1,978	1,362	933	1,824	1,634	110,501
922-Minor Material Load	37,655	0	0	0	0	0	0	0	0	0	0	0	0	37,655
925-E and S Loads	549,231	8,665	6,697	9,876	4,935	5,922	5,268	7,298	7,032	4,845	3,318	6,485	5,811	625,382
926-A and G Loads	196,715	2,711	2,095	3,089	1,544	1,853	1,648	2,283	2,200	1,515	1,038	2,029	3,634	222,354
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	3,562,879	51,954	40,153	59,213	29,590	35,509	31,584	43,761	42,160	29,047	19,893	38,884	63,684	4,048,312
825-Clearings	-4,050,257	-26,847	-34,843	-42,727	-15,976	-23,950	-36,333	-19,531	-23,564	-82,527	-38,014	-27,031	-88,763	-4,510,363
Clr Sum	-4,050,257	-26,847	-34,843	-42,727	-15,976	-23,950	-36,333	-19,531	-23,564	-82,527	-38,014	-27,031	-88,763	-4,510,363
Proj Net	-487,378	25,107	5,310	16,487	13,614	11,559	-4,749	24,230	18,597	-53,480	-18,121	11,853	-25,080	-462,051

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***Project No: 50000707 Distr. System Improvements***

Company: 001-Electric Services  
Location: 500 Distribution

Project Information

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

This project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

Annual load analysis and modeling of the distribution system identified possible operational issues caused by normal load growth and obsolete/problematic equipment, which will necessitate improvements and line extensions to serve new customers. These improvements are necessary to meet the standards for service as required of New Mexico Administrative Code (NMAC) Rule 17.9.560.15.

Project Alternatives

Alternatives are evaluated on a case-by case basis. This usually involves analysis by PNM’s Distribution Planning or Distribution Protection departments using simulation models of the distribution system. With these models, engineers will evaluate different equipment or configuration alternatives to arrive at the best solutions for maintaining adequate voltage to all customers, enhance reliability and ensure the most cost effective and practical solution.

Technical Aspects

This project provides for numerous small distribution facility improvements including the design and installation of conduit systems, cable, wire, poles, overhead and underground switches, voltage and power factor supporting devices, and protection equipment. Further system improvements include new capacitor banks, voltage regulators, protective devices, upgraded wires and supervisory control and data acquisitions (SCADA) devices.

Project Estimate Approach

Historical spend is used as a guide to estimate future funding for the project. The initial budget for this project was developed by applying labor and non-labor cost escalation factors to the most recent 12-month actual spend (July 2015-June 2016). The typical breakdown of cost by categories is as follows: company labor 11%, outside services 66%, materials 20%, and company transportation 3%. This breakdown can fluctuate depending on the nature of the system improvement work.

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

Cost Year 01

Project	50000707	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	361,945		1,731	9,062	2,001	7,091	3,670	12,749	398,248		
	120-Overtime-General	250,401		2,898	15,958	4,326	12,550	6,021	21,554	313,708		
	350-Material Issues-Major	511,135		455	2,691	712	2,133	916	3,465	521,507		
	370-Outside Services	1,022,683		4,356	1,667	640	105	1,856	15,956	1,047,264		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	774		0	0	0	0	0	0	774		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	3,294		0	0	0	0	0	0	3,294		
	610-Expenses - General	0		2,196	937	305	20	2,091	22,638	28,186		
	805-Land and Land Rights	0		0	0	0	0	0	0	0		
	807-Non Refundable Contribution	-61,432		-391	-264	-61	-155	-136	-540	-62,980		
	829-Construction Adjustment	0		0	0	0	-256	-253	-253	-761		
	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	46,331		364	1,969	498	1,546	763	2,700	54,170		
	914-Pension and Benefits Load	172,436		1,386	7,491	1,894	5,881	2,901	10,270	202,260		
	915-Injuries and Damages Load	46,772		302	1,631	413	1,281	632	2,237	53,266		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	62,168		51	299	79	237	102	385	63,321		
	922-Minor Material Load	35,094		0	0	0	0	0	0	35,094		
	925-E and S Loads	366,664		2,532	7,660	1,996	5,662	3,487	16,940	404,942		
	926-A and G Loads	175,678		968	2,522	664	1,822	1,211	6,353	189,219		
	928-AFUDC Debt Reg	25,518		113	134	125	123	121	213	26,347		
	929-AFUDC - Equity Regular	26,457		122	145	135	133	131	231	27,355		
	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	3,045,919		17,083	51,902	13,727	38,172	23,512	114,897	3,305,213		
	825-Clearings	-3,284,656		-25,272	-36,723	-26,835	-31,710	-28,185	-65,471	-3,498,852		
	Clr Sum	-3,284,656		-25,272	-36,723	-26,835	-31,710	-28,185	-65,471	-3,498,852		
	Proj Net	-238,737		-8,189	15,179	-13,107	6,462	-4,672	49,426	-193,639		

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

Cost Year 02

Project	50000707	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	398,248	9,920	4,501	6,462	4,590	6,947	6,520	7,760	10,545	2,533	4,077	10,947	11,737	484,787	
120-Overtime-General	313,708	2,080	944	1,355	962	1,457	1,367	1,627	2,211	531	855	2,295	2,461	331,853	
350-Material Issues-Major	521,507	16,505	7,489	10,750	7,636	11,557	10,848	12,911	17,544	4,213	6,783	18,213	19,527	665,483	
370-Outside Services	1,047,264	30,207	13,705	19,675	13,976	21,152	19,854	23,629	32,109	7,711	12,413	33,333	35,737	1,310,766	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	774	22	10	15	10	16	15	18	24	6	9	25	27	970	
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	3,294	0	0	0	0	0	0	0	0	0	0	0	0	3,294	
610-Expenses - General	28,186	2,810	1,275	1,830	1,300	1,967	1,847	2,198	2,987	717	1,155	3,101	3,324	52,696	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-62,980	-2,983	-1,353	-1,943	-1,380	-2,089	-1,961	-2,333	-3,171	-761	-1,226	-3,292	-3,529	-89,000	
829-Construction Adjustment	-761	-324	-324	0	0	0	0	0	0	0	0	0	0	-1,409	
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	54,170	941	427	613	435	659	618	736	1,000	240	387	1,038	1,113	62,377	
914-Pension and Benefits Load	202,260	3,275	1,486	2,133	1,515	2,293	2,153	2,562	3,481	836	1,346	3,614	3,874	230,828	
915-Injuries and Damages Load	53,266	746	339	486	345	523	491	584	793	191	307	824	883	59,777	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	63,321	2,855	1,296	1,860	1,321	1,999	1,877	2,234	3,035	729	1,173	3,151	3,378	88,229	
922-Minor Material Load	35,094	0	0	0	0	0	0	0	0	0	0	0	0	35,094	
925-E and S Loads	404,942	12,769	5,794	8,317	5,908	8,942	8,393	9,989	13,573	3,260	5,247	14,091	15,107	516,332	
926-A and G Loads	189,219	4,136	1,876	2,694	1,913	2,896	2,718	3,235	4,396	1,056	1,700	4,564	4,893	225,297	
928-AFUDC Debt Reg	26,347	334	302	272	352	371	483	562	689	764	724	744	909	32,854	
929-AFUDC - Equity Regular	27,355	439	396	357	461	487	633	738	904	1,002	949	976	1,192	35,890	
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	3,305,213	83,733	38,162	54,874	39,346	59,177	55,856	66,450	90,122	23,028	35,898	93,624	100,633	4,046,116	
825-Clearings	-3,498,852	-73,324	-58,204	-16,334	-41,734	-14,728	-30,395	-29,503	-27,709	-45,083	-56,841	-33,804	-156,064	-4,082,575	
Clr Sum	-3,498,852	-73,324	-58,204	-16,334	-41,734	-14,728	-30,395	-29,503	-27,709	-45,083	-56,841	-33,804	-156,064	-4,082,575	
Proj Net	-193,639	10,409	-20,042	38,540	-2,388	44,449	25,461	36,947	62,414	-22,055	-20,943	59,820	-55,431	-36,458	

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

Cost Year 03

Project	50000707	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	484,787	10,119	4,591	6,591	4,682	7,086	6,651	7,915	10,756	2,583	4,158	11,166	11,971	573,056
120-Overtime-General	331,853	2,122	963	1,382	982	1,486	1,395	1,660	2,255	542	872	2,341	2,510	350,361
350-Material Issues-Major	665,483	16,752	7,601	10,911	7,751	11,731	11,011	13,105	17,807	4,277	6,884	18,486	19,819	811,619
370-Outside Services	1,310,766	30,660	13,911	19,970	14,185	21,469	20,152	23,984	32,591	7,827	12,600	33,833	36,273	1,578,222
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	970	23	10	15	11	16	15	18	24	6	9	25	27	1,169
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	3,294	0	0	0	0	0	0	0	0	0	0	0	0	3,294
610-Expenses - General	52,696	2,852	1,294	1,858	1,319	1,997	1,874	2,231	3,031	728	1,172	3,147	3,374	77,573
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-89,000	-3,028	-1,374	-1,972	-1,401	-2,120	-1,990	-2,368	-3,218	-773	-1,244	-3,341	-3,582	-115,411
829-Construction Adjustment	-1,409	0	0	0	0	0	0	0	0	0	0	0	0	-1,409
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	62,377	960	435	625	444	672	631	751	1,020	245	394	1,059	1,135	70,749
914-Pension and Benefits Load	230,828	3,340	1,516	2,176	1,545	2,339	2,196	2,613	3,551	853	1,373	3,686	3,952	259,967
915-Injuries and Damages Load	59,777	761	345	496	352	533	500	596	809	194	313	840	901	66,419
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	88,229	2,898	1,315	1,888	1,341	2,029	1,905	2,267	3,081	740	1,191	3,198	3,429	113,511
922-Minor Material Load	35,094	0	0	0	0	0	0	0	0	0	0	0	0	35,094
925-E and S Loads	516,332	12,977	5,888	8,452	6,004	9,087	8,530	10,151	13,794	3,313	5,333	14,320	15,353	629,534
926-A and G Loads	225,297	4,202	1,906	2,737	1,944	2,942	2,762	3,287	4,466	1,073	1,727	4,637	4,971	261,951
928-AFUDC Debt Reg	32,854	748	829	821	838	730	814	851	948	1,002	928	913	1,064	43,340
929-AFUDC - Equity Regular	35,890	674	747	741	755	658	734	767	854	904	837	823	960	45,343
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	4,046,116	86,060	39,979	56,690	40,752	60,655	57,179	67,826	91,771	23,513	36,547	95,134	102,158	4,804,380
825-Clearings	-4,082,575	-31,701	-51,301	-42,522	-92,040	-26,516	-48,551	-42,597	-36,582	-58,504	-71,838	-40,370	-179,346	-4,804,443
Clr Sum	-4,082,575	-31,701	-51,301	-42,522	-92,040	-26,516	-48,551	-42,597	-36,582	-58,504	-71,838	-40,370	-179,346	-4,804,443
Proj Net	-36,458	54,359	-11,322	14,169	-51,288	34,139	8,629	25,229	55,188	-34,991	-35,291	54,764	-77,188	-62

*Project No: 50000807 Services*

Company: 001-Electric Services  
Location: 500 Distribution

Project Information

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

Generally, blanket work orders of this nature are cleared quarterly.

Project Need Justification

This project provides for the electrical connection of residential and non-residential customers’ facilities to PNM’s distribution system primarily within Valencia County. The project includes the cost of PNM labor, outside services (contractors), and PNM transportation costs. PNM is obligated to serve customers within its service territory. PNM's and the customer’s service cost responsibilities are defined within PNM’s Rules and Regulations, specifically Rules 15, 16, & 18 filed with the New Mexico Public Regulatory Commission (NMPRC) pursuant to NMPRC Rule 210.

Project Alternatives

This project is required to provide service to new customers and existing customers upgrading their service. Customers may be served with either an overhead or underground service depending on the distribution system configuration from and the customer's preference. For each service to a new residential or non-residential customer served with an overhead service, the point of service location, service wire size and length, and route are defined to maintain service voltage within regulatory requirements. Non-residential customers located in underground electric distribution areas, or residential or non-residential customers located in overhead electric distribution areas but requesting and underground service, are required to provide the service wires per PNM rules.

Technical Aspects

This project includes the installation, connection, and in the case of service retirement, removal costs of overhead and underground conductors leading from the point where PNM wires leave the last pole or distribution box to the point of connection with the residential or non-residential customer. Only costs of labor, outside services, and transportation are included in the project. Service material costs associated with the services installed within Valencia County are not included within this project but instead captured in the Albuquerque services blanket, 10000807, due to PNM’s centralized metro area warehouse.

Project Estimate Approach

Since the number, length, and types of services to be installed in a given year is unknown at the time of budget preparation, the budget for this blanket is estimated by applying escalation factors to historical spend. The initial budget for this project was developed by applying customer growth and cost escalation factors to the most recent 12-month actual spend (July 2015-June 2016). The customer growth escalation factor is derived from the second quarter

reforecast (Q2RF) expected customer growth provided by PNM Strategic Marketing and Product Management expressed as the percentage change in number of new customers year-over-year. Additionally, labor and non-labor cost components are escalated using annual expected cost increase percentages as supplied by PNM Budget. The typical breakdown of cost by categories is as follows: company labor (41%), outside services (47%), and company transportation (11%). This breakdown can vary over time depending on the number, type, and locations of service installations.



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

Cost Year 01

Project	50000807	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	744,215			12,376	15,339	8,883	7,115	4,147	5,747	797,823		
120-Overtime-General	81,465			1,796	2,196	1,286	1,052	607	832	89,235		
350-Material Issues-Major	131,370			20	134	30	2	9	14	131,578		
370-Outside Services	469,997			1,200	5,521	1,414	133	798	1,294	480,358		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	79,293			0	0	0	0	0	0	79,293		
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	-9,078			4,212	6,525	2,638	1,580	944	1,198	8,020		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	-30,845			0	0	0	0	0	0	-30,845		
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	67,799			1,115	1,380	800	643	374	518	72,630		
914-Pension and Benefits Load	256,150			4,243	5,250	3,045	2,445	1,423	1,970	274,527		
915-Injuries and Damages Load	66,130			924	1,143	663	532	310	429	70,132		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	19,404			2	15	3	0	1	2	19,427		
922-Minor Material Load	5,897			0	0	0	0	0	0	5,897		
925-E and S Loads	321,012			4,789	6,936	3,471	2,498	1,593	2,220	342,519		
926-A and G Loads	109,040			1,631	2,472	1,186	822	541	756	116,448		
928-AFUDC Debt Reg	32,889			0	0	0	0	0	0	32,889		
929-AFUDC - Equity Regular	6,690			0	0	0	0	0	0	6,690		
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	2,351,429			32,310	46,912	23,420	16,823	10,748	14,979	2,496,620		
825-Clearings	-2,609,217			-83,924	0	0	-86,508	0	-47,354	-2,827,003		
Clr Sum	-2,609,217			-83,924	0	0	-86,508	0	-47,354	-2,827,003		
Proj Net	-257,788			-51,614	46,912	23,420	-69,685	10,748	-32,375	-330,383		

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

Cost Year 02

Project	50000807	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	797,823	10,096	9,529	9,543	8,792	10,435	10,233	9,298	14,832	10,221	9,203	11,500	8,772	920,277
120-Overtime-General	89,235	1,223	1,155	1,156	1,066	1,264	1,240	1,126	1,797	1,238	1,115	1,393	1,063	104,072
350-Material Issues-Major	131,578	39	37	37	33	40	39	35	57	39	35	43	33	132,044
370-Outside Services	480,358	1,313	1,239	1,241	1,143	1,357	1,330	1,209	1,929	1,329	1,197	1,496	1,141	496,284
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	79,293	0	0	17	17	17	17	17	17	17	17	17	17	79,464
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	8,020	3,665	3,458	3,464	3,191	3,787	3,714	3,375	5,383	3,709	3,341	4,174	3,185	52,467
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-30,845	0	0	0	0	0	0	0	0	0	0	0	0	-30,845
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	72,630	887	838	839	773	917	899	817	1,304	898	809	1,011	771	83,393
914-Pension and Benefits Load	274,527	3,089	2,915	2,920	2,690	3,193	3,131	2,845	4,538	3,127	2,816	3,519	2,684	311,993
915-Injuries and Damages Load	70,132	704	665	665	613	728	714	648	1,034	713	642	802	612	78,671
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	19,427	7	6	6	6	7	7	6	10	7	6	8	6	19,508
922-Minor Material Load	5,897	0	0	0	0	0	0	0	0	0	0	0	0	5,897
925-E and S Loads	342,519	4,035	3,808	3,817	3,517	4,174	4,093	3,719	5,931	4,088	3,682	4,599	3,509	391,493
926-A and G Loads	116,448	1,098	1,036	1,039	957	1,136	1,114	1,012	1,614	1,112	1,002	1,252	955	129,774
928-AFUDC Debt Reg	32,889	0	0	0	0	0	0	0	0	0	0	0	0	32,889
929-AFUDC - Equity Regular	6,690	0	0	0	0	0	0	0	0	0	0	0	0	6,690
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	2,496,620	26,156	24,686	24,745	22,798	27,053	26,531	24,109	38,447	26,499	23,865	29,813	22,749	2,814,072
825-Clearings	-2,827,003	-12,555	-3,446	-5,959	-37,448	-16,508	-21,295	-16,562	0	-7,635	-99,002	-5,943	-74,700	-3,128,057
Clr Sum	-2,827,003	-12,555	-3,446	-5,959	-37,448	-16,508	-21,295	-16,562	0	-7,635	-99,002	-5,943	-74,700	-3,128,057
Proj Net	-330,383	13,601	21,240	18,787	-14,650	10,546	5,236	7,547	38,447	18,864	-75,138	23,870	-51,952	-313,985

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

Cost Year 03

Project	50000807	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	920,277	10,558	9,964	9,980	9,193	10,912	10,701	9,724	15,511	10,688	9,625	12,026	9,174	1,048,333	
120-Overtime-General	104,072	1,279	1,207	1,209	1,114	1,322	1,297	1,178	1,880	1,295	1,166	1,457	1,112	119,588	
350-Material Issues-Major	132,044	40	38	38	35	41	41	37	59	41	37	46	35	132,532	
370-Outside Services	496,284	1,366	1,290	1,291	1,190	1,412	1,385	1,258	2,007	1,383	1,246	1,556	1,187	512,855	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	79,464	15	15	15	15	15	15	15	15	15	15	15	15	79,644	
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	52,467	3,814	3,599	3,605	3,321	3,941	3,865	3,512	5,602	3,861	3,476	4,344	3,314	98,721	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	-30,845	0	0	0	0	0	0	0	0	0	0	0	0	-30,843	
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	83,393	928	876	877	808	959	941	855	1,363	939	846	1,057	806	94,649	
914-Pension and Benefits Load	311,993	3,230	3,049	3,053	2,813	3,339	3,274	2,975	4,746	3,270	2,945	3,680	2,807	351,174	
915-Injuries and Damages Load	78,671	736	695	696	641	761	746	678	1,082	745	671	839	640	87,601	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	19,508	7	7	7	6	7	7	6	10	7	6	8	6	19,592	
922-Minor Material Load	5,897	0	0	0	0	0	0	0	0	0	0	0	0	5,897	
925-E and S Loads	391,493	4,218	3,981	3,987	3,673	4,359	4,275	3,885	6,195	4,270	3,845	4,804	3,665	442,648	
926-A and G Loads	129,774	1,147	1,083	1,084	999	1,186	1,163	1,057	1,685	1,161	1,046	1,307	997	143,689	
928-AFUDC Debt Reg	32,889	0	0	0	0	0	0	0	0	0	0	0	0	32,889	
929-AFUDC - Equity Regular	6,690	0	0	0	0	0	0	0	0	0	0	0	0	6,690	
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	2,814,072	27,338	25,802	25,843	23,808	28,253	27,710	25,180	40,155	27,676	24,925	31,138	23,759	3,145,660	
825-Clearings	-3,128,057	-20,993	-4,369	-7,002	-42,544	-18,134	-22,991	-17,703	0	-8,066	-104,388	-6,243	-78,353	-3,458,843	
Clr Sum	-3,128,057	-20,993	-4,369	-7,002	-42,544	-18,134	-22,991	-17,703	0	-8,066	-104,388	-6,243	-78,353	-3,458,843	
Proj Net	-313,985	6,345	21,433	18,841	-18,736	10,120	4,719	7,477	40,155	19,611	-79,464	24,895	-54,594	-313,183	

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**Project No: 50001707 Belen Pure Project**

Company: 001-Electric Services  
Location: 500 Distribution

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date

List Interim In-Service Dates

Completion will occur at various times throughout the year.

Project Need Justification

The Automated Line Patrols (ALPS) process identified a large quantity of work needed for repairing and replacing aging overhead distribution construction components. The work includes cost for internal labor, material, transportation, and contractors. This work is necessary to maintain reliable service and reduce hazards to the public and PNM line crews. NMPRC Rule 17.9.560, Service Standards for Electric Utilities Rules, outlines requirements for following electrical and safety standards (National Electric Safety Code), minimizing interruption of service, and protective safety measures. Not performing this work may decrease reliability and increase hazards to PNM personnel and the public.

Project Alternatives

No alternatives are available for this project, as it is necessary to ensure system reliability and minimize hazardous risks to PNM personnel and the public. All projects are sorted by priority in terms of condition and immediate impact to the system upon failure. High risk projects that would greatly impact the system if there is a failure are addressed immediately. The work identified that does not create an immediate hazard or pose imminent failure risk is scheduled based upon the level of deterioration or condition of the equipment and also the overall circuit performance in terms of number of outages and customers affected. As this work is not of immediate priority, work can be reasonably delayed if higher priority work exists or internal or contractor crews are limited.

Technical Aspects

This project involves the like-for-like replacement of aging/obsolete or damaged equipment on distribution poles. Physical items identified for replacement include lightning arrestors, cross-arms, cut-outs, capacitors, and insulators.

Project Estimate Approach

Project work is identified through line patrols and estimates of the work are developed through the database where the information is collected. The project's annual spend was initially established to complete the backlog of work over a five year period but has since been adjusted annually and quarterly as necessary based upon variability in other distribution line construction work and availability of line crews. The work is identified by distribution lines (feeders). Those feeders which experience higher numbers of outages and impact the greatest number of customers are given higher priority scheduling. The typical breakdown of cost by categories is as follows: company labor (13%), outside services (75%), materials (10%), and company transportation (2%).

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

Cost Year 01

Project	50001707	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	67,064			1,241	2,201	2,553	4,695	5,013	1,354	84,121		
120-Overtime-General	102,604			0	0	0	0	0	0	102,604		
350-Material Issues-Major	45,999			122	651	746	703	4,028	0	52,249		
370-Outside Services	1,086,112			8,803	14,668	8,803	62,141	0	0	1,180,527		
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	12,496			98	173	201	369	395	107	13,839		
914-Pension and Benefits Load	45,999			372	659	764	1,406	1,501	405	51,106		
915-Injuries and Damages Load	11,893			81	143	166	306	327	88	13,005		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	29,566			14	72	83	78	448	0	30,261		
922-Minor Material Load	3,642			0	0	0	0	0	0	3,642		
925-E and S Loads	185,768			1,983	3,422	2,448	12,880	2,084	362	208,945		
926-A and G Loads	109,709			846	1,458	1,007	5,619	752	113	119,504		
928-AFUDC Debt Reg	1,457			0	0	0	0	0	0	1,457		
929-AFUDC - Equity Regular	2,177			0	0	0	0	0	0	2,177		
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	1,704,487			13,559	23,447	16,772	88,196	14,547	2,429	1,863,437		
825-Clearings	-1,752,027			-8,765	0	0	-119,093	0	-37,399	-1,917,284		
Clr Sum	-1,752,027			-8,765	0	0	-119,093	0	-37,399	-1,917,284		
Proj Net	-47,540			4,794	23,447	16,772	-30,897	14,547	-34,970	-53,848		

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

Cost Year 02

Project	50001707	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	84,121	1,250	808	1,221	2,205	2,814	2,090	494	422	352	612	614	864	97,867
120-Overtime-General	102,604	420	47	8,108	3,782	2,117	885	0	0	0	0	0	0	117,963
350-Material Issues-Major	52,249	296	4,150	2,692	5,378	2,482	2,557	1,422	2,575	442	2,318	2,011	1,634	80,205
370-Outside Services	1,180,527	5,768	24,993	23,542	29,753	45,652	24,323	24,696	16,082	10,975	30,414	9,521	7,249	1,433,495
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	544	257	2,074	1,555	1,620	824	0	0	0	0	0	0	6,874
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	13,839	131	67	731	469	387	233	39	33	28	48	48	68	16,121
914-Pension and Benefits Load	51,106	456	233	2,546	1,634	1,346	812	135	115	96	167	168	236	59,048
915-Injuries and Damages Load	13,005	104	53	580	372	307	185	31	26	22	38	38	54	14,816
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	30,261	51	718	466	930	429	442	246	445	77	401	348	283	35,098
922-Minor Material Load	3,642	0	0	0	0	0	0	0	0	0	0	0	0	3,642
925-E and S Loads	208,945	1,722	5,877	7,967	8,669	10,891	6,126	5,149	3,697	2,288	6,450	2,381	1,940	272,101
926-A and G Loads	119,504	556	2,033	2,529	2,868	3,675	2,062	1,788	1,282	791	2,241	816	655	140,800
928-AFUDC Debt Reg	1,457	0	0	0	0	0	0	0	0	0	0	0	0	1,457
929-AFUDC - Equity Regular	2,177	0	0	0	0	0	0	0	0	0	0	0	0	2,177
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	1,863,437	11,298	39,238	52,458	57,615	71,720	40,538	33,999	24,677	15,069	42,688	15,944	12,982	2,281,664
825-Clearings	-1,917,284	-4,129	-11,151	-19,413	-27,053	-35,986	-36,897	-36,317	-33,989	-30,205	-32,702	-29,350	-91,268	-2,305,746
Clr Sum	-1,917,284	-4,129	-11,151	-19,413	-27,053	-35,986	-36,897	-36,317	-33,989	-30,205	-32,702	-29,350	-91,268	-2,305,746
Proj Net	-53,848	7,168	28,087	33,045	30,562	35,733	3,642	-2,318	-9,312	-15,136	9,987	-13,406	-78,286	-24,082

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

Cost Year 03

Project	50001707	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	97,867	891	576	871	1,573	2,006	1,489	352	301	250	437	437	616	107,665	
120-Overtime-General	117,963	299	33	5,780	2,696	1,508	629	0	0	0	0	0	0	128,909	
350-Material Issues-Major	80,205	210	2,958	1,919	3,833	1,768	1,823	1,015	1,837	315	1,652	1,434	1,164	100,133	
370-Outside Services	1,433,495	4,112	17,815	16,783	21,208	32,543	17,337	17,603	11,463	7,823	21,680	6,787	5,166	1,613,815	
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	6,874	389	183	1,479	1,109	1,154	588	0	0	0	0	0	0	11,777	
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	16,121	93	48	521	335	276	166	28	24	20	34	34	48	17,747	
914-Pension and Benefits Load	59,048	325	166	1,815	1,165	959	578	96	82	68	119	119	168	64,709	
915-Injuries and Damages Load	14,816	74	38	414	266	219	132	22	19	16	27	27	38	16,106	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	35,098	36	512	332	663	306	315	176	318	54	286	248	201	38,545	
922-Minor Material Load	3,642	0	0	0	0	0	0	0	0	0	0	0	0	3,642	
925-E and S Loads	272,101	1,228	4,189	5,680	6,179	7,763	4,367	3,670	2,635	1,630	4,598	1,697	1,383	317,120	
926-A and G Loads	140,800	397	1,449	1,803	2,044	2,619	1,469	1,275	914	564	1,597	582	467	155,980	
928-AFUDC Debt Reg	1,457	0	0	0	0	0	0	0	0	0	0	0	0	1,457	
929-AFUDC - Equity Regular	2,177	0	0	0	0	0	0	0	0	0	0	0	0	2,177	
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	2,281,664	8,054	27,968	37,397	41,071	51,121	28,894	24,236	17,592	10,739	30,430	11,364	9,251	2,579,782	
825-Clearings	-2,305,746	-9,434	-13,141	-17,992	-22,608	-28,311	-28,427	-27,589	-25,590	-22,620	-24,182	-21,618	-67,007	-2,614,263	
Clr Sum	-2,305,746	-9,434	-13,141	-17,992	-22,608	-28,311	-28,427	-27,589	-25,590	-22,620	-24,182	-21,618	-67,007	-2,614,263	
Proj Net	-24,082	-1,380	14,827	19,405	18,464	22,811	466	-3,353	-7,997	-11,880	6,248	-10,254	-57,755	-34,480	

***Project No: 60002010 Misc Substation Improvements***

Company: 001-Electric Services

Location: 600 Distribution

**Project Information**

Construction Start Date 1/1/2014

Estimated Completion Date

List Interim In-Service Dates

Each work order is closed as completed, with an estimated 4 clearings per year.

Project Need Justification

This project addresses capital replacements or betterments at distribution substations to improve reliability, maintainability or enhance safety. Typical work might include access improvements (replacing lift grills with swing gates) to improve maintainability, adding surge arrestors to improve reliability, or switch operator ground mats to improve safety.

Project Alternatives

Alternatives for each task is evaluated on a case-by-case basis. Many tasks are replacing equipment or components with like equipment, so alternatives are not considered. In some cases, upgrades are required to obsolete equipment. In these case, subject matter experts assess the need and typically consider a replacement with a PNM standard upgrade. In all cases, alternatives are considered weighing need, cost, safety, and reliability to reach the optimum solution.

Technical Aspects

Specifically, this project will fund the need for small capital replacements or improvements at transmission stations that arise during the year. Typical work could include upgrade of surge arresters or switches to units with higher capacity ratings, installation of raptor protection shielding, the addition of oil filtration, and temperature monitoring equipment to existing breakers or transformers. Further work might address off-site storm water issues or 3rd party complaints (i.e. electromagnetic frequency issue, radio interference or noise complaints) associated with station equipment.

Project Estimate Approach

Cost estimates are prepared on a per task basis. Estimates typically include major equipment prices from master agreements, and minor material and construction costs from previous similar work and competitive bids. The cost of major material such as load tap changers, disconnect switches or surge arresters are approximately 50%, with contract labor 10%, PNM labor 35% and minor material 5%. Overall spend is tracked quarterly and adjusted to reflect timing of specific tasks.



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

Cost Year 01

Project	60002010	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	209,614		6,000	6,000	3,000	6,000	6,000	3,000	239,614		
	120-Overtime-General	43,857		0	3,000	0	0	0	0	46,857		
	350-Material Issues-Major	11,689		2,000	1,000	2,000	1,000	2,000	2,000	21,689		
	370-Outside Services	647,706		4,000	4,000	4,000	4,000	4,000	4,000	671,706		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	452		0	0	0	0	0	0	452		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	21,992		0	0	0	0	0	0	21,992		
	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	-40	-40	-40	-121		
	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	20,961		472	708	236	472	472	236	23,558		
	914-Pension and Benefits Load	81,041		1,796	2,695	898	1,796	1,796	898	90,921		
	915-Injuries and Damages Load	22,787		391	587	196	391	391	196	24,939		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	19,548		222	111	222	111	222	222	20,660		
	922-Minor Material Load	1,350		0	0	0	0	0	0	1,350		
	925-E and S Loads	207,866		2,712	3,328	1,911	2,527	2,712	1,911	222,968		
	926-A and G Loads	88,736		998	1,165	749	915	998	749	94,310		
	928-AFUDC Debt Reg	83,012		1,566	1,620	1,668	19	60	96	88,041		
	929-AFUDC - Equity Regular	86,925		1,696	1,754	1,806	21	65	104	92,371		
	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	1,547,538		21,855	25,968	16,686	17,213	18,677	13,371	1,661,307		
	825-Clearings	-1,164,565		0	0	-750,002	0	0	-49,261	-1,963,828		
	Clr Sum	-1,164,565		0	0	-750,002	0	0	-49,261	-1,963,828		
	Proj Net	382,973		21,855	25,968	-733,316	17,213	18,677	-35,890	-302,521		

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

Cost Year 02

Project	60002010	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	239,614	9,213	9,213	9,213	9,213	9,213	9,213	9,213	9,213	9,213	9,213	9,213	9,213	350,173
120-Overtime-General	46,857	24	0	0	24	0	0	0	24	0	0	0	0	46,930
350-Material Issues-Major	21,689	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	69,689
370-Outside Services	671,706	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	12,122	12,122	12,122	744,073
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	452	0	0	0	0	0	0	0	0	0	0	0	0	452
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	21,992	0	0	0	0	0	0	0	0	0	0	0	0	21,992
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	-121	-52	-52	0	0	0	0	0	0	0	0	0	0	-224
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	23,558	724	722	722	724	722	722	722	724	722	722	722	722	32,232
914-Pension and Benefits Load	90,921	2,521	2,514	2,514	2,521	2,514	2,514	2,514	2,521	2,514	2,514	2,514	2,514	121,113
915-Injuries and Damages Load	24,939	575	573	573	575	573	573	573	575	573	573	573	573	31,820
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	20,660	692	692	692	692	692	692	692	692	692	692	692	692	28,964
922-Minor Material Load	1,350	0	0	0	0	0	0	0	0	0	0	0	0	1,350
925-E and S Loads	222,968	4,043	4,036	4,036	4,043	4,036	4,036	4,036	4,043	4,036	5,596	5,596	5,596	276,103
926-A and G Loads	94,310	1,158	1,157	1,157	1,158	1,157	1,157	1,157	1,158	1,157	1,703	1,703	1,703	109,834
928-AFUDC Debt Reg	88,041	35	105	35	105	176	248	35	105	176	261	359	458	90,141
929-AFUDC - Equity Regular	92,371	46	138	46	138	231	325	46	138	231	342	471	601	95,125
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	1,661,307	26,980	27,100	26,989	27,195	27,316	27,480	26,989	27,195	27,316	37,739	37,966	38,195	2,019,767
825-Clearings	-1,963,828	0	-54,080	0	0	0	-108,980	0	0	0	0	0	-195,400	-2,322,288
Clr Sum	-1,963,828	0	-54,080	0	0	0	-108,980	0	0	0	0	0	-195,400	-2,322,288
Proj Net	-302,521	26,980	-26,980	26,989	27,195	27,316	-81,500	26,989	27,195	27,316	37,739	37,966	-157,205	-302,521

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

Cost Year 03

Project	60002010	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	350,173	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	470,173
120-Overtime-General	46,930	5,000	0	0	5,000	0	0	0	5,000	0	0	0	0	61,930
350-Material Issues-Major	69,689	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	117,689
370-Outside Services	744,073	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	792,073
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	452	0	0	0	0	0	0	0	0	0	0	0	0	452
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	21,992	0	0	0	0	0	0	0	0	0	0	0	0	21,992
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	-224	0	0	0	0	0	0	0	0	0	0	0	0	-224
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	32,232	1,176	784	784	1,176	784	784	784	1,176	784	784	784	784	42,816
914-Pension and Benefits Load	121,113	4,094	2,729	2,729	4,094	2,729	2,729	2,729	4,094	2,729	2,729	2,729	2,729	157,954
915-Injuries and Damages Load	31,820	933	622	622	933	622	622	622	933	622	622	622	622	40,217
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	28,964	692	692	692	692	692	692	692	692	692	692	692	692	37,268
922-Minor Material Load	1,350	0	0	0	0	0	0	0	0	0	0	0	0	1,350
925-E and S Loads	276,103	5,607	4,250	4,250	5,607	4,250	4,250	4,250	5,607	4,250	4,250	4,250	4,250	331,173
926-A and G Loads	109,834	1,546	1,210	1,210	1,546	1,210	1,210	1,210	1,546	1,210	1,210	1,210	1,210	125,357
928-AFUDC Debt Reg	90,141	48	134	37	122	208	283	37	122	208	283	359	434	92,418
929-AFUDC - Equity Regular	95,125	44	121	33	110	188	255	33	110	188	255	323	391	97,178
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	2,019,767	37,139	28,541	28,357	37,280	28,683	28,825	28,357	37,280	28,683	28,825	28,968	29,112	2,389,816
825-Clearings	-2,322,288	0	-65,680	0	0	0	-123,144	0	0	0	0	0	-181,225	-2,692,337
Clr Sum	-2,322,288	0	-65,680	0	0	0	-123,144	0	0	0	0	0	-181,225	-2,692,337
Proj Net	-302,521	37,139	-37,139	28,357	37,280	28,683	-94,319	28,357	37,280	28,683	28,825	28,968	-152,113	-302,521

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**Project No: 60002116 SCADA Switch Program**

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date 9/30/2018

List Interim In-Service Dates

Project consists of multiple work orders completed throughout the year with multiple in-service dates for portions of the project.

Project Need Justification

In an effort to optimize the New Mexico Operations system and reduce the System Average Interruption Duration Index (SAIDI), approximately 40 Supervisory Control and Data Acquisition (SCADA) switches will be installed at key locations along the distribution network. In addition, three new repeaters will be installed at existing sites to improve communications throughout the system. The sites included in updates are Belen Switching Station, Scenic Switching Station and the Tri-States Communication site located next to the Rio Puerco Switching Station. The SCADA-Mate installations are expected to be complete by 2018. Repeater work is expected to be complete by the end of 2017.

Project Alternatives

There are no other alternatives. Failure to take action will result in underperforming service along key distribution lines and a sub-optimal system.

Technical Aspects

New Mexico Operations has used SCADA switches over the past 15 years to deliver improved service and reduced O&M costs to problematic circuits within the distribution network. These additional 40 switches will enhance the network automation and, based on data analysis for the past five years, could reduce SAIDI by 8 minutes.

Project Estimate Approach

Hardware costs account for +80% of total costs and New Mexico Operations has already secured a fixed price from the switch supplier, including a volume discount. Estimates are based on approximately 40 SCADA-Mate switches and three new repeaters.

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

Cost Year 01

Project	60002116	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			1,000	1,000	0	0	0	0	2,000		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	0	0	105,000	0	105,000		
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	-17	-17	-17	-51		
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			79	79	0	0	0	0	157		
914-Pension and Benefits Load	0			299	299	0	0	0	0	599		
915-Injuries and Damages Load	0			65	65	0	0	0	0	130		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	0	0	11,676	0	11,676		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			267	267	0	0	19,425	0	19,959		
926-A and G Loads	0			83	83	0	0	8,736	0	8,902		
928-AFUDC Debt Reg	0			2	6	8	8	171	335	531		
929-AFUDC - Equity Regular	0			2	7	9	9	186	363	575		
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			1,798	1,806	17	0	145,177	682	149,479		
825-Clearings	0			0	0	0	0	0	-149,479	-149,479		
Cir Sum	0			0	0	0	0	0	-149,479	-149,479		
Proj Net	0			1,798	1,806	17	0	145,177	-148,798	0		

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

Cost Year 02

Project	60002116	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,000	0	0	0	0	15,000	0	0	0	15,000	0	0	0	32,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	105,000	0	0	95,333	95,333	95,333	95,333	95,333	93,000	90,000	95,333	95,333	0	955,331
	370-Outside Services	0	0	0	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	0	576,000
	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	-51	0	0	0	0	0	0	0	0	0	0	0	0	-51
	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	157	0	0	0	0	1,176	0	0	0	1,176	0	0	0	2,509
	914-Pension and Benefits Load	599	0	0	0	0	4,094	0	0	0	4,094	0	0	0	8,786
	915-Injuries and Damages Load	130	0	0	0	0	933	0	0	0	933	0	0	0	1,996
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	11,676	0	0	16,493	16,493	16,493	16,493	16,493	16,089	15,570	16,493	16,493	0	158,783
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	19,959	0	0	30,592	30,592	34,663	30,592	30,592	30,144	33,639	30,592	30,592	0	301,956
	926-A and G Loads	8,902	0	0	10,707	10,707	11,715	10,707	10,707	10,550	11,357	10,707	10,707	0	106,768
	928-AFUDC Debt Reg	531	0	0	283	851	1,456	1,619	2,195	2,770	3,373	3,058	3,643	3,948	23,727
	929-AFUDC - Equity Regular	575	0	0	371	1,116	1,910	2,124	2,879	3,633	4,424	4,011	4,778	5,178	31,000
	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	149,479	0	0	217,779	219,091	246,772	220,868	222,199	220,187	243,565	224,194	225,545	9,125	2,198,806
	825-Clearings	-149,479	0	0	0	0	-170,910	0	0	0	-354,888	0	0	-1,523,528	-2,198,806
	Clr Sum	-149,479	0	0	0	0	-170,910	0	0	0	-354,888	0	0	-1,523,528	-2,198,806
	Proj Net	0	0	0	217,779	219,091	75,861	220,868	222,199	220,187	-111,323	224,194	225,545	-1,514,403	0

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

Cost Year 03

Project	60002116	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	32,000	0	0	0	0	10,000	0	0	0	0	0	0	0	42,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	955,331	58,583	58,583	58,583	58,583	58,583	58,583	58,583	58,583	58,583	0	0	0	1,482,578
370-Outside Services	576,000	15,500	15,500	15,750	16,000	16,000	16,000	16,000	16,000	16,000	0	0	0	718,750
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	-51	0	0	0	0	0	0	0	0	0	0	0	0	-51
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	2,509	0	0	0	0	784	0	0	0	0	0	0	0	3,293
914-Pension and Benefits Load	8,786	0	0	0	0	2,729	0	0	0	0	0	0	0	11,515
915-Injuries and Damages Load	1,996	0	0	0	0	622	0	0	0	0	0	0	0	2,618
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	158,783	10,135	10,135	10,135	10,135	10,135	10,135	10,135	10,135	10,135	0	0	0	249,997
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	301,956	14,224	14,224	14,272	14,320	17,034	14,320	14,320	14,320	14,320	0	0	0	433,310
926-A and G Loads	106,768	4,978	4,978	4,995	5,012	5,684	5,012	5,012	5,012	5,012	0	0	0	152,464
928-AFUDC Debt Reg	23,727	135	406	678	953	1,252	1,199	1,477	1,756	2,036	1,636	1,645	1,653	38,552
929-AFUDC - Equity Regular	31,000	122	366	611	859	1,129	1,081	1,331	1,583	1,835	1,475	1,483	1,490	44,364
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	2,198,806	103,677	104,192	105,025	105,862	123,952	106,329	106,857	107,388	107,921	3,112	3,127	3,143	3,179,390
825-Clearings	-2,198,806	0	0	0	0	-135,677	0	0	0	-208,881	0	0	-636,026	-3,179,390
Clr Sum	-2,198,806	0	0	0	0	-135,677	0	0	0	-208,881	0	0	-636,026	-3,179,390
Proj Net	0	103,677	104,192	105,025	105,862	-11,725	106,329	106,857	107,388	-100,960	3,112	3,127	-632,883	0

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***Project No: 60005910 Substation Equipment Replacement***

Company: 001-Electric Services

Location: 600 Distribution

**Project Information**

Construction Start Date 1/1/2012

Estimated Completion Date

List Interim In-Service Dates

Anticipate 4 clearings per year as individual work orders are completed.

Project Need Justification

This project provides annual funds for the needed replacement of aging, obsolete, or failing equipment at PNM's distribution substations. These projects are typically small projects (less than \$100k each) and are needed to address equipment that is failing, cannot be easily repaired, must be upgraded to meet safety or compliance requirements, or no longer can meet current system performance requirements. Examples include replacing or upgrading substation transformer components such as primary bushings, load tap changer upgrades or replacements, replacing aging distribution circuit breakers, or upgrading aging circuit switchers in the distribution substations. The funds also cover costs for projects that will extend the life of substation equipment, such as replacing all of the gasketing on the transformer.

Project Alternatives

Each project is reviewed for various solutions. Solution can range from temporary repairs to total replacement or redesign. Criteria to evaluate solutions include ability to address performance requirements, maintenance history and availability of parts, ability to meet critical schedules, ability to address compliance or safety issues, and total owning costs.

Technical Aspects

The technical aspects of this project involve subject matter expert (supervisor) identifying critical distribution substation equipment that is in need of replacement or upgrade due to obsolescence, then evaluating best solutions. From there, material is ordered and work coordinated to upgrade or repair the component. The projects vary depending upon need, but cover the range of work described in the justification section above.

Project Estimate Approach

Based on historical repairs and upgrades, PNM has a thorough understanding of the pricing for small projects. More complicated or specialty projects are discussed with vendors/contractors prior to work commitment. Budgeted funding includes internal labor (design, project coordination, and in-house crews), materials and equipment, and use of contractors or station specialty services. PNM reviewed historical spend on an annual basis across the last 5 years to develop the future budget. In addition to the historical funding, PNM also looked at trends which are developing on our system, equipment which is nearing end of productive life, changes developing in compliance, environmental, and safety requirements, results from inspections and testing, all of which need to be considered when estimating budgets and implementing projects. There is a slight uptick in anticipated spend due to 1) the age of much of the system equipment indicates a higher need for repairs / replacements and 2) added compliance requirements that have resulted in the need for upgrades / replacements. These estimates also include funds to address emergent issues such as unforeseen failures.



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

Cost Year 01

Project	60005910	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	359,947		18,000	30,000	30,000	25,000	20,000	20,000	502,947		
	120-Overtime-General	100,640		5,000	5,000	5,000	5,000	5,000	1,000	126,640		
	350-Material Issues-Major	37,683		3,000	3,000	0	3,000	0	3,000	49,683		
	370-Outside Services	602,442		22,000	20,000	22,000	20,000	22,000	22,000	730,442		
	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	10,205		0	0	0	0	0	0	10,205		
	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	-235		0	0	0	0	0	0	-235		
	829-Construction Adjustment	0		0	0	0	-310	-272	-252	-833		
	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	37,441		1,810	2,755	2,755	2,361	1,968	1,653	50,741		
	914-Pension and Benefits Load	140,597		6,886	10,479	10,479	8,982	7,485	6,287	191,195		
	915-Injuries and Damages Load	37,029		1,500	2,282	2,282	1,956	1,630	1,369	48,048		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	60,098		334	334	0	334	0	334	61,433		
	922-Minor Material Load	2,441		0	0	0	0	0	0	2,441		
	925-E and S Loads	440,342		10,766	13,600	13,415	12,265	10,745	10,232	511,367		
	926-A and G Loads	223,962		3,994	4,826	4,742	4,410	3,910	3,827	249,670		
	928-AFUDC Debt Reg	36,796		628	247	173	149	130	121	38,242		
	929-AFUDC - Equity Regular	42,049		680	267	187	161	141	131	43,615		
	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	2,131,434		74,597	92,789	91,033	83,308	72,738	69,702	2,615,600		
	825-Clearings	-3,930,459		-253,155	-124,862	-97,799	-86,206	-75,431	-70,848	-4,638,760		
	Clr Sum	-3,930,459		-253,155	-124,862	-97,799	-86,206	-75,431	-70,848	-4,638,760		
	Proj Net	-1,799,024		-178,559	-32,073	-6,766	-2,898	-2,694	-1,146	-2,023,160		

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

Cost Year 02

Project	60005910	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	502,947	13,820	13,820	13,820	13,820	13,820	13,820	13,820	13,820	13,820	13,820	13,820	13,820	668,786
120-Overtime-General	126,640	0	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	148,640
350-Material Issues-Major	49,683	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	109,683
370-Outside Services	730,442	0	0	0	0	0	4,000	0	0	0	0	0	0	734,442
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	10,205	0	0	0	0	0	0	0	0	0	0	0	0	10,205
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	-235	0	0	0	0	0	0	0	0	0	0	0	0	-235
829-Construction Adjustment	-833	-202	-202	0	0	0	0	0	0	0	0	0	0	-1,237
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	50,741	1,083	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	65,467
914-Pension and Benefits Load	191,195	3,771	4,317	4,317	4,317	4,317	4,317	4,317	4,317	4,317	4,317	4,317	4,317	242,456
915-Injuries and Damages Load	48,048	860	984	984	984	984	984	984	984	984	984	984	984	59,732
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	61,433	865	865	865	865	865	865	865	865	865	865	865	865	71,813
922-Minor Material Load	2,441	0	0	0	0	0	0	0	0	0	0	0	0	2,441
925-E and S Loads	511,367	4,711	5,253	5,253	5,253	5,253	6,021	5,253	5,253	5,253	5,253	5,253	5,253	574,633
926-A and G Loads	249,670	1,265	1,399	1,399	1,399	1,399	1,668	1,399	1,399	1,399	1,399	1,399	1,399	266,594
928-AFUDC Debt Reg	38,242	87	109	123	130	134	142	143	140	139	138	230	322	40,078
929-AFUDC - Equity Regular	43,615	114	143	161	171	175	186	187	184	182	181	301	422	46,023
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	2,615,600	31,374	34,930	35,163	35,180	35,188	40,244	35,209	35,203	35,199	35,198	35,410	35,623	3,039,520
825-Clearings	-4,638,760	-24,543	-29,736	-32,450	-33,815	-34,501	-37,373	-36,291	-35,747	-35,473	0	0	-70,852	-5,009,540
Clr Sum	-4,638,760	-24,543	-29,736	-32,450	-33,815	-34,501	-37,373	-36,291	-35,747	-35,473	0	0	-70,852	-5,009,540
Proj Net	-2,023,160	6,831	5,193	2,713	1,365	687	2,871	-1,082	-544	-274	35,198	35,410	-35,229	-1,970,020

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

Cost Year 03

Project	60005910	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	668,786	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	848,786
120-Overtime-General	148,640	0	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	170,640
350-Material Issues-Major	109,683	6,167	6,167	6,167	6,167	6,167	6,167	6,167	6,167	6,167	6,167	6,167	6,167	183,683
370-Outside Services	734,442	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	914,442
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	10,205	0	0	0	0	0	0	0	0	0	0	0	0	10,205
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	-235	0	0	0	0	0	0	0	0	0	0	0	0	-235
829-Construction Adjustment	-1,237	0	0	0	0	0	0	0	0	0	0	0	0	-1,237
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	65,467	1,176	1,333	1,333	1,333	1,333	1,333	1,333	1,333	1,333	1,333	1,333	1,333	81,304
914-Pension and Benefits Load	242,456	4,094	4,639	4,639	4,639	4,639	4,639	4,639	4,639	4,639	4,639	4,639	4,639	297,582
915-Injuries and Damages Load	59,732	933	1,057	1,057	1,057	1,057	1,057	1,057	1,057	1,057	1,057	1,057	1,057	72,296
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	71,813	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	84,615
922-Minor Material Load	2,441	0	0	0	0	0	0	0	0	0	0	0	0	2,441
925-E and S Loads	574,633	8,135	8,678	8,678	8,678	8,678	8,678	8,678	8,678	8,678	8,678	8,678	8,678	678,222
926-A and G Loads	266,594	2,430	2,565	2,565	2,565	2,565	2,565	2,565	2,565	2,565	2,565	2,565	2,565	297,237
928-AFUDC Debt Reg	40,078	256	402	555	708	861	1,016	623	776	930	1,085	1,241	1,397	49,927
929-AFUDC - Equity Regular	46,023	230	363	500	638	776	916	562	700	839	978	1,118	1,259	54,902
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	3,039,520	54,487	58,271	58,560	58,851	59,143	59,437	58,690	58,981	59,274	59,569	59,864	60,162	3,744,809
825-Clearings	-5,009,540	0	0	0	0	0	-209,800	0	0	0	0	0	-424,756	-5,644,095
Clr Sum	-5,009,540	0	0	0	0	0	-209,800	0	0	0	0	0	-424,756	-5,644,095
Proj Net	-1,970,020	54,487	58,271	58,560	58,851	59,143	-150,363	58,690	58,981	59,274	59,569	59,864	-364,594	-1,899,287

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***Project No: 89900207 Line Extensions - Commercial***

Company: 001-Electric Services  
Location: 899 Distribution

**Project Information**

Construction Start Date                      1/1/2017                      Estimated Completion Date

List Interim In-Service Dates

This project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

This project is necessary to meet PNM’s obligation to serve new customers and provides for the installation of distribution line extensions necessary to serve new or expanding non-residential customers.

Project Alternatives

Because this project is necessary for PNM to serve new customers, there are no alternatives to conducting this work. Nonetheless, line extension options for each new service request are evaluated individually taking into account many factors such as available capacity on existing lines, route distances, customer preferences, and right-of way requirements, per PNM Rule 15. The best method for the extension is selected based on a balance of cost, timing, and efficacy.

Technical Aspects

Line extensions are designed to the minimum system requirements in accordance with PNM Rule 15. Physical components include but are not limited to primary wires, secondary wires, wood or steel poles and other supporting structures, trenches, switchgear, and duct-bank systems.

Project Estimate Approach

Historical spend in this funding project was analyzed to develop this project’s estimated spend. This blanket’s project spend forecast is prepared by escalating the most recent 12-month actual spend (July 2015-June 2016) by the second quarter reforecast (Q2RF) of expected customer growth provided by PNM Strategic Marketing & Product Management expressed as the percentage change in number of new customers year-over-year. The typical breakdown of total cost by high level cost categories is as follows: outside services including contract labor 41%, material 39%, PNM labor 15%, and PNM transportation & equipment 4%. This breakdown typically fluctuates for each project depending on the specifics and complexity of the project and whether or customers elect the PNM Built or Customer Built Option. Under the Customer Built Option, PNM purchases the system from the customer for \$1 and pays the customer for the entitled credits less PNM’s cost to design and energize the system. Many residential subdivision projects are built under the Customer Built Option, where customers are responsible for line extension costs less allowed credits under PNM’s Rule 15. This project provides for PNM’s portion of the cost of these line extensions.

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

Cost Year 01

Project	89900207	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	1,154,044			8,501	15,501	5,444	7,020	7,927	9,435	1,207,873		
120-Overtime-General	33,974			-346	367	0	752	205	602	35,553		
350-Material Issues-Major	3,512,494			48,467	37,850	32,568	33,000	9,132	22,862	3,696,373		
370-Outside Services	2,318,434			41,248	28,000	25,000	21,636	21,000	21,803	2,477,121		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	93,418			-5	5	0	0	1	157	93,576		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	399			0	0	0	0	0	0	399		
610-Expenses - General	9,080			1,550	2,167	1,583	1,220	817	1,531	17,948		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	-6,326,038			-65,397	-46,345	7,624	-12,883	-142,905	-69,235	-6,655,179		
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	99,868			642	1,249	428	612	640	790	104,228		
914-Pension and Benefits Load	377,208			2,442	4,751	1,630	2,327	2,435	3,005	393,797		
915-Injuries and Damages Load	103,530			532	1,035	355	507	530	654	107,143		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	364,633			5,390	4,209	3,622	3,670	1,015	2,542	385,080		
922-Minor Material Load	237,273			0	0	0	0	0	0	237,273		
925-E and S Loads	1,402,618			19,061	16,821	12,396	12,409	7,897	11,255	1,482,457		
926-A and G Loads	490,077			8,271	6,980	5,374	5,294	3,252	4,692	523,940		
928-AFUDC Debt Reg	11,857			0	0	0	0	0	0	11,857		
929-AFUDC - Equity Regular	31,907			0	0	0	0	0	0	31,907		
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	3,914,776			70,356	72,589	96,024	75,562	-88,055	10,093	4,151,345		
825-Clearings	-4,802,126			32,739	5,354	-21,004	-35,189	-3,146	-4,952	-4,828,324		
Clr Sum	-4,802,126			32,739	5,354	-21,004	-35,189	-3,146	-4,952	-4,828,324		
Proj Net	-887,350			103,095	77,943	75,020	40,373	-91,201	5,141	-676,979		

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

Cost Year 02

Project	89900207	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	1,207,873	15,691	12,133	16,981	10,705	32,774	-2,922	20,760	21,547	5,590	2,537	4,756	7,627	1,356,052
120-Overtime-General	35,553	1,849	1,430	2,001	1,262	3,862	-344	2,447	2,539	659	299	561	899	53,017
350-Material Issues-Major	3,696,373	22,919	17,722	24,804	15,637	47,872	-4,269	30,324	31,473	8,166	3,706	6,947	11,140	3,912,814
370-Outside Services	2,477,121	28,639	22,145	30,995	19,539	59,820	-5,334	37,892	39,328	10,203	4,631	8,681	13,920	2,747,580
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	93,576	0	0	-1	0	0	0	-8	8	0	0	2	252	93,828
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	399	0	0	0	0	0	0	0	0	0	0	0	0	399
610-Expenses - General	17,948	3,439	2,659	3,722	2,347	7,184	-641	4,550	4,723	1,225	556	1,043	1,672	50,427
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-6,655,179	-30,917	-23,906	-33,460	-21,093	-64,578	5,758	-40,905	-42,456	-11,015	-4,999	-9,372	-15,028	-6,947,150
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	104,228	1,375	1,063	1,488	938	2,872	-256	1,819	1,888	490	222	417	668	117,215
914-Pension and Benefits Load	393,797	4,787	3,701	5,180	3,266	9,998	-891	6,333	6,573	1,705	774	1,451	2,327	439,001
915-Injuries and Damages Load	107,143	1,091	844	1,181	744	2,279	-203	1,443	1,498	389	176	331	530	117,446
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	385,080	3,965	3,066	4,291	2,705	8,282	-739	5,246	5,445	1,413	641	1,202	1,927	422,524
922-Minor Material Load	237,273	0	0	0	0	0	0	0	0	0	0	0	0	237,273
925-E and S Loads	1,482,457	15,320	11,846	16,579	10,452	31,999	-2,853	20,268	21,039	5,458	2,477	4,644	7,495	1,627,181
926-A and G Loads	523,940	4,874	3,769	5,275	3,326	10,182	-908	6,449	6,694	1,737	788	1,478	2,386	569,990
928-AFUDC Debt Reg	11,857	0	0	0	0	0	0	0	0	0	0	0	0	11,857
929-AFUDC - Equity Regular	31,907	0	0	0	0	0	0	0	0	0	0	0	0	31,907
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	4,151,345	73,032	56,472	79,037	49,828	152,545	-13,602	96,619	100,299	26,019	11,809	22,140	35,815	4,841,360
825-Clearings	-4,828,324	-24,395	-33,377	-46,162	-47,188	-76,688	-51,407	-64,066	-74,212	-60,718	-47,023	-40,056	-38,869	-5,432,486
Clr Sum	-4,828,324	-24,395	-33,377	-46,162	-47,188	-76,688	-51,407	-64,066	-74,212	-60,718	-47,023	-40,056	-38,869	-5,432,486
Proj Net	-676,979	48,636	23,095	32,875	2,640	75,857	-65,009	32,553	26,088	-34,698	-35,214	-17,916	-3,053	-591,126

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

Cost Year 03

Project	89900207	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	1,356,052	10,972	8,484	11,875	7,486	22,918	-2,044	14,517	15,068	3,909	1,774	3,326	5,333	1,459,670
120-Overtime-General	53,017	1,293	1,000	1,399	882	2,701	-241	1,711	1,776	461	209	392	629	65,229
350-Material Issues-Major	3,912,814	15,948	12,332	17,260	10,881	33,312	-2,970	21,101	21,901	5,682	2,579	4,834	7,752	4,063,426
370-Outside Services	2,747,580	19,928	15,410	21,568	13,596	41,626	-3,712	26,367	27,367	7,100	3,222	6,041	9,687	2,935,780
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	93,828	0	0	-1	0	0	0	-9	9	0	0	2	283	94,112
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	399	0	0	0	0	0	0	0	0	0	0	0	0	399
610-Expenses - General	50,427	2,393	1,851	2,590	1,633	4,999	-446	3,166	3,287	853	387	725	1,163	73,028
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-6,947,150	-21,513	-16,635	-23,283	-14,678	-44,937	4,007	-28,464	-29,543	-7,665	-3,478	-6,521	-10,457	-7,150,317
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	117,215	962	744	1,041	656	2,009	-179	1,272	1,321	343	155	291	467	126,296
914-Pension and Benefits Load	439,001	3,347	2,588	3,622	2,284	6,991	-624	4,429	4,597	1,193	541	1,015	1,627	470,611
915-Injuries and Damages Load	117,446	763	590	826	520	1,594	-142	1,009	1,048	272	123	231	371	124,650
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	422,524	2,759	2,133	2,986	1,882	5,763	-514	3,650	3,789	983	446	836	1,341	448,580
922-Minor Material Load	237,273	0	0	0	0	0	0	0	0	0	0	0	0	237,273
925-E and S Loads	1,627,181	10,676	8,256	11,554	7,284	22,301	-1,989	14,124	14,664	3,804	1,726	3,237	5,244	1,728,062
926-A and G Loads	569,990	3,396	2,626	3,675	2,317	7,093	-633	4,493	4,664	1,210	549	1,030	1,670	602,080
928-AFUDC Debt Reg	11,857	0	0	0	0	0	0	0	0	0	0	0	0	11,857
929-AFUDC - Equity Regular	31,907	0	0	0	0	0	0	0	0	0	0	0	0	31,907
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	4,841,360	50,924	39,379	55,112	34,743	106,369	-9,486	67,367	69,947	18,144	8,234	15,439	25,110	5,322,642
825-Clearings	-5,432,486	-42,244	-41,442	-45,270	-42,322	-60,255	-40,728	-48,187	-54,279	-44,161	-34,102	-28,876	-27,822	-5,942,174
Clr Sum	-5,432,486	-42,244	-41,442	-45,270	-42,322	-60,255	-40,728	-48,187	-54,279	-44,161	-34,102	-28,876	-27,822	-5,942,174
Proj Net	-591,126	8,680	-2,063	9,843	-7,579	46,114	-50,214	19,180	15,667	-26,018	-25,867	-13,437	-2,712	-619,532

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**Project No: 89900607 Distr. Remove & Replace**

Company: 001-Electric Services  
Location: 899 Distribution

Project Information

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

This project consists of individual work orders placed in service at various times throughout the year as determined by governmental road widening schedules and the occurrence of significant storms.

Project Need Justification

This project is primarily to replace storm damaged equipment within the service area and other repairs as a result of government-led roadway improvement projects. The work is required under franchise agreements or as necessary for maintaining system integrity, restoring power after storms, and for the safe and reliable operation of the distribution facilities.

Project Alternatives

These projects are a result of government franchise agreements and/or to repair storm-damaged facilities. Therefore, limits project alternatives available. In most cases, work will involve the replacement of like for like equipment. Other configurations will be evaluated on a case-by-case basis taking into account the best options available.

Technical Aspects

This project includes relocation of electric distribution facilities in road rights-of-way and also the removal and replacement of existing electric distribution facilities that have been damaged during storms or deteriorated through normal aging. Work will include the design, installation, and removal of wire, poles, pole hardware (including insulators, cross arms, cut outs, anchor assemblies, overhead and underground switches, protection equipment, underground cable and conduits) and other equipment.

Project Estimate Approach

Because a significant portion of the activities for this project include replacement of storm damaged facilities, the work required is largely unknown at the time of forecast. Historical spend in this funding project is analyzed to develop this project’s estimated spend. The initial budget for this project was developed by applying escalation factors to the most recent 12-month actual spend (July 2015-June 2016) by the second quarter reforecast (Q2RF) expected customer growth provided by PNM Strategic Marketing & Product Management expressed as the percentage change in number of new customers year-over-year. Additionally, labor and non-labor cost components are escalated using annual expected cost increase percentages as supplied by PNM budget. The typical breakdown of cost by categories is as follows: outside services (43%), company labor (19%), materials (31%), and company transportation (7%). This breakdown can fluctuate depending on the nature of the removals and replacement facilities including whether they are overhead construction or underground facilities



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

Cost Year 01

Project	89900607	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	736,073			20,371	9,872	8,423	5,023	2,843	2,053	784,658		
120-Overtime-General	232,531			1,111	4,728	2,538	2,326	-87	1,993	245,140		
350-Material Issues-Major	1,726,431			30,416	8,287	10,432	6,643	10,746	131	1,793,086		
370-Outside Services	1,198,431			33,310	3,795	18,732	4,534	7,731	1,193	1,267,727		
374-Outside Svcs Legal	0			0	0	0	0	0	0	0		
377-Outside Services-Temp Labor	19,200			0	0	49	0	197	39	19,485		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0		
530-Employee Expense	3,489			0	0	0	0	0	0	3,489		
610-Expenses - General	7,960			2,134	5,141	4,444	2,916	2,474	1,123	26,192		
805-Land and Land Rights	0			0	0	0	0	0	0	0		
807-Non Refundable Contribution	-1,565,113			-9,710	-218,654	-331,621	-1,610	-11,816	-1,817	-2,140,341		
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	79,210			1,691	1,149	863	578	217	318	84,026		
914-Pension and Benefits Load	295,995			6,432	4,371	3,282	2,200	825	1,211	314,317		
915-Injuries and Damages Load	81,580			1,401	952	715	479	180	264	85,570		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	209,393			3,382	922	1,160	739	1,195	15	216,805		
922-Minor Material Load	130,503			0	0	0	0	0	0	130,503		
925-E and S Loads	804,504			17,920	7,085	9,153	4,569	4,648	1,540	849,420		
926-A and G Loads	289,356			7,267	2,648	3,712	1,784	1,989	543	307,299		
928-AFUDC Debt Reg	900			0	0	0	0	0	0	900		
929-AFUDC - Equity Regular	271			0	0	0	0	0	0	271		
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	4,250,713			115,724	-169,704	-268,118	30,182	21,141	8,608	3,988,546		
825-Clearings	-3,903,352			-341,400	-177,847	-35,138	-33,552	-29,581	-22,869	-4,543,738		
Clr Sum	-3,903,352			-341,400	-177,847	-35,138	-33,552	-29,581	-22,869	-4,543,738		
Proj Net	347,360			-225,676	-347,550	-303,256	-3,370	-8,439	-14,262	-555,193		

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

Cost Year 02

Project	89900607	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	784,658	6,352	4,056	2,974	16,872	19,400	14,582	2,729	4,359	525	2,015	1,770	1,933	862,224
120-Overtime-General	245,140	2,234	1,426	1,046	3,779	4,975	3,434	960	1,533	184	708	622	679	266,720
350-Material Issues-Major	1,793,086	30,821	19,680	14,428	18,541	35,030	13,766	13,240	21,147	2,545	9,775	8,589	9,379	1,990,027
370-Outside Services	1,267,727	25,979	16,588	12,161	15,628	29,528	11,603	11,160	17,825	3,650	8,240	7,280	7,906	1,435,275
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	19,485	8	5	3	5	9	3	3	5	1	3	3	3	19,537
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	3,489	0	0	0	0	0	0	0	0	0	0	0	0	3,489
610-Expenses - General	26,192	2,708	1,729	1,268	1,630	3,078	1,209	1,163	1,858	224	859	754	824	43,495
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-2,140,341	-11,371	-7,261	-5,323	-6,840	-12,924	-5,079	-4,885	-7,802	-939	-3,606	-3,169	-3,461	-2,213,001
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	84,026	673	430	315	1,619	1,911	1,412	289	462	56	213	188	205	91,799
914-Pension and Benefits Load	314,317	2,343	1,496	1,097	5,636	6,652	4,917	1,007	1,608	193	743	653	713	341,374
915-Injuries and Damages Load	85,570	534	341	250	1,285	1,516	1,121	229	366	44	169	149	163	91,737
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	216,805	5,332	3,405	2,496	3,208	6,060	2,382	2,290	3,658	440	1,691	1,486	1,623	250,875
922-Minor Material Load	130,503	0	0	0	0	0	0	0	0	0	0	0	0	130,503
925-E and S Loads	849,420	13,757	8,784	6,440	12,479	19,603	9,993	5,910	9,439	1,425	4,363	3,841	4,186	949,642
926-A and G Loads	307,299	4,576	2,922	2,142	3,794	6,184	2,997	1,966	3,140	479	1,451	1,278	1,393	339,622
928-AFUDC Debt Reg	900	0	0	0	0	0	0	0	0	0	0	0	0	900
929-AFUDC - Equity Regular	271	0	0	0	0	0	0	0	0	0	0	0	0	271
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	3,988,546	83,947	53,601	39,297	77,634	121,021	62,340	36,063	57,600	8,827	26,625	23,444	25,546	4,604,489
825-Clearings	-4,543,738	-42,414	-45,994	-29,010	-15,720	-33,466	-53,835	-26,422	-31,931	-101,810	-47,316	-30,088	-81,016	-5,082,760
Clr Sum	-4,543,738	-42,414	-45,994	-29,010	-15,720	-33,466	-53,835	-26,422	-31,931	-101,810	-47,316	-30,088	-81,016	-5,082,760
Proj Net	-555,193	41,533	7,607	10,287	61,915	87,554	8,505	9,641	25,668	-92,983	-20,691	-6,644	-55,471	-478,271

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

Cost Year 03

Project	89900607	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	862,224	8,090	5,166	3,787	4,867	9,195	3,613	3,475	5,551	668	2,566	2,254	2,462	913,916
120-Overtime-General	266,720	2,844	1,816	1,332	1,711	3,233	1,271	1,222	1,952	235	902	793	866	284,898
350-Material Issues-Major	1,990,027	39,059	24,941	18,285	23,497	44,394	17,445	16,779	26,800	3,224	12,388	10,884	11,887	2,239,609
370-Outside Services	1,435,275	32,923	21,023	15,412	19,806	37,421	14,705	14,143	22,590	2,718	10,442	9,175	10,019	1,645,652
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	19,537	10	7	5	6	11	5	4	7	1	3	3	3	19,599
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	3,489	0	0	0	0	0	0	0	0	0	0	0	0	3,489
610-Expenses - General	43,495	3,432	2,191	1,607	2,064	3,901	1,533	1,474	2,355	283	1,089	956	1,045	65,425
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-2,213,001	-12,537	-8,005	-5,869	-7,542	-14,250	-5,600	-5,386	-8,603	-1,035	-3,976	-3,494	-3,816	-2,293,113
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	91,799	857	547	401	516	974	383	368	588	71	272	239	261	97,277
914-Pension and Benefits Load	341,374	2,984	1,905	1,397	1,795	3,392	1,333	1,282	2,048	246	946	832	908	360,441
915-Injuries and Damages Load	91,737	680	434	318	409	773	304	292	467	56	216	190	207	96,082
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	250,875	6,757	4,315	3,163	4,065	7,680	3,018	2,903	4,636	558	2,143	1,883	2,056	294,053
922-Minor Material Load	130,503	0	0	0	0	0	0	0	0	0	0	0	0	130,503
925-E and S Loads	949,642	17,449	11,142	8,168	10,497	19,832	7,794	7,496	11,973	1,440	5,534	4,862	5,310	1,061,138
926-A and G Loads	339,622	5,803	3,706	2,717	3,491	6,596	2,592	2,493	3,982	479	1,841	1,617	1,766	376,704
928-AFUDC Debt Reg	900	0	0	0	0	0	0	0	0	0	0	0	0	900
929-AFUDC - Equity Regular	271	0	0	0	0	0	0	0	0	0	0	0	0	271
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	4,604,489	108,352	69,186	50,723	65,182	123,151	48,395	46,545	74,345	8,943	34,365	30,194	32,974	5,296,844
825-Clearings	-5,082,760	-38,251	-51,995	-55,791	-23,109	-42,899	-63,704	-31,604	-38,716	-122,865	-57,551	-36,836	-99,853	-5,745,932
Clr Sum	-5,082,760	-38,251	-51,995	-55,791	-23,109	-42,899	-63,704	-31,604	-38,716	-122,865	-57,551	-36,836	-99,853	-5,745,932
Proj Net	-478,271	70,101	17,191	-5,068	42,074	80,252	-15,309	14,941	35,629	-113,922	-23,186	-6,642	-66,879	-449,088

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**Project No: 89900807 Services \$913,063 \$5,909 \$913,063**

Company: 001-Electric Services  
Location: 899 Distribution

Project Information

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

Generally, blanket work orders of this nature are cleared quarterly.

Project Need Justification

This project provides for the electrical connection of residential and non-residential customers’ facilities to PNM’s distribution system primarily within Sandoval County. The project includes the cost of PNM labor, materials, outside services (contractors), and PNM transportation costs. PNM is obligated to serve customers within its service territory. PNM's and the customer’s service cost responsibilities are defined within PNM’s Rules and Regulations, specifically Rules 15, 16, & 18 filed with the New Mexico Public Regulatory Commission (NMPRC) pursuant to NMPRC Rule 210.

Project Alternatives

This project is required to provide service to new customers and existing customers upgrading their service. Customers may be served with either an overhead or underground service depending on the distribution system configuration from which they will be served and the customer's preference. For each service to a new residential customer or a non-residential customer served with an overhead service, the point of service location, service wire size and length, and route are defined to maintain service voltage within regulatory requirements. Non-residential customers located in underground electric distribution areas, or residential or non-residential customers located in overhead electric distribution areas but requesting and underground service, are required to provide the service wires per PNM rules.

Technical Aspects

This project includes the installation, connection, and in the case of service retirement, removal costs of overhead and underground conductors leading from the point where PNM wires leave the last pole or distribution box to the point of connection with the residential or non-residential customer. Only costs of labor, outside services, and transportation are included in the project. Service material costs associated with the services installed within Sandoval County are not included within this project but instead captured in the Albuquerque services blanket, 10000807, due to PNM’s centralized metro area warehouse.

#### Project Estimate Approach

Since the number, length, and types of services to be installed in a given year is unknown at the time of budget preparation, the budget for this blanket is estimated by applying escalation factors to historical spend. The initial budget for this project was developed by applying customer growth and cost escalation factors to the most recent 12-month actual spend (July 2015-June 2016). The customer growth escalation factor is derived from the second quarter reforecast (Q2RF) expected customer growth provided by PNM Strategic Marketing and Product Management expressed as the percentage change in number of new customers year-over-year. Additionally, labor and non-labor cost components are escalated using annual expected cost increase percentages as supplied by PNM Budget. The typical breakdown of cost by categories is as follows: company labor (41%), outside services (47%), and company transportation (11%). This breakdown can vary over time depending on the number, type, and locations of service installations.

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

Cost Year 01

Project	89900807	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	745,712		0	0	4,201	458	0	26,103	776,474		
	120-Overtime-General	46,206		59	26	241	263	28	886	47,709		
	350-Material Issues-Major	384,088		1	1	8	8	1	34	384,141		
	370-Outside Services	1,568,693		4,517	4,015	8,912	13,159	14,585	21,704	1,635,585		
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0		
	377-Outside Services-Temp Labor	208,374		0	0	0	0	0	0	208,374		
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0		
	530-Employee Expense	1,536		0	0	0	0	0	0	1,536		
	610-Expenses - General	-43,911		307	310	605	1,007	1,110	1,264	-39,308		
	805-Land and Land Rights	0		0	0	0	0	0	0	0		
	807-Non Refundable Contribution	-19,666		-15	-5	-139	4	-15	-378	-20,214		
	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	66,023		5	2	350	57	2	2,124	68,563		
	914-Pension and Benefits Load	252,062		18	8	1,330	216	8	8,081	261,722		
	915-Injuries and Damages Load	63,736		4	2	290	47	2	1,760	65,840		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	54,456		0	0	1	1	0	4	54,462		
	922-Minor Material Load	16,836		0	0	0	0	0	0	16,836		
	925-E and S Loads	593,552		908	807	2,948	2,815	2,911	11,462	615,404		
	926-A and G Loads	207,228		406	362	1,162	1,239	1,308	4,159	215,865		
	928-AFUDC Debt Reg	74,909		0	0	0	0	0	0	74,909		
	929-AFUDC - Equity Regular	14,205		0	0	0	0	0	0	14,205		
	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	4,234,040		6,210	5,528	19,908	19,273	19,941	77,202	4,382,102		
	825-Clearings	-4,439,372		-82,587	0	0	-52,285	0	-110,214	-4,684,459		
	Clr Sum	-4,439,372		-82,587	0	0	-52,285	0	-110,214	-4,684,459		
	Proj Net	-205,332		-76,377	5,528	19,908	-33,012	19,941	-33,012	-302,357		

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

Cost Year 02

Project	89900807	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	776,474	5,402	6,346	4,276	4,426	5,005	5,464	5,722	5,093	4,869	6,069	4,399	4,756	838,299
120-Overtime-General	47,709	488	573	387	400	453	494	517	461	440	548	397	951	53,817
350-Material Issues-Major	384,141	0	0	0	0	0	0	0	0	0	0	0	0	384,141
370-Outside Services	1,635,585	15,235	17,895	12,060	12,482	14,115	15,409	16,138	14,363	13,733	17,115	12,404	12,384	1,808,918
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	208,374	0	0	0	0	0	0	0	0	0	0	0	0	208,374
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	1,536	0	0	0	0	0	0	0	0	0	0	0	0	1,536
610-Expenses - General	-39,308	-237	-279	-188	-194	-220	-241	-252	-224	-214	-267	-193	-151	-41,967
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-20,214	-95	-112	-75	-78	-88	-96	-101	-90	-86	-107	-77	0	-21,220
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	68,563	462	542	366	378	428	467	489	435	416	519	376	447	73,889
914-Pension and Benefits Load	261,722	1,607	1,888	1,273	1,317	1,489	1,626	1,703	1,516	1,449	1,806	1,309	1,557	280,262
915-Injuries and Damages Load	65,840	366	430	290	300	339	371	388	345	330	412	298	355	70,066
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	54,462	0	0	0	0	0	0	0	0	0	0	0	0	54,462
922-Minor Material Load	16,836	0	0	0	0	0	0	0	0	0	0	0	0	16,836
925-E and S Loads	615,404	4,478	5,260	3,545	3,669	4,149	4,529	4,743	4,222	4,037	5,031	3,646	3,897	666,610
926-A and G Loads	215,865	1,404	1,649	1,111	1,150	1,300	1,420	1,487	1,323	1,265	1,577	1,143	1,206	231,900
928-AFUDC Debt Reg	74,909	0	0	0	0	0	0	0	0	0	0	0	0	74,909
929-AFUDC - Equity Regular	14,205	0	0	0	0	0	0	0	0	0	0	0	0	14,205
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	4,382,102	29,109	34,192	23,044	23,851	26,969	29,442	30,834	27,446	26,239	32,702	23,702	25,402	4,715,035
825-Clearings	-4,684,459	-13,972	-4,440	-6,793	-41,646	-17,579	-23,010	-18,901	0	-7,487	-103,501	-5,616	-73,790	-5,001,193
Clr Sum	-4,684,459	-13,972	-4,440	-6,793	-41,646	-17,579	-23,010	-18,901	0	-7,487	-103,501	-5,616	-73,790	-5,001,193
Proj Net	-302,357	15,136	29,752	16,251	-17,794	9,391	6,432	11,933	27,446	18,752	-70,799	18,086	-48,388	-286,159

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

Cost Year 03

Project	89900807	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	838,299	5,710	5,681	6,673	4,498	4,655	5,264	5,746	6,018	5,357	5,121	6,382	4,626	904,030
120-Overtime-General	53,817	516	514	603	407	421	476	519	544	484	463	577	418	59,759
350-Material Issues-Major	384,141	0	0	0	0	0	0	0	0	0	0	0	0	384,141
370-Outside Services	1,808,918	16,026	15,944	18,728	12,622	13,063	14,772	16,127	16,889	15,033	14,372	17,912	12,981	1,993,387
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	208,374	0	0	0	0	0	0	0	0	0	0	0	0	208,374
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	1,536	0	0	0	0	0	0	0	0	0	0	0	0	1,536
610-Expenses - General	-41,967	-250	-249	-292	-197	-204	-230	-251	-263	-234	-224	-279	-202	-44,842
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	-21,220	-100	-100	-117	-79	-82	-92	-101	-106	-94	-90	-112	-81	-22,374
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	73,889	488	486	570	385	398	450	491	514	458	438	546	395	79,508
914-Pension and Benefits Load	280,262	1,699	1,691	1,986	1,339	1,385	1,566	1,710	1,791	1,594	1,524	1,899	1,377	299,821
915-Injuries and Damages Load	70,066	387	385	453	305	316	357	390	408	363	347	433	314	74,524
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	54,462	0	0	0	0	0	0	0	0	0	0	0	0	54,462
922-Minor Material Load	16,836	0	0	0	0	0	0	0	0	0	0	0	0	16,836
925-E and S Loads	666,610	4,719	4,695	5,514	3,717	3,847	4,350	4,748	4,973	4,427	4,232	5,274	3,822	720,927
926-A and G Loads	231,900	1,479	1,471	1,728	1,165	1,205	1,363	1,488	1,558	1,387	1,326	1,653	1,198	248,919
928-AFUDC Debt Reg	74,909	0	0	0	0	0	0	0	0	0	0	0	0	74,909
929-AFUDC - Equity Regular	14,205	0	0	0	0	0	0	0	0	0	0	0	0	14,205
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	4,715,035	30,674	30,517	35,846	24,161	25,004	28,276	30,867	32,327	28,775	27,509	34,284	24,848	5,068,121
825-Clearings	-5,001,193	-22,498	-4,940	-8,580	-49,675	-19,177	-24,026	-19,456	0	-8,058	-106,083	-6,556	-82,195	-5,352,435
Clr Sum	-5,001,193	-22,498	-4,940	-8,580	-49,675	-19,177	-24,026	-19,456	0	-8,058	-106,083	-6,556	-82,195	-5,352,435
Proj Net	-286,159	8,175	25,577	27,266	-25,514	5,827	4,251	11,411	32,327	20,717	-78,575	27,729	-57,347	-284,314

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***Specifics***

***Project No: 10001715 COA ART Project \$1,404,109 \$26,092 \$1,404,109***

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

Construction Start Date 8/1/2015 Estimated Completion Date 12/31/2016

List Interim In-Service Dates

The project will consist of multiple work orders completed at various times and corresponding with City phasing plans over the next 1 - 2 years.

Project Need Justification

This is a project driven by the City of Albuquerque's request that PNM relocate distribution facilities along Central Avenue that are in conflict with the City's proposed rapid transit bus project (ART). The transit project will change lane configurations, sidewalk layouts and widths, and provide new arterial street lighting structures placed along the sidewalks. Some PNM facilities are located within the street right-of-ways and PNM must relocate these facilities under the terms of the franchise agreement.

Project Alternatives

PNM is working with the City's engineering design firm to avoid conflicts and minimize relocation work. Where conflicts cannot be mitigated, facilities must be relocated under the franchise agreement with the City. Each facility that must be relocated is evaluated on case-by-case bases assessing all available location and configuration options to arrive at least cost solutions.

Technical Aspects

PNM's design thus far is based upon the City's engineering design firm and their specifications, which are at 30% completion. Relocations of distribution equipment will involve moving wood pole structures and the associated transformers, customer owned and PNM owned power risers, and other equipment mounted to these poles. Additionally, the overhead wires attached to the poles and in some cases underground lines will be moved. Customer service drop relocations will also be required. The City of Albuquerque will pay for all customer owned risers and service drop relocations as well as any relocations of distribution facilities within easements which may need to be relocated or adjusted for the project. Right-of-way research and easement acquisitions will also be required.

Project Estimate Approach

PNM's preliminary design is based on the best available information from the City's engineering firm and may change due to final design of the City project or site specific conditions. The project cost estimate was developed by applying PNM's Compatible Units (CUs), labor database, and historical cost information for similar type project components to the preliminary design. The CUs and labor database provide material quantities and labor hour requirements for

specific standard construction components of the project. PNM's work management system combines the estimated material and labor and applies current labor rates and material costs to the quantities to calculate project costs. Other costs (which include but are not limited to permitting, right-of-way, contractor work, and environmental review) are established by either using historical costs or using estimated costs determined by the governing agency and/or a bidding process. The approximate cost break out by category is as follows: material 40%, contracting and permitting 27%, PNM construction labor 20%, right-of-way 5%, transportation & equipment 4%, and environmental 3%.

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

Cost Year 01

Project	10001715	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	213,784		20,061	25,000	24,000	28,000	0	0	310,846		
	120-Overtime-General	27,724		16,000	19,000	11,200	9,000	0	0	82,924		
	350-Material Issues-Major	250,710		45,700	30,030	51,188	30,000	0	0	407,629		
	370-Outside Services	412,944		80,000	71,000	70,637	85,000	0	0	719,581		
	374-Outside Svcs Legal	5,631		349	722	818	1,133	0	0	8,652		
	377-Outside Services-Temp Labor	0		20	40	241	447	0	0	748		
	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		16,300	18,500	3,900	8,006	0	0	46,706		
	805-Land and Land Rights	17,004		0	0	0	0	0	0	17,004		
	807-Non Refundable Contribution	0		-14,244	-38,186	-22,865	-3,450	-14,970	0	-93,715		
	829-Construction Adjustment	0		0	0	0	-1,959	-837	-443	-3,240		
	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	21,052		2,838	3,463	2,770	2,912	0	0	33,035		
	914-Pension and Benefits Load	77,173		10,797	13,174	10,539	11,078	0	0	122,760		
	915-Injuries and Damages Load	18,070		2,351	2,869	2,295	2,412	0	0	27,997		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	22,524		5,082	3,339	5,692	3,336	0	0	39,973		
	922-Minor Material Load	16,979		0	0	0	0	0	0	16,979		
	925-E and S Loads	203,679		35,967	34,003	32,854	32,928	0	0	339,430		
	926-A and G Loads	80,417		14,845	13,669	13,477	13,444	0	0	135,852		
	928-AFUDC Debt Reg	4,905		1,500	1,197	1,016	940	401	211	10,171		
	929-AFUDC - Equity Regular	2,788		1,625	1,296	1,101	1,018	434	229	8,490		
	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	1,375,382		239,192	199,116	208,864	224,245	-14,973	-4	2,231,822		
	825-Clearings	-978,262		-354,087	-284,350	-250,382	-344,674	-76,779	-93,837	-2,382,371		
	Clr Sum	-978,262		-354,087	-284,350	-250,382	-344,674	-76,779	-93,837	-2,382,371		
	Proj Net	397,120		-114,896	-85,234	-41,517	-120,429	-91,752	-93,841	-150,549		

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

Cost Year 02

Project	10001715	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	310,846	0	0	0	0	0	0	0	0	0	0	0	0	310,846
	120-Overtime-General	82,924	0	0	0	0	0	0	0	0	0	0	0	0	82,924
	350-Material Issues-Major	407,629	0	0	0	0	0	0	0	0	0	0	0	0	407,629
	370-Outside Services	719,581	0	0	0	0	0	0	0	0	0	0	0	0	719,581
	374-Outside Svcs Legal	8,652	0	0	0	0	0	0	0	0	0	0	0	0	8,652
	377-Outside Services-Temp Labor	748	0	0	0	0	0	0	0	0	0	0	0	0	748
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	46,706	0	0	0	0	0	0	0	0	0	0	0	0	46,706
	805-Land and Land Rights	17,004	0	0	0	0	0	0	0	0	0	0	0	0	17,004
807-Non Refundable Contribution		-93,715	0	0	0	0	0	0	0	0	0	0	0	0	-93,715
	829-Construction Adjustment	-3,240	0	0	0	0	0	0	0	0	0	0	0	0	-3,240
	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	33,035	0	0	0	0	0	0	0	0	0	0	0	0	33,035
	914-Pension and Benefits Load	122,760	0	0	0	0	0	0	0	0	0	0	0	0	122,760
	915-Injuries and Damages Load	27,997	0	0	0	0	0	0	0	0	0	0	0	0	27,997
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	39,973	0	0	0	0	0	0	0	0	0	0	0	0	39,973
	922-Minor Material Load	16,979	0	0	0	0	0	0	0	0	0	0	0	0	16,979
	925-E and S Loads	339,430	0	0	0	0	0	0	0	0	0	0	0	0	339,430
	926-A and G Loads	135,852	0	0	0	0	0	0	0	0	0	0	0	0	135,852
	928-AFUDC Debt Reg	10,171	0	0	0	0	0	0	0	0	0	0	0	0	10,171
	929-AFUDC - Equity Regular	8,490	0	0	0	0	0	0	0	0	0	0	0	0	8,490
	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	2,231,822	0	0	0	0	0	0	0	0	0	0	0	0	2,231,822
	825-Clearings	-2,382,371	0	0	0	0	0	0	0	0	0	0	0	0	-2,382,371
	Clr Sum	-2,382,371	0	0	0	0	0	0	0	0	0	0	0	0	-2,382,371
Proj Net		-150,549	0	0	0	0	0	0	0	0	0	0	0	0	-150,549

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

Cost Year 03

Project	10001715	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	310,846	0	0	0	0	0	0	0	0	0	0	0	0	310,846
	120-Overtime-General	82,924	0	0	0	0	0	0	0	0	0	0	0	0	82,924
	350-Material Issues-Major	407,629	0	0	0	0	0	0	0	0	0	0	0	0	407,629
	370-Outside Services	719,581	0	0	0	0	0	0	0	0	0	0	0	0	719,581
	374-Outside Svcs Legal	8,652	0	0	0	0	0	0	0	0	0	0	0	0	8,652
	377-Outside Services-Temp Labor	748	0	0	0	0	0	0	0	0	0	0	0	0	748
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	46,706	0	0	0	0	0	0	0	0	0	0	0	0	46,706
	805-Land and Land Rights	17,004	0	0	0	0	0	0	0	0	0	0	0	0	17,004
807-Non Refundable Contribution		-93,715	0	0	0	0	0	0	0	0	0	0	0	0	-93,715
	829-Construction Adjustment	-3,240	0	0	0	0	0	0	0	0	0	0	0	0	-3,240
	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	33,035	0	0	0	0	0	0	0	0	0	0	0	0	33,035
	914-Pension and Benefits Load	122,760	0	0	0	0	0	0	0	0	0	0	0	0	122,760
	915-Injuries and Damages Load	27,997	0	0	0	0	0	0	0	0	0	0	0	0	27,997
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	39,973	0	0	0	0	0	0	0	0	0	0	0	0	39,973
	922-Minor Material Load	16,979	0	0	0	0	0	0	0	0	0	0	0	0	16,979
	925-E and S Loads	339,430	0	0	0	0	0	0	0	0	0	0	0	0	339,430
	926-A and G Loads	135,852	0	0	0	0	0	0	0	0	0	0	0	0	135,852
	928-AFUDC Debt Reg	10,171	0	0	0	0	0	0	0	0	0	0	0	0	10,171
	929-AFUDC - Equity Regular	8,490	0	0	0	0	0	0	0	0	0	0	0	0	8,490
	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	2,231,822	0	0	0	0	0	0	0	0	0	0	0	0	2,231,822
	825-Clearings	-2,382,371	0	0	0	0	0	0	0	0	0	0	0	0	-2,382,371
	Clr Sum	-2,382,371	0	0	0	0	0	0	0	0	0	0	0	0	-2,382,371
Proj Net		-150,549	0	0	0	0	0	0	0	0	0	0	0	0	-150,549

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***Project No: 10002316 Bird Guard Reliability \$3,223,811 (\$106,842) \$3,223,811***

Company: 001-Electric Services  
Location: 100 Distribution

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date

List Interim In-Service Dates

Project consists of many individual work orders packets which are placed in service at various times throughout the year.

Project Need Justification

This project provides for the installation of covers and guarding materials to prevent wildlife from making contact with energized distribution equipment. Since birds are one of the top ten causes of outages, this will help reduce outages and increase reliability.

Project Alternatives

Protective covers for energized equipment is often the most economical means of preventing electrocution of birds and other animals that leads to outages, especially in retrofit applications. Other means include changing pole construction type or using broader spanning cross arms, however these are generally more expensive options and can also include the need to acquiring additional right-of-way easements which can be expensive or not possible. Wider cross arms also do not eliminate the need for equipment covers.

Technical Aspects

This project provides for the installation of protective covers over insulators, wires and other equipment in areas prone to outages caused by bird or small animal electrocution.

Project Estimate Approach

This project spend forecast is prepared to closely follow the spend on the PURE projects. Most of the bird guarding is performed at the same time and on the same structures as the PURE work. The spend is typically about 44% of the PURE spend.

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

Cost Year 01

Project	10002316	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	34,899			4,188	4,188	4,188	7,794	2,477	0	57,735		
120-Overtime-General	81,841			6,450	6,450	6,450	12,002	3,814	0	117,006		
350-Material Issues-Major	51,411			3,229	3,229	3,229	6,009	1,910	0	69,019		
370-Outside Services	216,181			25,755	25,755	25,755	109,474	76,779	61,547	541,246		
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			3,570	3,570	3,570	6,643	2,111	0	19,464		
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	9,617			837	837	837	1,558	495	0	14,182		
914-Pension and Benefits Load	36,587			3,185	3,185	3,185	5,927	1,864	0	53,953		
915-Injuries and Damages Load	7,968			694	694	694	1,291	410	0	11,749		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	11,028			359	359	359	668	212	0	12,986		
922-Minor Material Load	3,026			0	0	0	0	0	0	3,026		
925-E and S Loads	88,458			8,863	8,863	8,863	27,879	16,628	11,386	170,940		
926-A and G Loads	32,764			3,594	3,594	3,594	11,808	7,246	5,121	67,719		
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	573,779			60,724	60,724	60,724	191,054	113,967	78,054	1,139,026		
825-Clearings	-566,396			-52,652	0	0	-182,577	0	-337,139	-1,138,765		
Clr Sum	-566,396			-52,652	0	0	-182,577	0	-337,139	-1,138,765		
Proj Net	7,383			8,071	60,724	60,724	8,477	113,967	-259,085	262		

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

Cost Year 02

Project	10002316	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	57,735	4,823	3,112	4,710	8,508	10,850	8,061	1,905	1,629	1,354	2,363	2,365	3,331	110,746
120-Overtime-General	117,006	1,620	181	31,276	14,588	8,163	3,408	0	0	0	0	0	0	176,241
350-Material Issues-Major	69,019	1,137	16,007	10,388	20,742	9,571	9,862	5,488	9,934	1,704	8,934	7,756	6,303	176,846
370-Outside Services	541,246	61,869	56,777	90,805	114,758	176,087	93,813	95,250	62,031	42,332	117,308	36,722	27,954	1,516,952
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	19,464	2,103	993	8,000	5,998	6,249	3,177	0	0	0	0	0	0	45,985
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	14,182	505	258	2,821	1,811	1,491	899	149	128	106	185	185	261	22,982
914-Pension and Benefits Load	53,953	1,758	899	9,821	6,303	5,189	3,130	520	445	370	645	645	909	84,585
915-Injuries and Damages Load	11,749	401	205	2,238	1,437	1,183	713	118	101	84	147	147	207	18,731
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	12,986	197	2,769	1,797	3,588	1,656	1,706	949	1,719	295	1,546	1,342	1,090	31,640
922-Minor Material Load	3,026	0	0	0	0	0	0	0	0	0	0	0	0	3,026
925-E and S Loads	170,940	14,250	15,059	30,731	33,436	42,006	23,628	19,859	14,260	8,822	24,880	9,182	7,481	414,533
926-A and G Loads	67,719	4,808	5,179	9,756	11,061	14,174	7,951	6,898	4,946	3,050	8,642	3,148	2,526	149,858
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	1,139,026	93,471	101,439	202,343	222,228	276,617	156,349	131,137	95,192	58,117	164,650	61,493	50,063	2,752,126
825-Clearings	-1,138,765	-26,186	-41,237	-73,458	-103,212	-137,893	-141,584	-139,495	-130,634	-116,131	-125,835	-112,966	-351,350	-2,638,746
Clr Sum	-1,138,765	-26,186	-41,237	-73,458	-103,212	-137,893	-141,584	-139,495	-130,634	-116,131	-125,835	-112,966	-351,350	-2,638,746
Proj Net	262	67,285	60,202	128,885	119,016	138,724	14,765	-8,358	-35,442	-58,014	38,815	-51,474	-301,286	113,380

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

Cost Year 03

Project	10002316	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	110,746	3,313	2,137	3,233	5,842	7,450	5,536	1,306	1,119	929	1,623	1,625	2,288	147,147
120-Overtime-General	176,241	1,112	125	21,477	10,018	5,607	2,339	0	0	0	0	0	0	216,920
350-Material Issues-Major	176,846	780	10,994	7,134	14,243	6,573	6,773	3,770	6,822	1,170	6,136	5,327	4,329	250,896
370-Outside Services	1,516,952	15,278	66,198	62,356	78,804	120,920	64,422	65,410	42,595	29,069	80,555	25,217	19,195	2,186,971
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	45,985	1,445	682	5,493	4,119	4,291	2,182	0	0	0	0	0	0	64,197
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	22,982	347	177	1,937	1,243	1,024	617	102	88	73	127	127	179	29,025
914-Pension and Benefits Load	84,585	1,208	617	6,744	4,328	3,563	2,149	357	305	253	443	443	624	105,620
915-Injuries and Damages Load	18,731	275	141	1,537	986	812	490	81	70	58	101	101	142	23,525
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	31,640	135	1,902	1,234	2,464	1,137	1,172	652	1,180	202	1,061	922	749	44,451
922-Minor Material Load	3,026	0	0	0	0	0	0	0	0	0	0	0	0	3,026
925-E and S Loads	414,533	4,562	15,565	21,103	22,960	28,846	16,225	13,637	9,792	6,058	17,085	6,305	5,138	581,810
926-A and G Loads	149,858	1,474	5,385	6,699	7,595	9,733	5,460	4,737	3,396	2,094	5,935	2,162	1,735	206,263
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	2,752,126	29,928	103,923	138,948	152,604	189,956	107,365	90,052	65,366	39,905	113,066	42,230	34,380	3,859,851
825-Clearings	-2,638,746	-36,101	-49,666	-67,522	-84,539	-105,622	-105,971	-102,787	-95,303	-84,223	-89,992	-80,440	-249,297	-3,790,208
Clr Sum	-2,638,746	-36,101	-49,666	-67,522	-84,539	-105,622	-105,971	-102,787	-95,303	-84,223	-89,992	-80,440	-249,297	-3,790,208
Proj Net	113,380	-6,173	54,257	71,426	68,066	84,334	1,394	-12,735	-29,937	-44,318	23,074	-38,210	-214,917	69,643

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**Project No: 10002516 Pole Grounds      \$1,438,800 (\$256,692) \$1,438,800**

Company:      001-Electric Services  
Location:      100 Distribution

Project Information

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

This project consists of many individual work orders which are placed in service at various times throughout the year.

Project Need Justification

Significant instances of copper theft in recent years has led to the need for repair and replacement of copper grounds attached to distribution poles. Grounding replacements are necessary to ensure a safe and reliable electric system.

Project Alternatives

There are no other alternatives to this project other than to do nothing. This project is preferred to prevent theft, since copper is a prime target for metal thieves that sought after the previously installed pole grounds made of copper wire. However, the new design of copper clad steel wire, which has less recyclable value, should be used as the replacement pole ground for stolen copper ground wire.

Technical Aspects

Pole grounds are required on all poles with equipment attached, such as transformers, capacitors, risers, and switches. At a minimum, four grounds per mile of overhead line are required when equipment is not attached to poles. Pole grounds are wires attached to equipment on the pole and/or attached to the neutral conductor running the length of the pole. This is also attached to a ground rod placed at the base of the pole. The #4 copper clad steel wire is used for general pole grounding and 2/0 copper clad steel wire is used for grounding poles with pole mounted switches or backbone conductor risers attached to the poles.

Project Estimate Approach

This project spend forecast is prepared to closely follow the spend on the PURE projects (10001707). Most of the pole ground replacement is performed at the same time and on many of the same structures as the PURE work. The spend is typically about 21% of the PURE spend. In some cases forecast spend may have been modified to account for one-off anomalies and/or calculated annual spend may be adjusted if greatly inconsistent with historical spend or if known increases are warranted.

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

Cost Year 01

Project	10002516	Year	2016	Jul	Aug	Sep	Oct	Nov	Dec	Total
Cost_Type		Bal 6/30/16								
110-Straight Time-General		11,017		534	882	752	325	595	587	14,693
120-Overtime-General		6,654		1,418	1,248	1,434	1,391	3,480	4,991	20,615
350-Material Issues-Major		5,380		741	7,201	4,686	-3,731	658	2,068	17,003
370-Outside Services		76,188		-344	2,573	2,480	6,141	3,200	3,673	93,911
374-Outside Svcs Legal		0		0	0	0	0	0	0	-1
377-Outside Services-Temp Labor		0		0	2	0	0	0	0	2
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		391	336	633	416	872	811	3,458
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		1,526		154	168	172	135	321	439	2,915
914-Pension and Benefits Load		5,807		584	638	654	514	1,220	1,670	11,088
915-Injuries and Damages Load		1,265		127	139	143	112	266	364	2,415
918-San Juan AR-Labor		0		0	0	0	0	0	0	0
921-Stores / Purchasing Load		2,729		82	801	521	-415	73	230	4,021
922-Minor Material Load		307		0	0	0	0	0	0	307
925-E and S Loads		24,223		667	2,439	2,026	981	1,963	2,702	35,002
926-A and G Loads		8,430		228	1,018	831	378	733	1,009	12,627
928-AFUDC Debt Reg		18		0	0	0	0	0	0	18
929-AFUDC - Equity Regular		12		0	0	0	0	0	0	12
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		143,555		4,584	17,444	14,332	6,247	13,380	18,544	218,085
825-Clearings		-118,299		0	0	0	-37,327	0	-69,251	-224,877
Clr Sum		-118,299		0	0	0	-37,327	0	-69,251	-224,877
Proj Net		25,257		4,584	17,444	14,332	-31,080	13,380	-50,707	-6,792

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

Cost Year 02

Project	10002516	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	14,693	2,922	2,922	2,922	2,922	7,186	7,781	5,009	8,262	7,044	3,048	5,579	5,503	75,792
120-Overtime-General	20,615	2,175	2,175	2,175	2,175	6,511	9,654	13,284	11,694	13,438	13,036	32,606	46,770	176,308
350-Material Issues-Major	17,003	3,971	3,971	3,971	3,971	21,472	13,356	6,947	67,473	43,909	-34,961	6,164	19,376	176,621
370-Outside Services	93,911	10,390	10,390	10,390	10,390	11,565	31,085	-3,220	24,109	23,236	57,543	29,982	34,418	344,188
374-Outside Svcs Legal	-1	0	0	-3	0	-1	-2	0	-2	-2	-4	-2	-2	-18
377-Outside Services-Temp Labor	2	0	0	87	0	0	50	2	26	0	0	0	0	167
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	3,458	0	0	3,716	2,910	4,463	5,539	3,664	3,145	5,936	3,896	8,172	7,596	52,496
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	2,915	400	400	400	400	1,074	1,367	1,434	1,565	1,606	1,261	2,994	4,098	19,911
914-Pension and Benefits Load	11,088	1,391	1,391	1,391	1,391	3,738	4,758	4,992	5,446	5,589	4,389	10,421	14,265	70,250
915-Injuries and Damages Load	2,415	317	317	317	317	852	1,084	1,138	1,241	1,274	1,000	2,375	3,251	15,899
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	4,021	687	687	687	687	3,715	2,311	1,202	11,673	7,596	-6,048	1,066	3,352	31,635
922-Minor Material Load	307	0	0	0	0	0	0	0	0	0	0	0	0	307
925-E and S Loads	35,002	4,140	4,140	4,870	4,699	10,917	14,337	6,384	23,608	19,590	9,448	18,872	25,973	181,981
926-A and G Loads	12,627	1,308	1,308	1,563	1,503	3,440	4,534	1,726	7,708	6,287	2,860	5,544	7,638	58,046
928-AFUDC Debt Reg	18	0	0	0	0	0	0	0	0	0	0	0	0	18
929-AFUDC - Equity Regular	12	0	0	0	0	0	0	0	0	0	0	0	0	12
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	218,085	27,699	27,699	32,485	31,364	74,932	95,855	42,562	165,948	135,504	55,469	123,773	172,238	1,203,614
825-Clearings	-224,877	0	0	-10,873	-29,173	-13,161	-33,699	-29,033	-34,167	-71,392	-89,747	-50,933	-243,187	-830,241
Clr Sum	-224,877	0	0	-10,873	-29,173	-13,161	-33,699	-29,033	-34,167	-71,392	-89,747	-50,933	-243,187	-830,241
Proj Net	-6,792	27,699	27,699	21,612	2,191	61,771	62,156	13,529	131,781	64,112	-34,278	72,840	-70,949	373,372

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

Cost Year 03

Project	10002516	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	75,792	2,979	2,178	4,058	2,174	3,834	4,151	2,671	4,408	3,757	1,625	2,977	2,935	113,538
120-Overtime-General	176,308	11,842	3,581	2,456	2,183	3,474	5,148	7,086	6,238	7,168	6,953	17,391	24,947	274,775
350-Material Issues-Major	176,621	1,989	6,738	6,684	1,791	11,454	7,126	3,705	35,990	23,422	-18,650	3,290	10,333	270,493
370-Outside Services	344,188	5,029	13,296	20,363	1,807	6,168	16,581	-1,718	12,860	12,395	30,695	15,993	18,358	496,016
374-Outside Svcs Legal	-18	0	-1	-2	0	0	-2	0	-1	-1	-2	-2	-2	-33
377-Outside Services-Temp Labor	167	23	12	37	0	0	23	1	12	0	0	0	0	276
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	52,496	3,049	1,760	1,982	1,553	2,381	2,953	1,954	1,676	3,166	2,078	4,357	4,051	83,457
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	19,911	1,162	452	511	342	573	729	765	835	856	672	1,597	2,186	30,590
914-Pension and Benefits Load	70,250	4,045	1,572	1,778	1,189	1,994	2,538	2,663	2,905	2,981	2,341	5,558	7,609	107,423
915-Injuries and Damages Load	15,899	922	358	405	271	455	578	607	662	679	534	1,267	1,734	24,371
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	31,635	344	1,166	1,156	310	1,982	1,233	641	6,226	4,052	-3,226	569	1,788	47,875
922-Minor Material Load	307	0	0	0	0	0	0	0	0	0	0	0	0	307
925-E and S Loads	181,981	5,960	5,750	7,348	2,171	5,824	7,647	3,405	12,592	10,449	5,039	10,066	13,853	272,084
926-A and G Loads	58,046	1,674	1,852	2,391	639	1,835	2,418	921	4,111	3,354	1,525	2,957	4,074	85,797
928-AFUDC Debt Reg	18	0	0	0	0	0	0	0	0	0	0	0	0	18
929-AFUDC - Equity Regular	12	0	0	0	0	0	0	0	0	0	0	0	0	12
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	1,203,614	39,017	38,715	49,168	14,428	39,974	51,123	22,700	88,515	72,278	29,583	66,019	91,864	1,806,998
825-Clearings	-830,241	-40,264	-63,330	-49,917	-99,053	-26,376	-47,475	-36,499	-32,228	-59,147	-71,214	-37,149	-164,203	-1,557,098
Clr Sum	-830,241	-40,264	-63,330	-49,917	-99,053	-26,376	-47,475	-36,499	-32,228	-59,147	-71,214	-37,149	-164,203	-1,557,098
Proj Net	373,372	-1,247	-24,616	-749	-84,625	13,597	3,647	-13,799	56,287	13,131	-41,631	28,870	-72,339	249,900

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***Project No: 15001617 150 Lordsburg Distribution System Rebuild***

Company: 034-PNM TNMPNM Distribution

Location: 150 Distribution

**Project Information**

Construction Start Date 1/2/2017

Estimated Completion Date

List Interim In-Service Dates

Multiple work orders to be built and cleared 3- 2017, 6-2017, 9-2017, 12-2017

Project Need Justification

This project is driven by the need to replace deteriorated Distribution line equipment discovered during Operation line patrols and Engineering field visits. The work is required to maintain and increase customer service reliability and make for safer operation of Lordsburg Distribution circuits 12318 and 12100.

Project Alternatives

The Alternative to this project would be to do nothing which would allow for increased customer outage time with the failure of the deteriorated distribution line equipment. As it is 50 mile trip for construction crews to Lordsburg outage time is increased and with possible replacement after hours will increase cost.

Technical Aspects

This project is for the replacement of deteriorated line equipment through normal aging on Lordsburg distribution circuits 12318 and 12100. Work to be done as follows:-Replace poles and deteriorated line equipment on 5 mile section of circuit Lord 12100.-Rebuild distribution three phase and single phase lines located inside Lordsburg in alleys serving residential customers, designing to PNM Standards with removal and installation of wire, poles, pole hardware including insulators, cross arms, cut outs, anchor assemblies, overhead and protection equipment.

Project Estimate Approach

The estimate for this project includes the replacement of poles and deteriorated line equipment in an ongoing process. Using historical spend on individual projects done from 2015 to 2016, crew hours and material cost were used to determine the amount of work that could be accomplished in the given time for 2017. Additionally, labor and non-labor cost components were escalated using annual expected cost increase percentages as supplied by PNM Budget Office.

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

Cost Year 01

Project	15001617	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	15001617	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	1,500	1,500	1,500	2,500	4,500	2,500	4,500	2,500	4,500	2,500	2,500	0	30,500
120-Overtime-General	0	0	0	0	150	150	150	150	150	150	150	0	0	1,050
350-Material Issues-Major	0	0	0	25,000	35,000	45,000	35,000	45,000	35,000	45,000	34,000	1,000	0	300,000
370-Outside Services	0	0	0	30,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	13,300	0	463,300
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	6,500	4,500	8,500	4,500	12,300	8,000	6,500	5,050	0	55,850
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	118	118	118	208	365	208	365	208	365	208	196	0	2,474
914-Pension and Benefits Load	0	409	409	409	723	1,269	723	1,269	723	1,269	723	682	0	8,610
915-Injuries and Damages Load	0	93	93	93	165	289	165	289	165	289	165	156	0	1,962
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	4,325	6,055	7,785	6,055	7,785	6,055	7,785	5,882	173	0	51,900
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	407	407	10,967	20,207	22,286	20,591	22,286	21,321	22,958	20,015	4,394	0	165,839
926-A and G Loads	0	101	101	3,797	6,999	7,671	7,133	7,671	7,389	7,906	6,932	1,468	0	57,167
928-AFUDC Debt Reg	0	3	10	111	307	641	945	768	1,065	1,342	957	665	389	7,203
929-AFUDC - Equity Regular	0	4	13	146	403	841	1,239	1,007	1,397	1,760	1,255	873	510	9,448
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	2,636	2,650	76,466	139,217	155,297	143,209	155,589	148,273	161,324	139,286	30,457	899	1,155,303
825-Clearings	0	-264	-502	-32,395	-18,781	-32,432	-217,551	-37,314	-48,410	-298,506	-197,007	-122,059	-150,082	-1,155,303
Clr Sum	0	-264	-502	-32,395	-18,781	-32,432	-217,551	-37,314	-48,410	-298,506	-197,007	-122,059	-150,082	-1,155,303
Proj Net	0	2,372	2,148	44,071	120,436	122,864	-74,342	118,275	99,863	-137,182	-57,720	-91,602	-149,184	0

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

Cost Year 03

Project	15001617	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	30,500	0	0	0	0	0	0	0	0	0	0	0	0	30,500
	120-Overtime-General	1,050	0	0	0	0	0	0	0	0	0	0	0	0	1,050
	350-Material Issues-Major	300,000	0	0	0	0	0	0	0	0	0	0	0	0	300,000
	370-Outside Services	463,300	0	0	0	0	0	0	0	0	0	0	0	0	463,300
	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	55,850	0	0	0	0	0	0	0	0	0	0	0	0	55,850
	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	2,474	0	0	0	0	0	0	0	0	0	0	0	0	2,474
	914-Pension and Benefits Load	8,610	0	0	0	0	0	0	0	0	0	0	0	0	8,610
	915-Injuries and Damages Load	1,962	0	0	0	0	0	0	0	0	0	0	0	0	1,962
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	51,900	0	0	0	0	0	0	0	0	0	0	0	0	51,900
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	165,839	0	0	0	0	0	0	0	0	0	0	0	0	165,839
	926-A and G Loads	57,167	0	0	0	0	0	0	0	0	0	0	0	0	57,167
	928-AFUDC Debt Reg	7,203	0	0	0	0	0	0	0	0	0	0	0	0	7,203
	929-AFUDC - Equity Regular	9,448	0	0	0	0	0	0	0	0	0	0	0	0	9,448
	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	1,155,303	0	0	0	0	0	0	0	0	0	0	0	0	1,155,303
	825-Clearings	-1,155,303	0	0	0	0	0	0	0	0	0	0	0	0	-1,155,303
	Clr Sum	-1,155,303	0	0	0	0	0	0	0	0	0	0	0	0	-1,155,303
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Project No: 15501613 Tyrone Circuit 12-395 Reconductor**

Company: 034-PNM TNMPNM Distribution  
Location: 155 Distribution

Project Information

<u>Construction Start Date</u>	3/1/2014	<u>Estimated Completion Date</u>	6/30/2018
<u>List Interim In-Service Dates</u>	NA		

Project Need Justification

The Tyrone Substation provides service to the Tyrone town site, portions of the Freeport McMoran mining operations, and the Woodward Wells (the predominant source of municipal water for the Town of Silver City). During single contingency for loss of service of the Tyrone Substation, backup is provided through the Tyrone Circuit 12-395 interconnection with Silver City feeder 12-18. The existing conductor is #6 copper and #4 aluminum-conductor steel-reinforced wire (ACSR). Reconductoring Tyrone circuit 12-395 to the larger conductor (4/0 ACSR) will increase capacity and improve the voltage profile. Distribution Planning has this project in the 10 year plan for 2017. The 10 year plan also addresses the incremental load growth of Silver City circuit 12-18. Load growth projections indicate that in four years, Tyrone Circuit 12-395 will be needed to backup circuit 12-18 in the Silver City Substation.

Project Alternatives

The alternatives considered were: 1) build a new distribution line to be located within a new route location and 2) replace the smaller conductor with a larger conductor on the existing distribution line. Given the distribution system configuration, the first alternative would result in higher construction cost for new line and require additional expenditure to reconfigure the distribution feed points to existing customers. This would have no real benefit. Therefore, it was determined that second alternative was the most cost effective solution to supply back up power for the loss of Tyrone substation.

Technical Aspects

This project requires the reconductor of 3.7 miles of Tyrone Circuit 12395 from #4 ACSR to 4/0 ACSR from the Tyrone Substation to step up transformer bank Pole #TF1B108. In addition, it was determined that the 69kv transmission line has clearance issues which will require additional work to replace existing transmission poles with taller ones.

Project Estimate Approach

PNM's preliminary design is based on information taken from Geographic Information System (GIS) Mapping System, data received from Aerial Mapping and fieldwork. Cost estimates for the project were built by using PNM's Compatible Units (CUs) and labor database to determine the material quantities required. The labor hours were determined by identifying the construction components and applying the specific standard construction values to each component of project. PNM's work management system combines the estimated material and labor, then applies current labor rates and material costs to the quantities to calculate project costs. Other costs (including but not limited to, permitting, right-of-way, contractor work, and environmental review) are established by using historical costs or using estimated costs determined by the governing agency and/or a bidding process.

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

Cost Year 01

Project	15501613	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	15501613	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	500	500	0	3,000	3,000	5,000	5,000	4,000	5,000	3,000	30,000
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	50,000	25,000	25,000	25,000	50,000	15,000	6,500	196,500
370-Outside Services	0	0	0	0	0	0	0	50,000	29	50,000	75,000	75,000	75,000	325,029
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	78	39	39	0	235	235	392	392	314	392	235	2,352
914-Pension and Benefits Load	0	0	273	136	136	0	819	819	1,365	1,365	1,092	1,365	819	8,187
915-Injuries and Damages Load	0	0	62	31	31	0	187	187	311	311	249	311	187	1,866
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	8,650	4,325	4,325	4,325	8,650	2,595	1,125	33,995
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	271	136	136	0	10,414	15,214	6,163	15,757	25,086	18,637	16,462	108,275
926-A and G Loads	0	0	67	34	34	0	3,562	5,242	2,018	5,376	8,669	6,384	5,678	37,063
928-AFUDC Debt Reg	0	0	2	6	8	9	109	346	542	743	1,113	1,508	1,822	6,209
929-AFUDC - Equity Regular	0	0	3	8	11	12	144	454	710	975	1,460	1,978	2,390	8,144
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	1,757	889	895	21	77,119	104,821	45,854	109,244	175,632	128,170	113,217	757,619
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-606,095	-606,095
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-606,095	-606,095
Proj Net	0	0	1,757	889	895	21	77,119	104,821	45,854	109,244	175,632	128,170	-492,879	151,524

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

Cost Year 03

Project	15501613	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	30,000	4,000	4,000	3,500	0	0	0	0	0	0	0	0	0	41,500
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	196,500	20,000	16,500	1,120	0	0	0	0	0	0	0	0	0	234,120
370-Outside Services	325,029	65,000	65,000	50,000	0	0	0	0	0	0	0	0	0	505,029
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	2,352	314	314	274	0	0	0	0	0	0	0	0	0	3,254
914-Pension and Benefits Load	8,187	1,092	1,092	955	0	0	0	0	0	0	0	0	0	11,325
915-Injuries and Damages Load	1,866	249	249	218	0	0	0	0	0	0	0	0	0	2,581
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	33,995	3,460	2,855	194	0	0	0	0	0	0	0	0	0	40,503
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	108,275	17,406	16,734	10,765	0	0	0	0	0	0	0	0	0	153,179
926-A and G Loads	37,063	5,981	5,746	3,670	0	0	0	0	0	0	0	0	0	52,460
928-AFUDC Debt Reg	6,209	549	852	1,096	1,193	1,199	1,205	0	0	0	0	0	0	12,304
929-AFUDC - Equity Regular	8,144	495	768	988	1,076	1,081	1,086	0	0	0	0	0	0	13,638
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	757,619	118,545	114,108	72,780	2,269	2,280	2,292	0	0	0	0	0	0	1,069,893
825-Clearings	-606,095	0	0	0	0	0	-463,797	0	0	0	0	0	0	-1,069,893
Clr Sum	-606,095	0	0	0	0	0	-463,797	0	0	0	0	0	0	-1,069,893
Proj Net	151,524	118,545	114,108	72,780	2,269	2,280	-461,505	0	0	0	0	0	0	0

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***Project No: 20001817 Deming 150 Distribution Pole Replacement***

Company: 001-Electric Services  
Location: 200 Distribution

Project Information

Construction Start Date                      3/6/2017                      Estimated Completion Date

List Interim In-Service Dates

This project consists of individual work orders to be placed in service by quarterly timing.    Interim dates:    06-17 , 09-17 & 12-17

Project Need Justification

This project is driven by the need to replace deteriorated distribution line equipment discovered during Operation's line patrols and Engineering's field visits. The work is necessary to increase service reliability and to ensure distribution circuits Gold 11 and Hondale 11 operate safely.

Project Alternatives

The alternative to this project would be to do nothing which would further increase outages, requiring crews to replace deteriorated line equipment during storm conditions and after-hours, which also raises the overall cost of replacement.

Technical Aspects

This project is for the replacement of deteriorated line equipment as a result of normal aging on distribution circuits Gold 11 and Hondale 11 and includes a redesign to current PNM standards. This work will be done on an approximately 1.5 mile section of each circuit and will include the removal and installation of wire, poles, pole hardware, insulators, cross arms, cut outs, anchor assemblies, overhead and protection equipment.

Project Estimate Approach

The estimates for this project are based on similar project spends that occurred in 2016.

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

Cost Year 01

Project	20001817	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	20001817	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	1,500	1,500	1,500	2,500	4,500	3,500	4,500	2,500	4,500	3,500	2,500	0	32,500
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	25,000	35,000	45,000	35,000	45,000	35,000	45,000	33,800	1,000	0	299,800
370-Outside Services	0	0	0	30,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	13,300	0	463,300
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	6,500	4,500	8,500	4,500	12,300	8,000	6,500	5,025	0	55,825
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	118	118	118	196	353	274	353	196	353	274	196	0	2,548
914-Pension and Benefits Load	0	409	409	409	682	1,228	955	1,228	682	1,228	955	682	0	8,869
915-Injuries and Damages Load	0	93	93	93	156	280	218	280	156	280	218	156	0	2,022
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	4,325	6,055	7,785	6,055	7,785	6,055	7,785	5,847	173	0	51,865
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	407	407	10,967	20,166	22,245	20,822	22,245	21,280	22,917	20,207	4,389	0	166,054
926-A and G Loads	0	101	101	3,797	6,989	7,661	7,190	7,661	7,379	7,896	6,975	1,467	0	57,216
928-AFUDC Debt Reg	0	3	10	111	307	640	945	769	1,066	1,341	958	667	390	7,207
929-AFUDC - Equity Regular	0	4	13	146	402	840	1,240	1,008	1,398	1,760	1,257	875	511	9,453
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	2,636	2,650	76,466	138,953	155,032	144,700	155,328	148,011	161,060	140,492	30,429	901	1,156,658
825-Clearings	0	-264	-502	-32,395	-18,755	-32,382	-218,070	-37,340	-48,407	-298,361	-197,484	-122,309	-150,390	-1,156,658
Clr Sum	0	-264	-502	-32,395	-18,755	-32,382	-218,070	-37,340	-48,407	-298,361	-197,484	-122,309	-150,390	-1,156,658
Proj Net	0	2,372	2,148	44,071	120,199	122,649	-73,370	117,989	99,604	-137,301	-56,992	-91,880	-149,489	0

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

Cost Year 03

Project	20001817	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	32,500	0	0	0	0	0	0	0	0	0	0	0	0	32,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	299,800	0	0	0	0	0	0	0	0	0	0	0	0	299,800
	370-Outside Services	463,300	0	0	0	0	0	0	0	0	0	0	0	0	463,300
	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	55,825	0	0	0	0	0	0	0	0	0	0	0	0	55,825
	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	2,548	0	0	0	0	0	0	0	0	0	0	0	0	2,548
	914-Pension and Benefits Load	8,869	0	0	0	0	0	0	0	0	0	0	0	0	8,869
	915-Injuries and Damages Load	2,022	0	0	0	0	0	0	0	0	0	0	0	0	2,022
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	51,865	0	0	0	0	0	0	0	0	0	0	0	0	51,865
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	166,054	0	0	0	0	0	0	0	0	0	0	0	0	166,054
	926-A and G Loads	57,216	0	0	0	0	0	0	0	0	0	0	0	0	57,216
	928-AFUDC Debt Reg	7,207	0	0	0	0	0	0	0	0	0	0	0	0	7,207
	929-AFUDC - Equity Regular	9,453	0	0	0	0	0	0	0	0	0	0	0	0	9,453
	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	1,156,658	0	0	0	0	0	0	0	0	0	0	0	0	1,156,658
	825-Clearings	-1,156,658	0	0	0	0	0	0	0	0	0	0	0	0	-1,156,658
	Clr Sum	-1,156,658	0	0	0	0	0	0	0	0	0	0	0	0	-1,156,658
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 41001617 Distribution Looping in SF***

Company: 001-Electric Services  
Location: 410 Distribution

Project Information

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

List Interim In-Service Dates

Project Need Justification

In the past, several areas in Santa Fe, have experienced extended outages due to lack of back-up or redundant systems. The result is an outage that lasts until the fault can be identified and repaired. This project includes the installation of underground cable to create a redundant circuit on several long radials in the Santa Fe area, which would allow for a more timely restoration. PNM is obligated to provide reliable service with reasonable outage response time for its customers and this project further reaches that goal. The costs for this project includes internal labor, external labor, materials, and equipment.

Project Alternatives

There are no alternatives available. If nothing is done and the cable is not placed, outages on the radial systems will continue until the cable is repaired.

Technical Aspects

Installing the redundant cable would require the installation of a new cable either excavated or bored in from the last transformer on the radial back to the electrical source.

Project Estimate Approach

Historical emergent cable replacement costs for areas that have been identified as needing redundant systems. The addition of redundant looping costs differ only in that cable is not abandoned. This project includes costs for outside services which includes installation of new cable by either boring or trenching. The project also includes company labor for items such as; engineering, construction coordination, switching, and cable termination. The breakdown of cost by categories is approximately as follows: outside services (59%), company labor (22%), materials (12%), and company transportation (7%). This breakdown can fluctuate depending on the site conditions and the type of cable being replaced.

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

Cost Year 01

Project	41001617	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	41001617	Year	2017											
Cost_Type	BegBai	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	0	0	5,000	5,000	5,500	5,500	5,000	5,000	5,000	5,000	5,000	5,000	51,000
120-Overtime-General	0	0	0	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	0	8,000
350-Material Issues-Major	0	25,000	25,000	25,000	25,000	25,000	25,000	25,000	24,000	23,500	0	0	0	222,500
370-Outside Services	0	23,745	23,745	32,321	32,321	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	432,132
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	470	470	510	510	470	470	470	470	392	392	4,626
914-Pension and Benefits Load	0	0	0	1,637	1,637	1,774	1,774	1,637	1,637	1,637	1,637	1,365	1,365	16,101
915-Injuries and Damages Load	0	0	0	373	373	404	404	373	373	373	373	311	311	3,670
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	4,325	4,325	4,325	4,325	4,325	4,325	4,325	4,152	4,066	0	0	0	38,493
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	9,359	9,359	12,634	12,634	14,244	14,244	14,108	13,916	13,820	9,308	9,037	9,037	141,701
926-A and G Loads	0	3,276	3,276	4,255	4,255	4,805	4,805	4,771	4,704	4,670	3,091	3,024	3,024	47,956
928-AFUDC Debt Reg	0	86	257	458	688	932	1,192	1,453	1,394	1,344	1,260	1,155	1,068	11,287
929-AFUDC - Equity Regular	0	112	338	601	902	1,223	1,564	1,905	1,829	1,764	1,653	1,514	1,401	14,805
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	65,903	66,300	88,075	88,606	99,717	100,318	100,043	98,476	97,645	63,793	61,798	61,597	992,270
825-Clearings	0	0	0	0	0	0	0	-121,792	-117,129	-113,232	-103,344	-95,035	-441,737	-992,270
Clr Sum	0	0	0	0	0	0	0	-121,792	-117,129	-113,232	-103,344	-95,035	-441,737	-992,270
Proj Net	0	65,903	66,300	88,075	88,606	99,717	100,318	-21,749	-18,653	-15,587	-39,551	-33,238	-380,140	0

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

Cost Year 03

Project	41001617	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	51,000	0	0	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	0	96,000
120-Overtime-General	8,000	0	0	1,000	1,000	1,000	2,000	2,000	1,500	1,000	1,000	1,000	0	19,500
350-Material Issues-Major	222,500	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	0	0	472,500
370-Outside Services	432,132	0	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	10,500	852,632
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	4,626	0	0	470	470	470	549	549	510	470	470	470	0	9,055
914-Pension and Benefits Load	16,101	0	0	1,637	1,637	1,637	1,910	1,910	1,774	1,637	1,637	1,637	0	31,520
915-Injuries and Damages Load	3,670	0	0	373	373	373	435	435	404	373	373	373	0	7,184
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	38,493	4,325	4,325	4,325	4,325	4,325	4,325	4,325	4,325	4,325	4,325	0	0	81,743
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	141,701	4,800	12,672	14,300	14,300	14,300	14,572	14,572	14,436	14,300	14,300	9,500	2,016	285,771
926-A and G Loads	47,956	1,680	4,435	4,838	4,838	4,838	4,906	4,906	4,872	4,838	4,838	3,158	706	96,810
928-AFUDC Debt Reg	11,287	47	199	379	535	660	763	848	915	967	1,007	993	881	19,480
929-AFUDC - Equity Regular	14,805	42	179	341	482	595	688	764	825	871	908	895	794	22,190
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	992,270	35,894	87,810	98,665	98,962	99,200	101,148	101,309	100,560	99,783	99,860	64,029	14,896	1,994,386
825-Clearings	-992,270	-3,589	-24,023	-38,951	-50,953	-60,603	-68,712	-75,231	-80,297	-84,194	-87,327	-82,668	-345,567	-1,994,386
Clr Sum	-992,270	-3,589	-24,023	-38,951	-50,953	-60,603	-68,712	-75,231	-80,297	-84,194	-87,327	-82,668	-345,567	-1,994,386
Proj Net	0	32,305	63,787	59,714	48,008	38,597	32,436	26,078	20,263	15,589	12,533	-18,639	-330,671	0

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***Project No: 41001715 Mejia 14 Fin Del Sinder Rd Line Extension***

Company: 001-Electric Services

Location: 410 Distribution

**Project Information**

Construction Start Date 1/1/2016 Estimated Completion Date 6/30/2017

List Interim In-Service Dates

N/A

Project Need Justification

System modeling has determined that low voltages occur during normal peak loading conditions in addition to extended outages of the existing radial system due to an inability to transfer loads. Service reliability will be threatened without completion of this line extension upgrade and the quality of service to customers in the area may be lower than allowable limits. The project funds will cover materials, labor, equipment and other costs (which include but are not limited to permitting, right-of-way, contractor costs, environmental screening and monitoring).

Project Alternatives

The alternatives considered include: 1) to continue to operate with the current radial design in place, or 2) convert the radial design to a loop system design and construct additional 3-phase lines to facilitate load transfers. Continuing to operate the current radial design does not address the system reliability risks of inadequate quality of service associated with low system voltage and potential for extended power outages. However, completing the conversion will improve both phase load balance, feeder voltages, and minimize the duration of system outages. This will contribute to overall improved system reliability and quality of service.

Technical Aspects

The project consists of installing a new padmount switchgear, approximately 12,800-ft. of overhead conductor, 11,000-ft. of underground cable, and upgrading padmount switchgears.

Project Estimate Approach

N/A

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

Cost Year 01

Project	41001715	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			5,000	5,000	20,000	20,000	20,000	20,000	90,000		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			50,000	30,000	30,000	30,000	15,000	10,000	165,000		
370-Outside Services	0			0	0	75,000	75,000	78,000	68,500	296,500		
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	-1,820	-1,820	-1,820	-5,459		
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			394	394	1,574	1,574	1,574	1,574	7,083		
914-Pension and Benefits Load	0			1,497	1,497	5,988	5,988	5,988	5,988	26,946		
915-Injuries and Damages Load	0			326	326	1,304	1,304	1,304	1,304	5,868		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			5,560	3,336	3,336	3,336	1,668	1,112	18,348		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			10,585	6,885	24,765	24,765	22,545	19,863	109,408		
926-A and G Loads	0			4,576	2,912	10,400	10,400	9,402	8,195	45,885		
928-AFUDC Debt Reg	0			88	233	485	874	1,243	1,574	4,496		
929-AFUDC - Equity Regular	0			95	252	525	946	1,346	1,705	4,869		
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			78,121	50,835	173,377	172,367	156,250	137,995	768,945		
825-Clearings	0			0	0	0	0	0	-768,945	-768,945		
Clr Sum	0			0	0	0	0	0	-768,945	-768,945		
Proj Net	0			78,121	50,835	173,377	172,367	156,250	-630,950	0		

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

Cost Year 02

Project	41001715	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	90,000	0	0	6,000	6,250	6,000	6,000	0	0	0	0	0	0	114,250
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	165,000	150,000	142,000	20,000	0	0	0	0	0	0	0	0	0	477,000
	370-Outside Services	296,500	0	0	100,000	100,000	125,000	0	0	0	0	0	0	0	621,500
	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	-5,459	-651	-651	0	0	0	0	0	0	0	0	0	0	-6,761
	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	7,083	0	0	470	490	470	470	0	0	0	0	0	0	8,984
	914-Pension and Benefits Load	26,946	0	0	1,637	1,706	1,637	1,637	0	0	0	0	0	0	33,564
	915-Injuries and Damages Load	5,868	0	0	373	389	373	373	0	0	0	0	0	0	7,376
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	18,348	25,950	24,566	3,460	0	0	0	0	0	0	0	0	0	72,324
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	109,408	28,800	27,264	24,668	20,896	25,628	1,628	0	0	0	0	0	0	238,294
	926-A and G Loads	45,885	10,080	9,542	8,467	7,140	8,803	403	0	0	0	0	0	0	90,321
	928-AFUDC Debt Reg	4,496	279	712	1,000	1,155	1,291	1,228	0	0	0	0	0	0	10,162
	929-AFUDC - Equity Regular	4,869	366	934	1,311	1,515	1,694	1,611	0	0	0	0	0	0	12,300
	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	768,945	214,824	204,368	167,388	139,541	170,897	13,351	0	0	0	0	0	0	1,679,314
	825-Clearings	-768,945	-42,965	-75,246	-93,674	-102,847	-116,457	-479,180	0	0	0	0	0	0	-1,679,314
	Clr Sum	-768,945	-42,965	-75,246	-93,674	-102,847	-116,457	-479,180	0	0	0	0	0	0	-1,679,314
Proj Net		0	171,860	129,122	73,714	36,693	54,440	-465,829	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	41001715	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	114,250	0	0	0	0	0	0	0	0	0	0	0	0	114,250
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	477,000	0	0	0	0	0	0	0	0	0	0	0	0	477,000
	370-Outside Services	621,500	0	0	0	0	0	0	0	0	0	0	0	0	621,500
	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	-6,761	0	0	0	0	0	0	0	0	0	0	0	0	-6,761
	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	8,984	0	0	0	0	0	0	0	0	0	0	0	0	8,984
	914-Pension and Benefits Load	33,564	0	0	0	0	0	0	0	0	0	0	0	0	33,564
	915-Injuries and Damages Load	7,376	0	0	0	0	0	0	0	0	0	0	0	0	7,376
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	72,324	0	0	0	0	0	0	0	0	0	0	0	0	72,324
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	238,294	0	0	0	0	0	0	0	0	0	0	0	0	238,294
	926-A and G Loads	90,321	0	0	0	0	0	0	0	0	0	0	0	0	90,321
	928-AFUDC Debt Reg	10,162	0	0	0	0	0	0	0	0	0	0	0	0	10,162
	929-AFUDC - Equity Regular	12,300	0	0	0	0	0	0	0	0	0	0	0	0	12,300
	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	1,679,314	0	0	0	0	0	0	0	0	0	0	0	0	1,679,314
	825-Clearings	-1,679,314	0	0	0	0	0	0	0	0	0	0	0	0	-1,679,314
	Clr Sum	-1,679,314	0	0	0	0	0	0	0	0	0	0	0	0	-1,679,314
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Project No: 41001915 Mejia 14 Estrada Calabasa Line Extension**

Company: 001-Electric Services  
Location: 410 Distribution

Project Information

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

List Interim In-Service Dates  
N/A

Project Need Justification

The scope of the project is to construct overhead distribution facilities that are necessary to resolve voltages that are below American National Standards Institute (ANSI) C84.1 Range A level of 118.7 volts and to further increase reliability by minimizing outage restoration times. The existing radial design of the distribution system does not provide the necessary capacity for back-up during a power outage. Converting the radial design to a looped design provides the necessary redundancy, further minimizing outage restoration times. The project funds will cover materials, labor, equipment and other costs (which include but are not limited to permitting, right-of-way, contractor costs, environmental screening and monitoring).

Project Alternatives

The alternative to this project would be to continue to operate the current radial system design. The primary difference between radial and the proposed loop system is that a radial system design provides only a single source to serve the load. With a loop system design, an alternate route is made available to either the same source or different source is provided, thus allowing a portion of the loop system to provide service while repairs are made to the remaining portion.

Technical Aspects

The project consists of the following items:• Installation of approximately 3,200ft of 750AL Jacketed Concentric Neutral cable in the existing conduit south to Paseo De La Tierra and Estrada Calabasa to a new riser from the PMH-9 switch located at the intersection of Paseo De La Tierra and Vuelta Montuosa,• Build 14,000ft of 397AAC overhead conductor designed to support a 570amp rating from the intersection of Paseo De La Tierra and Estrada east along Estrada Calabasa and Estrada Redondo, and south along Vuelta Herradura to SW2530F located on Camino Ladera Rd west of intersection of Tierra De Tano and Paseo De Aguila.At completion, this project will result in the development of a 3-phase underground system that improves system voltages and the ability to transfer loads.

Project Estimate Approach

The project cost estimates are developed using PNM’s Compatible Units (CUs) and in some cases historical cost information for similar type projects. The CUs provide unit costs for materials, labor, and equipment. Initial estimates developed using CUs are based on best available information at the time of preliminary design and may change due to unforeseen routing or site specific conditions. Material & Equipment accounts for 78% of the total project costs, labor 4%, and miscellaneous costs accounted for 18%. Other costs include, but are not limited to, permitting, right-of-way, contractor costs and environmental. These costs are established by either using historical costs or using estimated costs determined by the governing agency and/or a bidding process.

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

Cost Year 01

Project	41001915	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	3,144		5,000	20,000	20,000	20,000	20,000	17,500	105,644		
	120-Overtime-General	0		0	0	0	0	0	0	0		
	350-Material Issues-Major	0		51,000	50,000	0	0	0	0	101,000		
	370-Outside Services	4,744		0	0	70,000	70,000	70,000	50,000	264,744		
	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	-1,797	-1,797	-1,797	-5,390		
	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	250		394	1,574	1,574	1,574	1,574	1,377	8,316		
	914-Pension and Benefits Load	965		1,497	5,988	5,988	5,988	5,988	5,240	31,653		
	915-Injuries and Damages Load	240		326	1,304	1,304	1,304	1,304	1,141	6,923		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	51		5,671	5,560	0	0	0	0	11,282		
	922-Minor Material Load	0		0	0	0	0	0	0	0		
	925-E and S Loads	249		10,770	14,590	18,290	18,290	18,290	13,923	94,402		
	926-A and G Loads	73		4,659	5,824	7,488	7,488	7,488	5,616	38,636		
	928-AFUDC Debt Reg	71		113	321	581	863	1,144	1,392	4,484		
	929-AFUDC - Equity Regular	36		122	347	629	934	1,238	1,508	4,815		
	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	9,822		79,552	105,508	125,854	124,644	125,229	95,900	666,509		
	825-Clearings	0		0	0	0	0	0	-667,037	-667,037		
	Clr Sum	0		0	0	0	0	0	-667,037	-667,037		
Proj Net		9,822		79,552	105,508	125,854	124,644	125,229	-571,138	-528		

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

Cost Year 02

Project	41001915	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	105,644	0	0	0	0	5,000	5,000	5,000	5,000	2,500	0	0	0	128,144
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	101,000	50,000	50,000	60,000	56,000	0	0	0	0	0	0	0	0	317,000
370-Outside Services	264,744	0	0	0	0	50,000	100,000	100,000	50,000	0	0	0	0	564,744
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	-5,390	-217	-217	0	0	0	0	0	0	0	0	0	0	-5,824
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	8,316	0	0	0	0	392	392	392	392	196	0	0	0	10,080
914-Pension and Benefits Load	31,653	0	0	0	0	1,365	1,365	1,365	1,365	682	0	0	0	37,794
915-Injuries and Damages Load	6,923	0	0	0	0	311	311	311	311	156	0	0	0	8,322
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	11,282	8,650	8,650	10,380	9,688	0	0	0	0	0	0	0	0	48,650
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	94,402	9,600	9,600	11,520	10,752	10,957	20,557	20,557	10,957	678	0	0	0	199,580
926-A and G Loads	38,636	3,360	3,360	4,032	3,763	3,696	7,056	7,056	3,696	168	0	0	0	74,823
928-AFUDC Debt Reg	4,484	93	242	382	501	580	717	893	953	847	687	553	445	11,377
929-AFUDC - Equity Regular	4,815	122	318	500	657	761	941	1,172	1,250	1,112	901	725	583	13,857
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	666,509	71,608	71,953	86,814	81,362	73,062	136,339	136,746	73,923	6,339	1,587	1,277	1,028	1,408,548
825-Clearings	-667,037	-14,322	-25,848	-38,041	-46,705	-51,977	-68,849	-82,428	-80,727	-65,850	-52,997	-42,653	-171,641	-1,409,077
Clr Sum	-667,037	-14,322	-25,848	-38,041	-46,705	-51,977	-68,849	-82,428	-80,727	-65,850	-52,997	-42,653	-171,641	-1,409,077
Proj Net	-528	57,287	46,105	48,773	34,656	21,086	67,490	54,317	-6,804	-59,511	-51,410	-41,376	-170,613	-528

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

Cost Year 03

Project	41001915	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	128,144	0	0	0	0	0	0	0	0	0	0	0	0	128,144	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	317,000	0	0	0	0	0	0	0	0	0	0	0	0	317,000	
370-Outside Services	564,744	0	0	0	0	0	0	0	0	0	0	0	0	564,744	
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	-5,824	0	0	0	0	0	0	0	0	0	0	0	0	-5,824	
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	10,080	0	0	0	0	0	0	0	0	0	0	0	0	10,080	
914-Pension and Benefits Load	37,794	0	0	0	0	0	0	0	0	0	0	0	0	37,794	
915-Injuries and Damages Load	8,322	0	0	0	0	0	0	0	0	0	0	0	0	8,322	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	48,650	0	0	0	0	0	0	0	0	0	0	0	0	48,650	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	199,580	0	0	0	0	0	0	0	0	0	0	0	0	199,580	
926-A and G Loads	74,823	0	0	0	0	0	0	0	0	0	0	0	0	74,823	
928-AFUDC Debt Reg	11,377	0	0	0	0	0	0	0	0	0	0	0	0	11,377	
929-AFUDC - Equity Regular	13,857	0	0	0	0	0	0	0	0	0	0	0	0	13,857	
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	1,408,548	0	0	0	0	0	0	0	0	0	0	0	0	1,408,548	
825-Clearings	-1,409,077	0	0	0	0	0	0	0	0	0	0	0	0	-1,409,077	
Clr Sum	-1,409,077	0	0	0	0	0	0	0	0	0	0	0	0	-1,409,077	
Proj Net	-528	0	0	0	0	0	0	0	0	0	0	0	0	-528	

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***Project No: 60001713 SF Switchgear Replacements***

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

Construction Start Date 9/1/2013 Estimated Completion Date 12/31/2020

List Interim In-Service Dates

Multiple work orders (WO) will be written, possibly one for each switchgear, thus the individual WO will be cleared as soon as possible after the switchgear is replaced.

Project Need Justification

This project involves replacing approximately 50 non-load break pad-mounted switchgear in the Santa Fe Division over a three year period. Older style switchgear pose an operational hazard and reliability exposure. Switchgear flashovers and fires have occurred in past attempts of removing non-load break fuses. Fires have also been caused by the failure of aging and the inferior design of older mechanical switch mechanisms. A survey of nearly half of the switchgear in Santa Fe has identified 48 such switchgears of this older, non-load break, style.

Project Alternatives

The current alternative to replacement is an operational edict that disallows operation of these switches or removal of fuses in these switchgear while energized. Thus, performing planned or emergency outages for customers or for utility needs requires locating load break capable switchgear elsewhere on the feeder which increases the number of customers affected by outages when switching or fuse removals are required. This is not a viable long-term solution due to the increased inconvenience (reliability) of customers' service. It also effectively negates the operational capabilities envisioned when the switches were initially installed and results in operational inefficiencies. Each repair is evaluated by an engineer, who evaluates the gear configuration and determines how to best address the issue to today's standards. Alternatives to each repair is evaluated on a case-by-case basis.

Technical Aspects

Switchgear with a higher priority need for replacement will be worked first beginning with eight switchgears to be replaced in 2013, 25 in 2014 and 17 in 2015. PNM will replace non-load break switches that pose a arc flash potential with switch gears that are design to perform load break operations. Replacement of switchgears are both timely and costly. They require switching, outages, after hours work, excavation, disassembly and installation.

Project Estimate Approach

Project estimates are based on the individual replacement of a switchgear multiplied by the expected number of switchgears to be replaced. For this work, materials make up ~50% of the cost and engineering and labor make up the remaining cost.

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

Cost Year 01

Project	60001713	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	74,464		5,000	5,000	5,000	5,000	0	0	94,464		
	120-Overtime-General	28,466		0	0	0	0	0	0	28,466		
	350-Material Issues-Major	528,232		50,000	50,000	45,000	45,000	0	0	718,232		
	370-Outside Services	63,161		400	0	0	0	0	0	63,561		
	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	-1,703	-1,703	-1,703	-5,108		
	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	8,108		394	394	394	394	0	0	9,682		
	914-Pension and Benefits Load	29,719		1,497	1,497	1,497	1,497	0	0	35,707		
	915-Injuries and Damages Load	7,733		326	326	326	326	0	0	9,037		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	31,631		5,560	5,560	5,004	5,004	0	0	52,759		
	922-Minor Material Load	47,563		0	0	0	0	0	0	47,563		
	925-E and S Loads	105,745		10,659	10,585	9,660	9,660	0	0	146,309		
	926-A and G Loads	64,236		4,609	4,576	4,160	4,160	0	0	81,742		
	928-AFUDC Debt Reg	14,495		551	730	902	818	898	898	19,291		
	929-AFUDC - Equity Regular	19,245		597	791	976	885	972	972	24,439		
	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	1,022,799		79,593	79,459	72,918	71,041	167	168	1,326,144		
	825-Clearings	-915,114		0	0	-109,340	0	0	-399,396	-1,423,850		
	Clr Sum	-915,114		0	0	-109,340	0	0	-399,396	-1,423,850		
	Proj Net	107,685		79,593	79,459	-36,422	71,041	167	-399,228	-97,706		

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

Cost Year 02

Project	60001713	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	94,464	0	0	8,500	0	8,500	8,500	8,500	0	0	0	0	0	128,464
120-Overtime-General	28,466	0	0	0	0	0	0	0	0	0	0	0	0	28,466
350-Material Issues-Major	718,232	0	0	53,000	0	53,000	53,000	52,500	0	0	0	0	0	929,732
370-Outside Services	63,561	0	0	0	0	0	2,785	0	0	0	0	0	0	66,346
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	-5,108	0	0	0	0	0	0	0	0	0	0	0	0	-5,108
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	9,682	0	0	666	0	666	666	666	0	0	0	0	0	12,348
914-Pension and Benefits Load	35,707	0	0	2,320	0	2,320	2,320	2,320	0	0	0	0	0	44,985
915-Injuries and Damages Load	9,037	0	0	529	0	529	529	529	0	0	0	0	0	11,152
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	52,759	0	0	9,169	0	9,169	9,169	9,083	0	0	0	0	0	89,349
922-Minor Material Load	47,563	0	0	0	0	0	0	0	0	0	0	0	0	47,563
925-E and S Loads	146,309	0	0	12,483	0	12,483	13,018	12,387	0	0	0	0	0	196,679
926-A and G Loads	81,742	0	0	4,133	0	4,133	4,320	4,099	0	0	0	0	0	98,426
928-AFUDC Debt Reg	19,291	0	0	118	178	297	541	617	739	743	561	564	567	24,216
929-AFUDC - Equity Regular	24,439	0	0	155	234	390	709	810	969	975	735	740	744	30,900
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	1,326,144	0	0	91,073	412	91,487	95,556	91,511	1,707	1,718	1,296	1,304	1,312	1,703,518
825-Clearings	-1,423,850	0	0	-22,768	0	0	-63,940	0	0	-71,689	0	0	-218,977	-1,801,224
Clr Sum	-1,423,850	0	0	-22,768	0	0	-63,940	0	0	-71,689	0	0	-218,977	-1,801,224
Proj Net	-97,706	0	0	68,305	412	91,487	31,616	91,511	1,707	-69,971	1,296	1,304	-217,666	-97,706

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

Cost Year 03

Project	60001713	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	128,464	0	0	7,237	0	0	14,474	0	0	14,474	0	0	7,237	171,885
	120-Overtime-General	28,466	0	0	0	0	0	0	0	0	0	0	0	0	28,466
	350-Material Issues-Major	929,732	0	0	21,711	0	0	32,567	0	0	32,567	0	0	0	1,016,576
	370-Outside Services	66,346	0	0	0	0	0	0	0	0	0	0	0	0	66,346
	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		-5,108	0	0	0	0	0	0	0	0	0	0	0	0	-5,108
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		12,348	0	0	567	0	0	1,135	0	0	1,135	0	0	567	15,752
914-Pension and Benefits Load		44,985	0	0	1,975	0	0	3,950	0	0	3,950	0	0	1,975	56,835
915-Injuries and Damages Load		11,152	0	0	450	0	0	900	0	0	900	0	0	450	13,853
918-San Juan AR-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		89,349	0	0	3,756	0	0	5,634	0	0	5,634	0	0	0	104,373
922-Minor Material Load		47,563	0	0	0	0	0	0	0	0	0	0	0	0	47,563
925-E and S Loads		196,679	0	0	6,133	0	0	10,181	0	0	10,181	0	0	1,964	225,137
926-A and G Loads		98,426	0	0	1,945	0	0	3,161	0	0	3,161	0	0	486	107,180
928-AFUDC Debt Reg		24,216	0	0	57	86	86	181	207	208	303	299	300	318	26,262
929-AFUDC - Equity Regular		30,900	0	0	52	77	78	163	186	187	273	269	271	287	32,743
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		1,703,518	0	0	43,883	163	164	72,345	393	395	72,577	568	571	13,285	1,907,863
825-Clearings		-1,801,224	0	0	-10,971	0	0	-26,396	0	0	-38,139	0	0	-128,840	-2,005,569
Clr Sum		-1,801,224	0	0	-10,971	0	0	-26,396	0	0	-38,139	0	0	-128,840	-2,005,569
Proj Net		-97,706	0	0	32,912	163	164	45,949	393	395	34,439	568	571	-115,555	-97,706

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**Project No: 60001714 College Substation      \$5,046,779 \$18,499      \$5,046,779**

Company:      001-Electric Services  
Location:      600 Distribution

Project Information

Construction Start Date      1/1/2014      Estimated Completion Date      8/31/2016  
List Interim In-Service Dates  
N/A

Project Need Justification

This project is to serve the area south of Hwy 263 to Marquez Rd. and east of the Rio Grande River in southeast Valencia County by developing a new distribution substation. The new substation is recommended due to existing demand and is expected to support growth along the Hwy 47 corridor and the Manzano Expressway. Tome, Manzano, and El Cerro Substations are currently providing the distribution delivery capacity for this area. College Substation will provide backup capacity to the aforementioned substations. Currently a Manzano Substation outage during peak load periods would overload the adjacent area El Cerro and Tome Substation transformers by over 180 hours per year. This project will greatly simplify operation of the system, by eliminating several supplemental cascading load transfers presently utilized, minimize outage restoration times, and provide more certainty that adjacent facilities will be available to restore power when needed.

Project Alternatives

Two alternatives were considered:The first was to install a unit two transformer at the existing Manzano Substation. A Manzano Unit II option could be used to provide backup support for Manzano Unit I and Tome Substation. However, due to the length of the feeders from Tome Substation to the existing Manzano Substation, voltage levels would be lower than the acceptable voltage range for contingency situations. Any additional load growth would require additional distribution feeder voltage support improvements. This option would also only allow two new feeders from a second unit at Manzano Substation that could be effectively used at this time to unload Manzano Feeder 11 and 13 and to provide backup support to the area. The second alternative considered was to install a second transformer at the existing El Cerro Substation. An El Cerro Unit II option could be used to provide backup support for El Cerro Unit I and Manzano. The proposed feeders brought out of the substation do not help resolve issues associated with Tome Substation outages to the south which is a less efficient use of the new transformer capacity in comparison to the preferred alternative. This location also would not alleviate the long length of the feeders between Tome Substation and Manzano substation, so voltage levels will initially be lower than the acceptable voltage range for contingency situations. Any additional load growth would require additional distribution feeder voltage support improvements. Again, this alternative has only two feeders that could be effectively used to unload El Cerro 12 and Manzano 11 and to provide backup support to the area.

#### Technical Aspects

This project includes the purchase of a new substation site under the 115 kV AT transmission line in the vicinity of the University of New Mexico - Valencia College. The substation will consist of a new 115-12.47 kV, 22.4 MVA substation transformer and a four-breaker switchgear.

#### Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. A market value analysis is conducted to determine the land costs. Basic materials are estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment like transformers and switchgears we contacted our alliance vendors (SPX/Waukesha and Central Electric/AZZ respectively) and requested information regarding the costs and schedules of these major items. Labor and contractor estimates were created from past projects that are similar in nature. For this project past unit substations (Snow Vista and Scenic) were referenced. All overhead costs are standard and calculated using the approved corporate software. Of the total costs, internal labor accounts for 7%, material accounts for 14%, contract services accounts for 50%, and overhead costs accounts for 29%.

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

Cost Year 01

Project	60001714	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	218,774		5,000	5,000	0	0	0	0	228,774		
	120-Overtime-General	15,990		0	0	0	0	0	0	15,990		
	350-Material Issues-Major	470,745		0	0	0	0	0	0	470,745		
	370-Outside Services	2,392,469		30,000	10,000	0	0	0	0	2,432,469		
	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	2,112		0	0	0	0	0	0	2,112		
	610-Expenses - General	0		0	0	0	0	0	0	0		
	805-Land and Land Rights	21,798		0	0	0	0	0	0	21,798		
	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	19,943		394	394	0	0	0	0	20,730		
	914-Pension and Benefits Load	73,620		1,497	1,497	0	0	0	0	76,614		
	915-Injuries and Damages Load	17,752		326	326	0	0	0	0	18,404		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	119,077		0	0	0	0	0	0	119,077		
	922-Minor Material Load	39,983		0	0	0	0	0	0	39,983		
	925-E and S Loads	567,723		6,885	3,185	0	0	0	0	577,793		
	926-A and G Loads	288,682		2,912	1,248	0	0	0	0	292,842		
	928-AFUDC Debt Reg	136,529		11,168	11,298	0	0	0	0	158,995		
	929-AFUDC - Equity Regular	140,816		12,095	12,235	0	0	0	0	165,146		
	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	4,526,016		70,276	45,183	0	0	0	0	4,641,475		
	825-Clearings	0		0	-5,046,779	0	0	0	0	-5,046,779		
	Clr Sum	0		0	-5,046,779	0	0	0	0	-5,046,779		
Proj Net		4,526,016		70,276	-5,001,596	0	0	0	0	-405,304		

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

Cost Year 02

Project	60001714	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	228,774	0	0	0	0	0	0	0	0	0	0	0	0	228,774
	120-Overtime-General	15,990	0	0	0	0	0	0	0	0	0	0	0	0	15,990
	350-Material Issues-Major	470,745	0	0	0	0	0	0	0	0	0	0	0	0	470,745
	370-Outside Services	2,432,469	0	0	0	0	0	0	0	0	0	0	0	0	2,432,469
	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	2,112	0	0	0	0	0	0	0	0	0	0	0	0	2,112
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	21,798	0	0	0	0	0	0	0	0	0	0	0	0	21,798
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	20,730	0	0	0	0	0	0	0	0	0	0	0	0	20,730
	914-Pension and Benefits Load	76,614	0	0	0	0	0	0	0	0	0	0	0	0	76,614
	915-Injuries and Damages Load	18,404	0	0	0	0	0	0	0	0	0	0	0	0	18,404
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	119,077	0	0	0	0	0	0	0	0	0	0	0	0	119,077
	922-Minor Material Load	39,983	0	0	0	0	0	0	0	0	0	0	0	0	39,983
	925-E and S Loads	577,793	0	0	0	0	0	0	0	0	0	0	0	0	577,793
	926-A and G Loads	292,842	0	0	0	0	0	0	0	0	0	0	0	0	292,842
	928-AFUDC Debt Reg	158,995	0	0	0	0	0	0	0	0	0	0	0	0	158,995
	929-AFUDC - Equity Regular	165,146	0	0	0	0	0	0	0	0	0	0	0	0	165,146
	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	4,641,475	0	0	0	0	0	0	0	0	0	0	0	0	4,641,475
	825-Clearings	-5,046,779	0	0	0	0	0	0	0	0	0	0	0	0	-5,046,779
	Clr Sum	-5,046,779	0	0	0	0	0	0	0	0	0	0	0	0	-5,046,779
Proj Net		-405,304	0	0	0	0	0	0	0	0	0	0	0	0	-405,304

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

Cost Year 03

Project	60001714	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	228,774	0	0	0	0	0	0	0	0	0	0	0	0	228,774
	120-Overtime-General	15,990	0	0	0	0	0	0	0	0	0	0	0	0	15,990
	350-Material Issues-Major	470,745	0	0	0	0	0	0	0	0	0	0	0	0	470,745
	370-Outside Services	2,432,469	0	0	0	0	0	0	0	0	0	0	0	0	2,432,469
	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	2,112	0	0	0	0	0	0	0	0	0	0	0	0	2,112
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	21,798	0	0	0	0	0	0	0	0	0	0	0	0	21,798
	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	20,730	0	0	0	0	0	0	0	0	0	0	0	0	20,730
	914-Pension and Benefits Load	76,614	0	0	0	0	0	0	0	0	0	0	0	0	76,614
	915-Injuries and Damages Load	18,404	0	0	0	0	0	0	0	0	0	0	0	0	18,404
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	119,077	0	0	0	0	0	0	0	0	0	0	0	0	119,077
	922-Minor Material Load	39,983	0	0	0	0	0	0	0	0	0	0	0	0	39,983
	925-E and S Loads	577,793	0	0	0	0	0	0	0	0	0	0	0	0	577,793
	926-A and G Loads	292,842	0	0	0	0	0	0	0	0	0	0	0	0	292,842
	928-AFUDC Debt Reg	158,995	0	0	0	0	0	0	0	0	0	0	0	0	158,995
	929-AFUDC - Equity Regular	165,146	0	0	0	0	0	0	0	0	0	0	0	0	165,146
	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	4,641,475	0	0	0	0	0	0	0	0	0	0	0	0	4,641,475
	825-Clearings	-5,046,779	0	0	0	0	0	0	0	0	0	0	0	0	-5,046,779
	Clr Sum	-5,046,779	0	0	0	0	0	0	0	0	0	0	0	0	-5,046,779
	Proj Net	-405,304	0	0	0	0	0	0	0	0	0	0	0	0	-405,304

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**Project No: 60001916 Field Mobility Program**

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

Construction Start Date                      4/17/2017                      Estimated Completion Date

List Interim In-Service Dates

Project Need Justification

Currently, there are significant inefficiencies in work management, resource utilization, customer communication, and reliability. With this project, a series of upgrades are planned in an effort to better and more effectively leverage mobile workforce capabilities. These mobility upgrades can help PNM gain efficiencies in engineering, line and substation maintenance, operations, and relay teams, as well as VM (virtual metering) and AM (advanced metering). Estimates and work for this project include obtaining approval permits, work orders, remote testing and technical adjustments, invoice approval, and crew and outage dispatching.

Project Alternatives

The current mobility program is severely hampered by Wi-Fi connectivity issues, security constraints, and hardware/software problems. The only other alternative would be to completely disband most current mobile applications and resort to the tasks being done at the physical office location through paper processes or voice applications. This will have a tremendously negative impact on PNM's ability to gain process and performance improvements.

Technical Aspects

Specific work will first identify then implement specified improvements through new asset or other Wi-Fi connectivity solutions. PNM will initiate a request for proposal (RFP) for specific hardware options (tablets, laptops, accessories, etc.) and integrate these items into a comprehensive security platform. At the conclusion, PNM technicians will perform due diligence for users by work group and determine the appropriate software and applications for each work group.

Project Estimate Approach

This project was estimated using the standard procedures of the System Engineering group. Basic materials costs were estimated using actual costs of past projects. These figures are updated in the estimating software periodically. Labor and contractor estimates were also created from similar past projects.



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

Cost Year 01

Project	60001916	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	60001916	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	500	500	500	500	500	0	500	1,000	1,000	1,000	1,000	7,000
	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	0	149,000	0	0	200,000	125,000	130,000	604,000
	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	39	39	39	39	39	0	39	78	78	78	78	549
	914-Pension and Benefits Load	0	0	136	136	136	136	136	0	136	273	273	273	273	1,910
	915-Injuries and Damages Load	0	0	31	31	31	31	31	0	31	62	62	62	62	435
	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	136	136	136	136	136	28,608	136	271	38,671	24,271	25,231	117,868
	926-A and G Loads	0	0	34	34	34	34	34	10,013	34	67	13,507	8,467	8,803	41,059
	928-AFUDC Debt Reg	0	0	1	3	6	8	10	256	503	510	846	1,389	1,820	5,353
	929-AFUDC - Equity Regular	0	0	1	5	8	11	14	336	660	669	1,109	1,822	2,387	7,021
	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	879	884	889	895	900	188,213	2,040	2,931	255,547	162,362	169,656	785,195
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-785,195	-785,195
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-785,195	-785,195
	Proj Net	0	0	879	884	889	895	900	188,213	2,040	2,931	255,547	162,362	-615,539	0

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

Cost Year 03

Project	60001916	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,000	0	0	0	0	0	0	0	0	0	0	0	0	7,000
	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	604,000	0	0	0	0	0	0	0	0	0	0	0	0	604,000
	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	549	0	0	0	0	0	0	0	0	0	0	0	0	549
	914-Pension and Benefits Load	1,910	0	0	0	0	0	0	0	0	0	0	0	0	1,910
	915-Injuries and Damages Load	435	0	0	0	0	0	0	0	0	0	0	0	0	435
	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	117,868	0	0	0	0	0	0	0	0	0	0	0	0	117,868
	926-A and G Loads	41,059	0	0	0	0	0	0	0	0	0	0	0	0	41,059
	928-AFUDC Debt Reg	5,353	0	0	0	0	0	0	0	0	0	0	0	0	5,353
	929-AFUDC - Equity Regular	7,021	0	0	0	0	0	0	0	0	0	0	0	0	7,021
	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	785,195	0	0	0	0	0	0	0	0	0	0	0	0	785,195
	825-Clearings	-785,195	0	0	0	0	0	0	0	0	0	0	0	0	-785,195
	Clr Sum	-785,195	0	0	0	0	0	0	0	0	0	0	0	0	-785,195
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 60002313 Emergency and Aging Equip Distr***

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

Construction Start Date 5/31/2013 Estimated Completion Date 12/31/2016

List Interim In-Service Dates

Equipment will be placed in service as it is delivered, with approximately six work orders per year.

Project Need Justification

This project blanket addresses the replacement of failing or functionally obsolete equipment, primarily at distribution stations. This will also involve purchasing specialty equipment with long lead times that cannot be acquired within a reasonable time during an emergency. Equipment purchased or replaced under this program includes medium power transformers, relays, circuit switches, and metal enclosed switchgear.

Project Alternatives

The alternative to this project is to not purchase or replace equipment and delay addressing these issues until equipment failure. This may require reconfiguration of the system, loss of redundancy, and loss of load during the time it takes to acquire and install new equipment. It should be noted that these items are not readily available on the market or from other utilities. When an emergency occurs, PNM evaluates alternative for reinstatement of service on a case-by-case basis. An example of the use of this program is the unexpected failure of the Prager Unit Substation. PNM evaluated the project based on alternatives of repair, ability to reliably support the load through the underlying distribution system, or use of the emergency spare program. Based on long term costs and system reliability provided, use of the emergency spare was chosen. When the emergency spare was selected to be put into permanent service at Prager, another transformer was ordered for the emergency program.

Technical Aspects

Through analysis of recent PNM equipment performance, staff knowledge, and industry information, PNM determined those items, if out of service for an extended period of time, could adversely affect our ability to provide reliable service in accordance with established criteria. These items were then evaluated for purchase as emergency spares and/or were directly placed into service. Items purchased have included medium power transformers, relays, disconnect switches, 115kv surge arrestors, 115kV circuit switches, and metal enclosed switchgears. This equipment may require specialty design or characteristics (especially for direct replacement), further highlighting the need for advanced purchase.

#### Project Estimate Approach

PNM utilized existing long-term agreements for the purchase of larger items such as transformer, switchgear, and relays. Pricing has been and will continue to be evaluated at the time of development/renewal of the agreement. Other items were competitively priced from known quality vendors. Construction is performed under established unit rate contracts with known specialty firms. Where possible, historic data was used to assist in developing these estimates. Less than 5% of the project budget is associated with direct PNM labor. Approximately 40% of the cost will go towards the purchase of industry standard items such as circuit switchers, and relays. The remaining 55% is associated with specialty work including engineered equipment (medium voltage transformers, metal enclosed switchgear) and contract construction for the installation.

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

Cost Year 01.

Project	60002313	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	38,816		10,000	20,000	20,000	20,000	20,000	20,000	148,816		
	120-Overtime-General	765		0	0	0	0	0	0	765		
	350-Material Issues-Major	6,239		4,000	25,000	50,000	50,000	25,000	8,000	168,239		
	370-Outside Services	1,383,096		16,152	16,152	16,152	16,152	16,152	16,152	1,480,008		
	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	97		0	0	0	0	0	0	97		
	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	-5,637	-3,191	-3,191	-12,020		
	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	3,097		787	1,574	1,574	1,574	1,574	1,574	11,754		
	914-Pension and Benefits Load	11,381		2,994	5,988	5,988	5,988	5,988	5,988	44,315		
	915-Injuries and Damages Load	2,968		652	1,304	1,304	1,304	1,304	1,304	10,140		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	45,745		445	2,780	5,560	5,560	2,780	890	63,760		
	922-Minor Material Load	436		0	0	0	0	0	0	436		
	925-E and S Loads	220,641		6,398	12,953	17,578	17,578	12,953	9,808	297,911		
	926-A and G Loads	177,724		2,509	5,088	7,168	7,168	5,088	3,673	208,417		
	928-AFUDC Debt Reg	24,532		2,004	2,165	2,419	2,706	1,526	1,704	37,056		
	929-AFUDC - Equity Regular	24,257		2,170	2,345	2,620	2,931	1,652	1,845	37,820		
	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	1,939,795		48,110	95,349	130,363	125,324	90,826	67,747	2,497,514		
	825-Clearings	-1,783,089		0	0	0	-633,090	0	-791,663	-3,207,842		
	Clr Sum	-1,783,089		0	0	0	-633,090	0	-791,663	-3,207,842		
Proj Net		156,706		48,110	95,349	130,363	-507,766	90,826	-723,916	-710,328		

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

Cost Year 02

Project	60002313	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	148,816	0	0	0	0	0	0	0	0	0	0	0	0	148,816
	120-Overtime-General	765	0	0	0	0	0	0	0	0	0	0	0	0	765
	350-Material Issues-Major	168,239	0	0	0	0	0	0	0	0	0	0	0	0	168,239
	370-Outside Services	1,480,008	0	0	0	0	0	0	0	0	0	0	0	0	1,480,008
	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	97	0	0	0	0	0	0	0	0	0	0	0	0	97
	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	-12,020	0	0	0	0	0	0	0	0	0	0	0	0	-12,020
	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	11,754	0	0	0	0	0	0	0	0	0	0	0	0	11,754
	914-Pension and Benefits Load	44,315	0	0	0	0	0	0	0	0	0	0	0	0	44,315
	915-Injuries and Damages Load	10,140	0	0	0	0	0	0	0	0	0	0	0	0	10,140
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	63,760	0	0	0	0	0	0	0	0	0	0	0	0	63,760
	922-Minor Material Load	436	0	0	0	0	0	0	0	0	0	0	0	0	436
	925-E and S Loads	297,911	0	0	0	0	0	0	0	0	0	0	0	0	297,911
	926-A and G Loads	208,417	0	0	0	0	0	0	0	0	0	0	0	0	208,417
	928-AFUDC Debt Reg	37,056	0	0	0	0	0	0	0	0	0	0	0	0	37,056
	929-AFUDC - Equity Regular	37,820	0	0	0	0	0	0	0	0	0	0	0	0	37,820
	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	2,497,514	0	0	0	0	0	0	0	0	0	0	0	0	2,497,514
	825-Clearings	-3,207,842	0	0	0	0	0	0	0	0	0	0	0	0	-3,207,842
	Clr Sum	-3,207,842	0	0	0	0	0	0	0	0	0	0	0	0	-3,207,842
	Proj Net	-710,328	0	0	0	0	0	0	0	0	0	0	0	0	-710,328

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

Cost Year 03

Project	60002313	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	148,816	0	0	0	0	0	0	0	0	0	0	0	0	148,816
	120-Overtime-General	765	0	0	0	0	0	0	0	0	0	0	0	0	765
	350-Material Issues-Major	168,239	0	0	0	0	0	0	0	0	0	0	0	0	168,239
	370-Outside Services	1,480,008	0	0	0	0	0	0	0	0	0	0	0	0	1,480,008
	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	97	0	0	0	0	0	0	0	0	0	0	0	0	97
	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	-12,020	0	0	0	0	0	0	0	0	0	0	0	0	-12,020
	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	11,754	0	0	0	0	0	0	0	0	0	0	0	0	11,754
	914-Pension and Benefits Load	44,315	0	0	0	0	0	0	0	0	0	0	0	0	44,315
	915-Injuries and Damages Load	10,140	0	0	0	0	0	0	0	0	0	0	0	0	10,140
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	63,760	0	0	0	0	0	0	0	0	0	0	0	0	63,760
	922-Minor Material Load	436	0	0	0	0	0	0	0	0	0	0	0	0	436
	925-E and S Loads	297,911	0	0	0	0	0	0	0	0	0	0	0	0	297,911
	926-A and G Loads	208,417	0	0	0	0	0	0	0	0	0	0	0	0	208,417
	928-AFUDC Debt Reg	37,056	0	0	0	0	0	0	0	0	0	0	0	0	37,056
	929-AFUDC - Equity Regular	37,820	0	0	0	0	0	0	0	0	0	0	0	0	37,820
	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	2,497,514	0	0	0	0	0	0	0	0	0	0	0	0	2,497,514
	825-Clearings	-3,207,842	0	0	0	0	0	0	0	0	0	0	0	0	-3,207,842
	Clr Sum	-3,207,842	0	0	0	0	0	0	0	0	0	0	0	0	-3,207,842
	Proj Net	-710,328	0	0	0	0	0	0	0	0	0	0	0	0	-710,328

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Company: 001-Electric Services  
Location: 600 Distribution

<u>Construction Start Date</u>	10/1/2016	<u>Estimated Completion Date</u>	12/31/2018
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### 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	60002316	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	5,000	5,000	5,000	5,000	5,000	25,000		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	20,000	20,000	20,000	0	0	60,000		
370-Outside Services	0			0	0	5,000	10,000	0	0	15,000		
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	-489	-489	-489	-1,467		
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	394	394	394	394	394	1,968		
914-Pension and Benefits Load	0			0	1,497	1,497	1,497	1,497	1,497	7,485		
915-Injuries and Damages Load	0			0	326	326	326	326	326	1,630		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	2,224	2,224	2,224	0	0	6,672		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	5,035	5,960	6,885	1,335	1,335	20,550		
926-A and G Loads	0			0	2,080	2,496	2,912	416	416	8,320		
928-AFUDC Debt Reg	0			0	41	131	235	300	321	1,028		
929-AFUDC - Equity Regular	0			0	45	142	254	325	348	1,114		
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	36,641	43,169	49,238	9,104	9,147	147,299		
825-Clearings	0			0	0	0	0	0	-147,299	-147,299		
Clr Sum	0			0	0	0	0	0	-147,299	-147,299		
Proj Net	0			0	36,641	43,169	49,238	9,104	-138,152	0		

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

Cost Year 02

Project	60002316	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	25,000	0	0	0	0	0	0	0	0	0	0	0	0	25,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	60,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	396,000
	370-Outside Services	15,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	12,000	9,000	126,000
	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	-1,467	-156	-156	0	0	0	0	0	0	0	0	0	0	-1,779
	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	1,968	0	0	0	0	0	0	0	0	0	0	0	0	1,968
	914-Pension and Benefits Load	7,485	0	0	0	0	0	0	0	0	0	0	0	0	7,485
	915-Injuries and Damages Load	1,630	0	0	0	0	0	0	0	0	0	0	0	0	1,630
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	6,672	4,844	4,844	4,844	4,844	4,844	4,844	4,844	4,844	4,844	4,844	4,844	4,844	64,800
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	20,550	7,104	7,104	7,104	7,104	7,104	7,104	7,104	7,104	7,104	7,104	7,680	7,104	106,374
	926-A and G Loads	8,320	2,486	2,486	2,486	2,486	2,486	2,486	2,486	2,486	2,486	2,486	2,688	2,486	38,358
	928-AFUDC Debt Reg	1,028	67	201	336	472	609	747	885	1,025	1,165	1,306	1,453	1,601	10,894
	929-AFUDC - Equity Regular	1,114	88	264	441	619	799	979	1,161	1,344	1,528	1,713	1,906	2,100	14,055
	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	147,299	51,433	51,743	52,211	52,526	52,842	53,161	53,481	53,803	54,127	54,454	58,571	55,135	790,785
	825-Clearings	-147,299	0	0	0	0	0	0	0	0	0	0	0	-643,486	-790,785
	Clr Sum	-147,299	0	0	0	0	0	0	0	0	0	0	0	-643,486	-790,785
	Proj Net	0	51,433	51,743	52,211	52,526	52,842	53,161	53,481	53,803	54,127	54,454	58,571	-588,351	0

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

Cost Year 03

Project	60002316	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	25,000	0	0	0	0	0	0	0	0	0	0	0	0	25,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	396,000	12,300	12,300	12,300	12,300	12,300	12,300	12,300	12,300	12,300	12,300	12,300	12,300	543,600
370-Outside Services	126,000	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	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	-1,779	0	0	0	0	0	0	0	0	0	0	0	0	-1,779
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	1,968	0	0	0	0	0	0	0	0	0	0	0	0	1,968
914-Pension and Benefits Load	7,485	0	0	0	0	0	0	0	0	0	0	0	0	7,485
915-Injuries and Damages Load	1,630	0	0	0	0	0	0	0	0	0	0	0	0	1,630
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	64,800	2,128	2,128	2,128	2,128	2,128	2,128	2,128	2,128	2,128	2,128	2,128	2,128	90,335
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	106,374	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	3,418	147,385
926-A and G Loads	38,358	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	52,712
928-AFUDC Debt Reg	10,894	32	96	161	226	291	357	422	489	555	622	689	757	15,590
929-AFUDC - Equity Regular	14,055	29	87	145	204	262	321	381	440	500	561	621	682	18,288
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	790,785	24,603	24,725	24,848	24,971	25,095	25,220	25,345	25,471	25,597	25,724	25,852	25,980	1,094,214
825-Clearings	-790,785	0	0	0	0	0	0	0	0	0	0	0	-303,429	-1,094,214
Clr Sum	-790,785	0	0	0	0	0	0	0	0	0	0	0	-303,429	-1,094,214
Proj Net	0	24,603	24,725	24,848	24,971	25,095	25,220	25,345	25,471	25,597	25,724	25,852	-277,449	0

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**Project No: 60002416 RTU Replacement Program**

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

Construction Start Date 10/18/2016 Estimated Completion Date 12/31/2019

List Interim In-Service Dates

January 1, 2016December 31, 2016December 31, 2017December 31, 2018

Project Need Justification

The current set of remote terminal units (RTUs) has been in service for over 20 years, though the typical service lifetime is only 12 years. This project addresses the need to replace these outdated units and establish a more robust supervisory control and data acquisition (SCADA) system that will improve PNM's ability to provide preventative maintenance planning, drive down O&M costs and allow for better collection of data. The legacy RTUs are no longer serviceable and frequently fail, which leaves the distribution center operators without the ability to see load or operate field devices at distribution stations. The new equipment will provide the necessary level of reliability to accomplish this. In addition, complementary equipment will be needed to successfully implement this project, including master radios, channel banks, antennas, coax, polyphasers and other minor equipment.

Project Alternatives

The alternative to this project is continued use of the existing RTUs. However, by doing this, the distribution system will be limited in its ability to adapt to new technologies and lead to longer outages requiring crews to manually switch devices. Vendors no longer support the existing RTU and lead time for replacements can be up to 12 week. Preemptive replacement is necessary.

Technical Aspects

Work will involve coordinating with several vendors and internal departments as to the compatibility of replacement parts with the existing front-end processor (peripheral component interconnect or PCI) and other equipment. Once this is understood, it will be necessary to design a network topology to support the expanding smart grid within the distribution system and write standard documentation to allow for effective troubleshooting in the event of an outage. Further work will be required to balance the communication loading on master radios and the PCI and expand radio communication coverage in the Santa Fe and Albuquerque metro areas.

Project Estimate Approach

For equipment estimates, PNM is using quotes from several vendors for radios, multiplexors, RTU's and associated equipment. These vendors include Access Technologies, Data Communications for Business, and Advanced Control Systems. Labor will be determined by a negotiated contract agreed upon for union employees' and non-union employees' salaries with increases of 2.0 to 3.0 percent for each additional year.

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

Cost Year 01

Project	60002416	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	5,000	5,000	5,000	5,000	20,000		
120-Overtime-General	0			0	0	0	0	0	0	0		
350-Material Issues-Major	0			0	0	6,000	20,000	20,000	0	46,000		
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	-167	-167	-167	-500		
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	394	394	394	394	1,574		
914-Pension and Benefits Load	0			0	0	1,497	1,497	1,497	1,497	5,988		
915-Injuries and Damages Load	0			0	0	326	326	326	326	1,304		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	0			0	0	667	2,224	2,224	0	5,115		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	0			0	0	2,445	5,035	5,035	1,335	13,850		
926-A and G Loads	0			0	0	915	2,080	2,080	416	5,491		
928-AFUDC Debt Reg	0			0	0	19	80	162	214	476		
929-AFUDC - Equity Regular	0			0	0	21	87	176	232	515		
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	17,284	36,556	36,727	9,247	99,814		
825-Clearings	0			0	0	0	0	0	-99,814	-99,814		
Clr Sum	0			0	0	0	0	0	-99,814	-99,814		
Proj Net	0			0	0	17,284	36,556	36,727	-90,567	0		

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

Cost Year 02

Project	60002416	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	20,000	6,000	6,000	35,100	35,100	35,100	35,100	35,100	0	0	0	0	0	207,500
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	46,000	0	0	35,100	35,100	35,100	35,100	8,250	0	0	0	0	0	194,650
370-Outside Services	0	0	0	70,200	70,200	70,200	70,200	70,200	0	0	0	0	0	351,000
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	-500	-32	-32	0	0	0	0	0	0	0	0	0	0	-563
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	1,574	470	470	2,752	2,752	2,752	2,752	2,752	0	0	0	0	0	16,274
914-Pension and Benefits Load	5,988	1,637	1,637	9,579	9,579	9,579	9,579	9,579	0	0	0	0	0	57,157
915-Injuries and Damages Load	1,304	373	373	2,183	2,183	2,183	2,183	2,183	0	0	0	0	0	12,967
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	5,115	0	0	6,072	6,072	6,072	6,072	1,427	0	0	0	0	0	30,832
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	13,850	1,628	1,628	29,743	29,743	29,743	29,743	24,588	0	0	0	0	0	160,669
926-A and G Loads	5,491	403	403	9,435	9,435	9,435	9,435	7,631	0	0	0	0	0	51,668
928-AFUDC Debt Reg	476	14	41	316	840	1,366	1,896	2,379	2,604	0	0	0	0	9,932
929-AFUDC - Equity Regular	515	18	54	414	1,101	1,792	2,487	3,121	3,416	0	0	0	0	12,919
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	99,814	10,512	10,576	200,895	202,105	203,323	204,548	167,210	6,021	0	0	0	0	1,105,004
825-Clearings	-99,814	0	0	0	0	0	0	0	-1,005,190	0	0	0	0	-1,105,004
Clr Sum	-99,814	0	0	0	0	0	0	0	-1,005,190	0	0	0	0	-1,105,004
Proj Net	0	10,512	10,576	200,895	202,105	203,323	204,548	167,210	-999,169	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	60002416	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	207,500	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,000	291,720
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	194,650	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	7,020	0	271,870
370-Outside Services	351,000	26,326	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	0	677,326
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	-563	0	0	0	0	0	0	0	0	0	0	0	0	-563
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	16,274	550	550	550	550	550	550	550	550	550	550	550	549	22,877
914-Pension and Benefits Load	57,157	1,916	1,916	1,916	1,916	1,916	1,916	1,916	1,916	1,916	1,916	1,916	1,910	80,140
915-Injuries and Damages Load	12,967	437	437	437	437	437	437	437	437	437	437	437	435	18,205
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	30,832	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	1,214	0	44,191
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	160,669	8,308	9,013	9,013	9,013	9,013	9,013	9,013	9,013	9,013	9,013	9,013	1,900	261,006
926-A and G Loads	51,668	2,713	2,959	2,959	2,959	2,959	2,959	2,959	2,959	2,959	2,959	2,959	470	84,446
928-AFUDC Debt Reg	9,932	72	224	382	541	701	861	1,022	1,185	1,347	1,511	1,676	1,779	21,233
929-AFUDC - Equity Regular	12,919	65	202	344	488	632	776	922	1,068	1,215	1,362	1,511	1,603	23,106
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	1,105,004	55,641	60,555	60,856	61,158	61,462	61,767	62,074	62,382	62,692	63,003	63,316	15,646	1,795,557
825-Clearings	-1,105,004	0	0	0	0	0	0	0	0	0	0	0	-690,553	-1,795,557
Clr Sum	-1,105,004	0	0	0	0	0	0	0	0	0	0	0	-690,553	-1,795,557
Proj Net	0	55,641	60,555	60,856	61,158	61,462	61,767	62,074	62,382	62,692	63,003	63,316	-674,906	0

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**Project No: 60002715 12.5kv Breaker Replacement**

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

Construction Start Date 1/30/2014 Estimated Completion Date 12/31/2019

List Interim In-Service Dates

It is estimated that one station will be completed every month.

Project Need Justification

This project replaces aging air-magnetic 12.5 kV breakers in distribution switchgear with vacuum replacement circuit breakers to eliminate dangerous exposure to asbestos by removing hazardous arc chutes from the switchgear. Additionally, new vacuum breakers offer reduced maintenance requirements compared to the current breakers that are reaching their end of life period. Replacements are conducted on a prioritized basis by taking into account the age and condition of the equipment. The installation of the new vacuum breakers will decrease required maintenance and lower costs. The breakers will be purchased and replaced across the system over a six year period. The project funds cover both internal and external labor as well as the purchase of the vacuum replacement breakers.

Project Alternatives

As these are existing installations, replacement with in-kind equipment is the only feasible alternative. No other circuit breaker technologies exist that meet the replacement criteria. Inaction in replacing the breakers places the electrical distribution system at risk.

Technical Aspects

Removal of the aging breakers will occur while feeders are in outage. The replacement breakers are a new modern-style vacuum breakers complete with remote racking features which provide increased employee safety by removing the employee from the Arc flash zone while the breaker is being racked onto or off the energized bus.

Project Estimate Approach

Competitive bids were received from multiple vendors. The successful vendor was selected based on overall costs, suitability of the product, ability to meet asbestos remediation requirements, and the ability to meet production and installation requirements. External labor requirements include removing existing circuit breakers, performing asbestos remediation, and the initial installation of the new circuit breakers. Internal labor estimated based on needed support, which included performing switching to establish outages and initial testing and commissioning of the new circuit breakers. Approximately 80% of the cost is associated with the purchase of equipment, with the remaining 20% split evenly between internal and external installation labor.

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

Cost Year 01

Project	60002715	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	103,321			1,000	1,000	1,000	1,000	1,000	1,000	109,321		
120-Overtime-General	43,421			0	0	0	0	0	0	43,421		
350-Material Issues-Major	0			1,000	1,000	1,000	1,000	1,000	0	5,000		
370-Outside Services	390,729			0	0	27,000	33,500	30,500	30,000	511,729		
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	815			0	0	0	0	0	0	815		
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	-469	-387	-337	-1,194		
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	11,095			79	79	79	79	79	79	11,568		
914-Pension and Benefits Load	39,910			299	299	299	299	299	299	41,706		
915-Injuries and Damages Load	11,036			65	65	65	65	65	65	11,427		
918-San Juan AR-Labor	0			0	0	0	0	0	0	0		
921-Stores / Purchasing Load	24,996			111	111	111	111	111	0	25,552		
922-Minor Material Load	0			0	0	0	0	0	0	0		
925-E and S Loads	235,665			452	452	5,447	6,650	6,095	5,817	260,577		
926-A and G Loads	242,823			166	166	2,413	2,954	2,704	2,579	253,806		
928-AFUDC Debt Reg	54,265			1,025	520	305	225	185	161	56,687		
929-AFUDC - Equity Regular	67,949			1,110	563	331	244	201	174	70,573		
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	1,226,025			5,308	4,257	38,050	45,658	41,852	39,838	1,400,987		
825-Clearings	-3,180,557			-229,233	-116,745	-77,398	-61,528	-51,690	-45,764	-3,762,914		
Clr Sum	-3,180,557			-229,233	-116,745	-77,398	-61,528	-51,690	-45,764	-3,762,914		
Proj Net	-1,954,532			-223,925	-112,488	-39,347	-15,870	-9,838	-5,926	-2,361,927		

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

Cost Year 02

Project	60002715	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	109,321	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	133,321
120-Overtime-General	43,421	0	0	0	0	0	0	0	0	0	0	0	0	43,421
350-Material Issues-Major	5,000	0	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	15,000
370-Outside Services	511,729	1,000	30,000	41,228	41,228	41,228	30,000	30,000	30,000	30,000	30,000	0	0	816,412
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	815	0	0	0	0	0	0	0	0	0	0	0	0	815
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	-1,194	-291	-291	0	0	0	0	0	0	0	0	0	0	-1,776
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	11,568	157	157	157	157	157	157	157	157	157	157	157	157	13,449
914-Pension and Benefits Load	41,706	546	546	546	546	546	546	546	546	546	546	546	546	48,256
915-Injuries and Damages Load	11,427	124	124	124	124	124	124	124	124	124	124	124	124	12,920
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	25,552	0	173	173	173	173	173	173	173	173	173	173	0	27,282
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	260,577	735	6,495	8,650	8,650	8,650	6,495	6,495	6,495	6,495	6,495	735	543	327,509
926-A and G Loads	253,806	202	2,218	2,972	2,972	2,972	2,218	2,218	2,218	2,218	2,218	202	134	276,565
928-AFUDC Debt Reg	56,687	125	187	318	172	136	108	97	94	93	93	44	17	58,172
929-AFUDC - Equity Regular	70,573	164	245	416	226	178	142	127	123	122	122	57	23	72,520
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	1,400,987	4,761	42,853	57,584	57,249	57,165	42,963	42,936	42,930	42,928	42,927	5,038	3,544	1,843,865
825-Clearings	-3,762,914	0	0	-113,222	-71,242	-60,684	-47,393	-44,051	-43,210	-42,998	-42,945	-14,514	-6,287	-4,249,460
Clr Sum	-3,762,914	0	0	-113,222	-71,242	-60,684	-47,393	-44,051	-43,210	-42,998	-42,945	-14,514	-6,287	-4,249,460
Proj Net	-2,361,927	4,761	42,853	-55,638	-13,993	-3,519	-4,430	-1,114	-280	-70	-18	-9,477	-2,743	-2,405,595

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

Cost Year 03

Project	60002715	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	133,321	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	157,321
120-Overtime-General	43,421	0	0	0	0	0	0	0	0	0	0	0	0	43,421
350-Material Issues-Major	15,000	0	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0	0	24,000
370-Outside Services	816,412	0	111,779	111,779	111,779	111,779	111,779	111,779	111,779	111,779	111,779	111,779	123,221	2,057,424
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	815	0	0	0	0	0	0	0	0	0	0	0	0	815
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	-1,776	0	0	0	0	0	0	0	0	0	0	0	0	-1,776
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	13,449	157	157	157	157	157	157	157	157	157	157	157	157	15,331
914-Pension and Benefits Load	48,256	546	546	546	546	546	546	546	546	546	546	546	546	54,805
915-Injuries and Damages Load	12,920	124	124	124	124	124	124	124	124	124	124	124	124	14,413
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	27,282	0	173	173	173	173	173	173	173	173	173	0	0	28,839
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	327,509	543	22,196	22,196	22,196	22,196	22,196	22,196	22,196	22,196	22,196	22,004	24,201	574,025
926-A and G Loads	276,565	134	7,713	7,713	7,713	7,713	7,713	7,713	7,713	7,713	7,713	7,646	8,415	362,179
928-AFUDC Debt Reg	58,172	10	205	586	385	335	322	319	318	318	318	316	334	61,936
929-AFUDC - Equity Regular	72,520	9	185	529	347	302	290	287	287	286	286	285	301	75,913
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	1,843,865	3,523	146,078	146,804	146,421	146,325	146,301	146,295	146,293	146,293	146,293	144,857	159,299	3,468,645
825-Clearings	-4,249,460	0	0	-223,876	-165,785	-151,190	-147,523	-146,602	-146,370	-146,312	-146,297	-145,217	-155,778	-5,824,410
Clr Sum	-4,249,460	0	0	-223,876	-165,785	-151,190	-147,523	-146,602	-146,370	-146,312	-146,297	-145,217	-155,778	-5,824,410
Proj Net	-2,405,595	3,523	146,078	-77,072	-19,364	-4,865	-1,222	-307	-77	-19	-5	-360	3,520	-2,355,765

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**Project No: 60002912 San Clemente Station CO1**

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

<u>Construction Start Date</u>	9/1/2016	<u>Estimated Completion Date</u>	12/31/2018
<u>List Interim In-Service Dates</u>	N/A		

Project Need Justification

This project is to serve the area from Hwy 6 to Curfman Rd. and between Interstate 25 and the Rio Grande River in Valencia County by developing a new distribution substation. The new substation is recommended due to existing demand and is expected to support growth along the Hwy 6 and Hwy 314 corridors. Los Chavez, San Clemente, Los Lunas, and Los Morros Substations are currently providing the distribution delivery capacity for this area. San Clemente Substation will provide backup capacity to the aforementioned substations. Currently an outage of either the Los Lunas Substation or the Los Chavez Substation would overload the existing San Clemente Substation transformer by over 300 hours per year. This project will simplify operation of the system, by eliminating several supplemental cascading load transfers presently utilized, minimize outage restoration times, and allow distribution operations more certainty that adjacent facilities, required to accomplish the proposed restoration, will be available when needed.

Project Alternatives

Several alternatives were considered: The first two were to install a larger capacity transformer or a second unit at the existing San Clemente Substation site. The existing site is not large enough for either option. Modifying the easement to enlarge the site was not preferred by the land owner, so a new site was identified. The new site is close to the existing site, so minimal feeder modifications will be necessary. Another alternative considered was to upgrade the Los Lunas Substation. This site is also size restricted and would not eliminate the overload exposure for a Los Chavez substation outage, so this alternative was dismissed.

Technical Aspects

This project includes obtaining a new substation site near the 46 kV BN transmission line in the vicinity of the existing San Clemente Substation site, which is too small for a larger transformer and switchgear. The substation will consist of a new 115-12.47 kV, 22.4 MVA substation transformer and a four-breaker switchgear.

#### Project Estimate Approach

This project was estimated using the standard procedure used by System Engineering. A market value analysis is conducted to determine the land costs. Basic material is estimated using actual costs of past projects. These figures are updated in the estimating software periodically. For major equipment like transformers and switchgears we contacted our alliance vendors (SPX/Waukesha and Central Electric/AZZ respectively) and requested information regarding the costs and schedules of these major items. Labor and contractor estimates were created from past projects that are similar in nature, for this project past unit substations (Snow Vista and Scenic) were referenced. All overhead costs are standard and calculated using the approved corporate software.

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

Cost Year 01

Project	60002912	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	2,000	2,000	2,000	2,000	2,000	10,000		
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			5,000	5,000	5,000	5,000	22,500	10,000	52,500		
807-Non Refundable Contribution	0			0	0	0	0	0	0	0		
829-Construction Adjustment	0			0	0	0	-131	-131	-131	-394		
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	157	157	157	157	157	787		
914-Pension and Benefits Load	0			0	599	599	599	599	599	2,994		
915-Injuries and Damages Load	0			0	130	130	130	130	130	652		
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	534	534	534	534	534	2,670		
926-A and G Loads	0			416	582	582	582	2,038	998	5,200		
928-AFUDC Debt Reg	0			6	22	43	63	105	153	392		
929-AFUDC - Equity Regular	0			7	24	46	68	113	165	424		
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			5,429	9,050	9,092	9,003	28,046	14,606	75,225		
825-Clearings	0			0	0	0	0	0	-37,612	-37,612		
Clr Sum	0			0	0	0	0	0	-37,612	-37,612		
Proj Net	0			5,429	9,050	9,092	9,003	28,046	-23,007	37,612		

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

Cost Year 02

Project	60002912	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	10,000	0	0	0	0	0	0	0	25,000	23,000	11,000	30,000	30,000	129,000
	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	1,419	36,141	26,000	41,714	22,693	127,967
	370-Outside Services	0	0	0	0	0	0	0	0	90,303	122,919	122,919	122,919	122,919	581,977
	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	52,500	0	0	0	0	0	0	0	0	0	0	0	0	52,500
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-394	-169	-169	0	0	0	0	0	0	0	0	0	0	-732
	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	787	0	0	0	0	0	0	0	1,960	1,803	862	2,352	2,352	10,117
	914-Pension and Benefits Load	2,994	0	0	0	0	0	0	0	6,823	6,277	3,002	8,187	8,187	35,469
	915-Injuries and Damages Load	652	0	0	0	0	0	0	0	1,555	1,431	684	1,866	1,866	8,054
	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	245	6,252	4,498	7,217	3,926	22,138
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,670	0	0	0	0	0	0	0	24,395	36,781	31,578	39,751	36,099	171,275
	926-A and G Loads	5,200	0	0	0	0	0	0	0	7,844	12,234	10,747	13,079	11,801	60,905
	928-AFUDC Debt Reg	392	98	98	98	99	100	100	101	309	841	1,443	2,075	2,748	8,502
	929-AFUDC - Equity Regular	424	128	129	129	130	131	131	132	406	1,103	1,893	2,722	3,605	11,062
	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	75,225	57	58	227	229	230	231	233	160,259	248,782	214,625	271,882	246,196	1,218,234
	825-Clearings	-37,612	0	0	0	0	0	0	0	0	0	0	0	-1,180,621	-1,218,234
	Clr Sum	-37,612	0	0	0	0	0	0	0	0	0	0	0	-1,180,621	-1,218,234
	Proj Net	37,612	57	58	227	229	230	231	233	160,259	248,782	214,625	271,882	-934,425	0

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

Cost Year 03

Project	60002912	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	129,000	30,000	11,500	9,500	10,500	9,500	7,221	12,920	25,000	23,000	11,000	30,000	30,000	339,141
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	127,967	980	980	99,000	10,719	1,828	11,292	3,525	1,419	36,141	26,000	41,714	22,693	384,258
370-Outside Services	581,977	122,919	122,919	122,919	122,919	122,919	122,919	122,919	90,303	122,919	122,919	122,919	122,919	2,024,384
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	52,500	0	0	0	0	0	0	0	0	0	0	0	0	52,500
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	-732	0	0	0	0	0	0	0	0	0	0	0	0	-732
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	10,117	2,352	902	745	823	745	566	1,013	1,960	1,803	862	2,352	2,352	26,592
914-Pension and Benefits Load	35,469	8,187	3,138	2,593	2,865	2,593	1,971	3,526	6,823	6,277	3,002	8,187	8,187	92,817
915-Injuries and Damages Load	8,054	1,866	715	591	653	591	449	804	1,555	1,431	684	1,866	1,866	21,125
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	22,138	170	170	17,127	1,854	316	1,954	610	245	6,252	4,498	7,217	3,926	66,477
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	171,275	31,930	26,910	45,187	28,508	26,530	27,728	27,784	24,395	36,781	31,578	39,751	36,099	554,456
926-A and G Loads	60,905	10,342	9,099	15,551	9,686	9,021	9,504	9,365	7,844	12,234	10,747	13,079	11,801	189,179
928-AFUDC Debt Reg	8,502	273	777	1,420	2,082	2,566	3,046	3,539	4,003	4,553	5,174	5,824	6,515	48,273
929-AFUDC - Equity Regular	11,062	246	700	1,280	1,877	2,313	2,745	3,190	3,608	4,105	4,664	5,250	5,873	46,913
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	1,218,234	209,264	177,809	315,911	192,487	178,921	189,394	189,193	167,155	255,496	221,128	278,159	252,231	3,845,381
825-Clearings	-1,218,234	0	0	0	0	0	0	0	0	0	0	0	-2,627,148	-3,845,381
Clr Sum	-1,218,234	0	0	0	0	0	0	0	0	0	0	0	-2,627,148	-3,845,381
Proj Net	0	209,264	177,809	315,911	192,487	178,921	189,394	189,193	167,155	255,496	221,128	278,159	-2,374,916	0

**Project No: 60003115 Distr Cable Testing and Replace 2015**

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 12/31/2016

List Interim In-Service Dates

This project has multiple partial in-service dates throughout the two year project life that occur as each individual work order is completed for segments or groups of segments of replaced cable.

Project Need Justification

This project is for the targeted replacement of failing underground cable based on testing results for the Albuquerque metro and Santa Fe areas. Costs include engineering, project coordination, testing, material, and labor. This project spans a two year period with testing completed in the first year and cable replacements made shortly after. Approximately 46% of PNM distribution lines are of overhead construction and the remaining 54% underground. The risk of not replacing aging and failing cable includes more frequent and extended power outages which adversely affect reliability and customer satisfaction.

Project Alternatives

As an alternative to preemptive testing and replacing cable is to repair cable by cutting out the failed section of cable and splice new cable in its place, but only after multiple failures have occurred on sections of that cable. Generally, this practice results in the same customers experiencing multiple outages before the cable segments are replaced. Another option is to inject a substance to improve the integrity of insulation materials and extend the life of the cable. The deficiency of this technique is that it does not identify weak areas of cable first and does not address potential problems with cable splices from installation or the ends of cable where terminating equipment is installed. Cable testing is a superior approach providing predictive identification of cable failures before they occur, specific targeting and replacement of cable, reducing the number of outages experienced by customers, and maximizing efficiency by replacing only those elements of the cable that are failing.

Technical Aspects

The cable testing is performed by disconnecting a cable segment from the system and applying a specialized and calibrated equipment voltage to the cable. Based on partial discharge observed during this test, the condition of the cable is determined to be good, in need of repair (i.e. replacement of splices, terminations or limited sections of cable), or recommended for full replacement. The repairs or replacements are further categorized as an immediate need or scheduled need over approximately a next year. For cable which is scheduled for replacement it is either replaced in the same location or re-routed along an alternate path if necessary to accommodate future access and maintenance. This work involves boring, excavation, installation of a new cable, duct, splices, and terminations.

#### Project Estimate Approach

There are two considerations in estimating the project cost: the amount of testing and the amount of replacement work. Several factors are considered in determining the amount of testing to be performed including; the number of cable segment failures per year, the age of cable, and the cable type. The amount of cable replacement required is not known until the testing completed. However, past experience benchmarks about 48% of cable tested will require replacement. Costs are estimated based on historical cable replacement costs per foot. This project includes costs for outside services, including cable testing, results analysis and reporting, and boring in new conduit and cable. The project also includes company labor for items such as engineering, testing and construction coordination, switching, and cable termination. The typical breakdown of cost by categories is as follows: outside services 74%, company labor 8%, materials 16%, and company transportation 2%. The breakdown can vary depending on the site conditions and the type or condition of the cable being tested.

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

Cost Year 01

Project	60003115	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	101,542		12,592	13,973	10,396	11,767	8,764	10,051	169,085		
	120-Overtime-General	9,507		44	1,859	170	1,916	3,524	2,394	19,413		
	350-Material Issues-Major	152,776		40,127	121,762	236,545	62,821	39,967	8,571	662,568		
	370-Outside Services	732,079		23,744	42,247	26,845	39,749	24,397	7,248	896,310		
	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		4,568	3,110	5,720	4,870	3,772	4,065	26,104		
	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	-2,794	-2,441	-1,961	-7,196		
	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	9,030		994	1,246	832	1,077	967	979	15,125		
	914-Pension and Benefits Load	29,580		3,783	4,740	3,164	4,097	3,679	3,726	52,769		
	915-Injuries and Damages Load	8,511		824	1,032	689	892	801	811	13,561		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	44,355		4,462	13,540	26,304	6,986	4,444	953	101,044		
	922-Minor Material Load	16,280		0	0	0	0	0	0	16,280		
	925-E and S Loads	164,165		16,035	35,144	52,607	23,530	15,886	7,001	314,368		
	926-A and G Loads	86,405		6,745	15,221	23,269	10,077	6,691	2,690	151,099		
	928-AFUDC Debt Reg	16,713		798	919	1,258	1,341	1,167	935	23,132		
	929-AFUDC - Equity Regular	21,634		864	995	1,362	1,453	1,264	1,012	28,584		
	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	1,392,578		115,580	255,787	389,161	167,781	112,885	48,476	2,482,248		
	825-Clearings	-1,181,011		-132,064	-171,655	-241,257	-217,745	-184,190	-439,879	-2,567,800		
	Clr Sum	-1,181,011		-132,064	-171,655	-241,257	-217,745	-184,190	-439,879	-2,567,800		
	Proj Net	211,568		-16,484	84,132	147,904	-49,964	-71,304	-391,403	-85,552		

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

Cost Year 02

Project	60003115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	169,085	0	0	0	0	0	0	0	0	0	0	0	0	169,085
	120-Overtime-General	19,413	0	0	0	0	0	0	0	0	0	0	0	0	19,413
	350-Material Issues-Major	662,568	0	0	0	0	0	0	0	0	0	0	0	0	662,568
	370-Outside Services	896,310	0	0	0	0	0	0	0	0	0	0	0	0	896,310
	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	26,104	0	0	0	0	0	0	0	0	0	0	0	0	26,104
	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	-7,196	0	0	0	0	0	0	0	0	0	0	0	0	-7,196
	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	15,125	0	0	0	0	0	0	0	0	0	0	0	0	15,125
	914-Pension and Benefits Load	52,769	0	0	0	0	0	0	0	0	0	0	0	0	52,769
	915-Injuries and Damages Load	13,561	0	0	0	0	0	0	0	0	0	0	0	0	13,561
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	101,044	0	0	0	0	0	0	0	0	0	0	0	0	101,044
	922-Minor Material Load	16,280	0	0	0	0	0	0	0	0	0	0	0	0	16,280
	925-E and S Loads	314,368	0	0	0	0	0	0	0	0	0	0	0	0	314,368
	926-A and G Loads	151,099	0	0	0	0	0	0	0	0	0	0	0	0	151,099
	928-AFUDC Debt Reg	23,132	0	0	0	0	0	0	0	0	0	0	0	0	23,132
	929-AFUDC - Equity Regular	28,584	0	0	0	0	0	0	0	0	0	0	0	0	28,584
	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	2,482,248	0	0	0	0	0	0	0	0	0	0	0	0	2,482,248
	825-Clearings	-2,567,800	0	0	0	0	0	0	0	0	0	0	0	0	-2,567,800
	Clr Sum	-2,567,800	0	0	0	0	0	0	0	0	0	0	0	0	-2,567,800
	Proj Net	-85,552	0	0	0	0	0	0	0	0	0	0	0	0	-85,552

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

Cost Year 03

Project	60003115	Year	2018												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	169,085	0	0	0	0	0	0	0	0	0	0	0	0	169,085	
120-Overtime-General	19,413	0	0	0	0	0	0	0	0	0	0	0	0	19,413	
350-Material Issues-Major	662,568	0	0	0	0	0	0	0	0	0	0	0	0	662,568	
370-Outside Services	896,310	0	0	0	0	0	0	0	0	0	0	0	0	896,310	
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	26,104	0	0	0	0	0	0	0	0	0	0	0	0	26,104	
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	-7,196	0	0	0	0	0	0	0	0	0	0	0	0	-7,196	
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	15,125	0	0	0	0	0	0	0	0	0	0	0	0	15,125	
914-Pension and Benefits Load	52,769	0	0	0	0	0	0	0	0	0	0	0	0	52,769	
915-Injuries and Damages Load	13,561	0	0	0	0	0	0	0	0	0	0	0	0	13,561	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	101,044	0	0	0	0	0	0	0	0	0	0	0	0	101,044	
922-Minor Material Load	16,280	0	0	0	0	0	0	0	0	0	0	0	0	16,280	
925-E and S Loads	314,368	0	0	0	0	0	0	0	0	0	0	0	0	314,368	
926-A and G Loads	151,099	0	0	0	0	0	0	0	0	0	0	0	0	151,099	
928-AFUDC Debt Reg	23,132	0	0	0	0	0	0	0	0	0	0	0	0	23,132	
929-AFUDC - Equity Regular	28,584	0	0	0	0	0	0	0	0	0	0	0	0	28,584	
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	2,482,248	0	0	0	0	0	0	0	0	0	0	0	0	2,482,248	
825-Clearings	-2,567,800	0	0	0	0	0	0	0	0	0	0	0	0	-2,567,800	
Clr Sum	-2,567,800	0	0	0	0	0	0	0	0	0	0	0	0	-2,567,800	
Proj Net	-85,552	0	0	0	0	0	0	0	0	0	0	0	0	-85,552	

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***Project No: 60003116 Distr Cable Testing and Replace 2016***

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

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

List Interim In-Service Dates

This project has multiple partial in-service dates throughout the two year project life that occur as each individual work order is completed for segments or groups of segments of replaced cable.

Project Need Justification

This project is for the targeted replacement of failing underground cable based on testing results for the Albuquerque metro and Santa Fe areas. Costs include engineering, project coordination, testing, material, and labor. This project spans a two year period with testing completed in the first year and cable replacements made shortly after. Approximately 46% of PNM distribution lines are of overhead construction and the remaining 54% underground. The risk of not replacing aging and failing cable includes more frequent and extended power outages which adversely affect reliability and customer satisfaction.

Project Alternatives

As an alternative to preemptive testing and replacing cable is to repair cable by cutting out the failed section of cable and splice new cable in its place, but only after multiple failures have occurred on sections of that cable. Generally, this practice results in the same customers experiencing multiple outages before the cable segments are replaced. Another option is to inject a substance to improve the integrity of insulation materials and extend the life of the cable. The deficiency of this technique is that it does not identify weak areas of cable first and does not address potential problems with cable splices from installation or the ends of cable where terminating equipment is installed. Cable testing is a superior approach providing predictive identification of cable failures before they occur, specific targeting and replacement of cable, reducing the number of outages experienced by customers, and maximizing efficiency by replacing only those elements of the cable that are failing.

Technical Aspects

The cable testing is performed by disconnecting a cable segment from the system and applying a specialized and calibrated equipment voltage to the cable. Based on partial discharge observed during this test, the condition of the cable is determined to be good, in need of repair (i.e. replacement of splices, terminations or limited sections of cable), or recommended for full replacement. The repairs or replacements are further categorized as an immediate need or scheduled need over approximately a next year. For cable which is scheduled for replacement it is either replaced in the same location or re-routed along an alternate path if necessary to accommodate future access and maintenance. This work involves boring, excavation, installation of a new cable, duct, splices, and terminations.

#### Project Estimate Approach

There are two considerations in estimating the project cost: the amount of testing and the amount of replacement work. Several factors are considered in determining the amount of testing to be performed including; the number of cable segment failures per year, the age of cable, and the cable type. The amount of cable replacement required is not known until the testing completed. However, past experience benchmarks about 48% of cable tested will require replacement. Costs are estimated based on historical cable replacement costs per foot. This project includes costs for outside services, including cable testing, results analysis and reporting, and boring in new conduit and cable. The project also includes company labor for items such as engineering, testing and construction coordination, switching, and cable termination. The typical breakdown of cost by categories is as follows: outside services 74%, company labor 8%, materials 16%, and company transportation 2%. The breakdown can vary depending on the site conditions and the type or condition of the cable being tested.



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

Cost Year 01

Project	60003116	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	48,443		391	6,311	6,050	6,477	2,725	3,125	73,522		
	120-Overtime-General	2,846		0	582	57	600	1,096	744	5,926		
	350-Material Issues-Major	39,080		183	47,670	83,724	29,711	12,426	2,665	215,459		
	370-Outside Services	487,077		300	49,916	48,221	64,327	83,699	126,639	860,178		
	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		142	1,738	2,883	2,619	1,173	1,264	9,819		
	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	-3,874	-3,874	-3,874	-11,622		
	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	4,633		31	543	481	557	301	304	6,849		
	914-Pension and Benefits Load	17,626		117	2,064	1,829	2,119	1,144	1,158	26,057		
	915-Injuries and Damages Load	3,838		26	449	398	461	249	252	5,674		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	20,935		20	5,301	9,310	3,304	1,382	296	40,549		
	922-Minor Material Load	1,922		0	0	0	0	0	0	1,922		
	925-E and S Loads	112,220		220	20,216	26,574	19,771	19,020	25,188	223,209		
	926-A and G Loads	48,960		85	8,837	11,726	8,631	8,413	11,185	97,837		
	928-AFUDC Debt Reg	5,432		1,727	1,899	2,285	1,860	2,164	2,509	17,877		
	929-AFUDC - Equity Regular	2,797		1,871	2,057	2,475	2,014	2,344	2,717	16,275		
	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	795,810		5,112	147,583	196,014	138,577	132,262	174,173	1,589,531		
	825-Clearings	-65,490		0	0	-356,592	0	0	-721,663	-1,143,745		
	Clr Sum	-65,490		0	0	-356,592	0	0	-721,663	-1,143,745		
Proj Net		730,320		5,112	147,583	-160,579	138,577	132,262	-547,490	445,786		

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

Cost Year 02

Project	60003116	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	73,522	4,578	13,042	50,220	44,431	42,092	56,027	47,417	52,620	39,151	44,312	33,007	37,851	538,270
120-Overtime-General	5,926	76	76	165	5,192	899	0	165	7,001	643	7,215	13,272	9,014	49,644
350-Material Issues-Major	215,459	0	0	0	0	0	0	0	0	680,651	236,572	150,506	32,276	1,315,466
370-Outside Services	860,178	-3,184	-7,057	-706	-706	-706	-706	-706	-706	-1,431	-1,431	-1,431	-1,101	840,307
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	9,819	0	0	0	0	0	0	0	0	0	0	0	0	9,819
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	-11,622	-2,931	-2,931	0	0	0	0	0	0	0	0	0	0	-17,483
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	6,849	365	1,028	3,950	3,890	3,370	4,393	3,730	4,674	3,120	4,040	3,628	3,674	46,713
914-Pension and Benefits Load	26,057	1,270	3,580	13,750	13,542	11,732	15,290	12,985	16,271	10,860	14,062	12,630	12,790	164,817
915-Injuries and Damages Load	5,674	289	816	3,134	3,087	2,674	3,485	2,960	3,708	2,475	3,205	2,879	2,915	37,301
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	40,549	0	0	0	0	0	0	0	0	117,753	40,927	26,038	5,584	230,850
922-Minor Material Load	1,922	0	0	0	0	0	0	0	0	0	0	0	0	1,922
925-E and S Loads	223,209	652	2,205	13,539	13,332	11,532	15,070	12,778	16,045	141,210	59,131	41,182	18,705	568,589
926-A and G Loads	97,837	99	407	3,338	3,287	2,842	3,718	3,150	3,959	48,318	19,264	13,128	5,244	204,591
928-AFUDC Debt Reg	17,877	1,256	1,279	1,416	1,650	1,302	1,534	1,777	1,424	2,927	4,860	4,088	4,662	46,051
929-AFUDC - Equity Regular	16,275	1,647	1,678	1,857	2,164	1,708	2,012	2,331	1,868	3,839	6,375	5,362	6,115	53,230
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	1,589,531	4,117	14,125	90,663	89,870	77,445	100,821	86,588	106,864	1,049,515	438,532	304,288	137,730	4,090,088
825-Clearings	-1,143,745	0	0	0	-217,562	0	0	-232,696	0	0	-668,605	0	-1,862,803	-4,125,410
Clr Sum	-1,143,745	0	0	0	-217,562	0	0	-232,696	0	0	-668,605	0	-1,862,803	-4,125,410
Proj Net	445,786	4,117	14,125	90,663	-127,692	77,445	100,821	-146,108	106,864	1,049,515	-230,072	304,288	-1,725,073	-35,322

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

Cost Year 03

Project	60003116	Year	2018												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	538,270	0	0	0	0	0	0	0	0	0	0	0	0	538,270
	120-Overtime-General	49,644	0	0	0	0	0	0	0	0	0	0	0	0	49,644
	350-Material Issues-Major	1,315,466	0	0	0	0	0	0	0	0	0	0	0	0	1,315,466
	370-Outside Services	840,307	0	0	0	0	0	0	0	0	0	0	0	0	840,307
	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	9,819	0	0	0	0	0	0	0	0	0	0	0	0	9,819
	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	-17,483	0	0	0	0	0	0	0	0	0	0	0	0	-17,483
	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	46,713	0	0	0	0	0	0	0	0	0	0	0	0	46,713
	914-Pension and Benefits Load	164,817	0	0	0	0	0	0	0	0	0	0	0	0	164,817
	915-Injuries and Damages Load	37,301	0	0	0	0	0	0	0	0	0	0	0	0	37,301
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	230,850	0	0	0	0	0	0	0	0	0	0	0	0	230,850
	922-Minor Material Load	1,922	0	0	0	0	0	0	0	0	0	0	0	0	1,922
	925-E and S Loads	568,589	0	0	0	0	0	0	0	0	0	0	0	0	568,589
	926-A and G Loads	204,591	0	0	0	0	0	0	0	0	0	0	0	0	204,591
	928-AFUDC Debt Reg	46,051	0	0	0	0	0	0	0	0	0	0	0	0	46,051
	929-AFUDC - Equity Regular	53,230	0	0	0	0	0	0	0	0	0	0	0	0	53,230
	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	4,090,088	0	0	0	0	0	0	0	0	0	0	0	0	4,090,088
	825-Clearings	-4,125,410	0	0	0	0	0	0	0	0	0	0	0	0	-4,125,410
	Clr Sum	-4,125,410	0	0	0	0	0	0	0	0	0	0	0	0	-4,125,410
	Proj Net	-35,322	0	0	0	0	0	0	0	0	0	0	0	0	-35,322

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***Project No: 60003117 Distr Cable Testing and Replace 2017***

Company: 001-Electric Services  
Location: 600 Distribution

**Project Information**

Construction Start Date 1/1/2017 Estimated Completion Date 12/31/2018

List Interim In-Service Dates

This project has numerous partial in-service dates throughout the life of the project, that vary as completed.

Project Need Justification

Approximately 54% of PNM distribution lines are built as underground construction and this underground cable has a life expectancy of 30-40 years. This project provides for the targeted replacement of failing underground cable based upon cable testing results of those at the end of their useful lives. The risk of not replacing aging and failing cable includes more frequent and extended power outages which adversely affect reliability and customer satisfaction. This is a multi-year project with testing completed in the first year and cable replacements made over subsequent years.

Project Alternatives

An alternative to replacing failing cable is to inject a substance to improve the integrity of insulation materials and extend the life of the cable. This technique has shortcomings as it does not address potential problems with cable splices made during installation or the ends of cable where terminating equipment is installed. Cable testing is another alternative, providing predictive identification of cable failures before they occur, specifically targeting the replacement of cable segments. However, testing will not detect all cables that need replacement due to extensive corrosion or too many past failures, which have caused degradation to insulation of cable. In either of those cases, replacement is the better option without the need to perform cable testing first.

Technical Aspects

Cable is replaced either by pulling the cable from existing conduit and replacing it with new cable or, in the case of direct buried cable, by installing new conduit using directional boring equipment and pulling cable in the newly installed conduit. In some cases the new cable is installed along new routes to reduce the difficulty of the installation and/or future maintenance issues. This work will also involve boring, excavation, installing new cable and duct, splices, and terminations.

Project Estimate Approach

There are two considerations in estimating the project cost: the amount of testing and the amount of replacement work. Several factors are considered in determining the amount of testing to be performed including; the number of cable segment failures per year, the age of cable, and the cable type. The amount of cable replacement required is not known until the testing completed. However, past experience benchmarks about 48% of cable tested will require

replacement. Costs are estimated based on historical cable replacement costs per foot. This project includes costs for outside services, including cable testing, results analysis and reporting, and boring in new conduit and cable. The project also includes company labor for items such as engineering, testing and construction coordination, switching, and cable termination. The typical breakdown of cost by categories is as follows: outside services 74%, company labor 8%, materials 16%, and company transportation 2%. The breakdown can vary depending on the site conditions and the type or condition of the cable being tested.

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

Cost Year 01

Project	60003117	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	60003117	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	0	536	6,928	6,928	3,897	3,897	3,897	3,897	7,217	7,217	8,083	8,083	60,580
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	21,939	37,527	43,300	43,300	43,300	43,300	14,433	14,433	13,279	13,279	288,092
370-Outside Services	0	0	0	84,723	122,250	162,664	162,664	162,664	162,664	26,989	26,989	18,329	6,782	936,715
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	2,010	2,666	3,178	1,766	3,901	2,872	1,955	3,596	3,062	2,372	1,270	28,648
805-Land and Land Rights	0	0	0	0	0	0	0	0	2,887	693	693	693	693	5,658
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	42	543	543	306	306	306	306	566	566	634	634	4,749
914-Pension and Benefits Load	0	0	146	1,891	1,891	1,064	1,064	1,064	1,064	1,969	1,969	2,206	2,206	16,532
915-Injuries and Damages Load	0	0	33	431	431	242	242	242	242	449	449	503	503	3,768
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	3,795	6,492	7,491	7,491	7,491	7,491	2,497	2,497	2,297	2,297	49,840
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	531	22,871	33,168	40,942	41,352	41,154	40,978	10,602	10,499	8,718	6,289	257,104
926-A and G Loads	0	0	171	7,812	11,416	14,221	14,365	14,296	14,428	3,557	3,521	2,873	2,023	88,683
928-AFUDC Debt Reg	0	0	5	209	702	1,358	1,571	2,305	3,044	3,521	2,567	1,898	1,409	18,589
929-AFUDC - Equity Regular	0	0	6	274	921	1,781	2,061	3,023	3,993	4,618	3,367	2,489	1,848	24,383
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	3,481	154,083	225,448	279,032	282,213	282,614	286,248	80,708	77,828	64,372	47,315	1,783,341
825-Clearings	0	0	0	0	0	-198,613	0	0	0	-446,468	-328,503	-243,981	-424,332	-1,641,897
Clr Sum	0	0	0	0	0	-198,613	0	0	0	-446,468	-328,503	-243,981	-424,332	-1,641,897
Proj Net	0	0	3,481	154,083	225,448	80,419	282,213	282,614	286,248	-365,760	-250,675	-179,609	-377,017	141,444

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

Cost Year 03

Project	60003117	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	60,580	11,948	10,668	10,242	10,242	5,761	5,761	5,761	5,761	10,668	10,668	11,948	11,948	171,956
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	288,092	19,630	17,069	32,431	55,475	64,009	64,009	64,009	64,009	21,336	21,336	19,630	19,630	750,667
370-Outside Services	936,715	10,026	35,629	125,243	180,717	240,460	240,460	240,460	240,460	39,897	39,897	27,095	10,026	2,367,082
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	28,648	709	2,971	3,940	4,698	2,611	5,767	4,246	2,890	5,316	4,526	3,506	1,878	71,705
805-Land and Land Rights	5,658	853	853	1,963	4,267	4,267	4,267	4,267	4,267	1,024	1,024	1,024	1,024	34,761
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	4,749	937	836	803	803	452	452	452	452	836	836	937	937	13,481
914-Pension and Benefits Load	16,532	3,261	2,911	2,795	2,795	1,572	1,572	1,572	1,572	2,911	2,911	3,261	3,261	46,927
915-Injuries and Damages Load	3,768	743	664	637	637	358	358	358	358	664	664	743	743	10,696
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	49,840	3,396	2,953	5,611	9,597	11,074	11,074	11,074	11,074	3,691	3,691	3,396	3,396	129,865
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	257,104	9,073	13,584	33,809	49,030	60,523	61,129	60,837	60,576	15,673	15,521	12,887	9,297	659,043
926-A and G Loads	88,683	2,901	4,515	11,681	17,163	21,310	21,522	21,420	21,328	5,258	5,205	4,247	2,991	228,223
928-AFUDC Debt Reg	18,589	452	658	1,082	1,381	2,364	3,458	3,274	4,370	5,071	3,699	3,972	4,193	52,565
929-AFUDC - Equity Regular	24,383	408	593	975	1,245	2,131	3,117	2,951	3,940	4,571	3,335	3,581	3,780	55,010
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	1,783,341	64,336	93,906	231,212	338,050	416,891	422,945	420,680	421,057	116,917	113,314	96,227	73,102	4,591,980
825-Clearings	-1,641,897	0	0	-169,887	0	0	-492,447	0	0	-641,634	0	0	-1,646,115	-4,591,980
Clr Sum	-1,641,897	0	0	-169,887	0	0	-492,447	0	0	-641,634	0	0	-1,646,115	-4,591,980
Proj Net	141,444	64,336	93,906	61,324	338,050	416,891	-69,502	420,680	421,057	-524,716	113,314	96,227	-1,573,012	0

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***Project No: 60028015 TMS/OMS Upgrade Project***

Company: 001-Electric Services  
Location: 600 Distribution

**Project Information**

Construction Start Date 9/7/2015 Estimated Completion Date 7/31/2018

List Interim In-Service Dates

Work will occur in four phases in over 2 years. Each application will be cleared and placed into service when complete.

Project Need Justification

PNM is planning to move to ACS Advanced Distribution Management System (ADMS) from Oracle's Outage Management System v1.8.1.2.5. The current is no longer supported by the vendor. In addition, it no longer meets requirements and is vulnerable to security breaches. A upgraded system will provide better outage management restoration, more accurate public-facing information, and meet increased customer experience expectations. PNM customers expect timely notification of the outages and status of the outages for planning purposes and also reporting outages via mobile devices. This new upgrade will provide an efficient and effective two-way communication for PNM and its customers.

Project Alternatives

There are two options: 1) Continue to use the current ADMS 2) Purchase and install a new ADMS. Continued use of the current system is not viable because it is no longer supported by the vendor and there are no security upgrade patches to address evolving requirements. The best option, option 2, is to purchase and install a new ADMS. PNM evaluated products from three vendors, Oracle, ACS, and OSI to select the best ADMS to support PNM operations and provide functionality that meets the communication needs of our customers.

Technical Aspects

The project includes installation of new hardware and software, workstations, and servers. The new functionality of the system requires development of new processes to fully utilize the new tools. These processes include new ways of dispatching crews to outages, updating outage status, fault detection, isolation and restoration processes, dynamic update of the Estimated Restoration Time (ERT), and better outage communication and notifications to the customers.

Project Estimate Approach

Current project costs have been estimated by combining vendor quotes for the specific scope identified in original approved business requirements with internal cost estimates informed by past history for projects of this scale requiring identified required personnel. Based on demonstrations, initial quotes, and vendor responses to inquiries, Distribution Operations selected Advanced Control Systems' PRISM OMS system as the appropriate replacement for the current

Trouble Management System, originally provided by Oracle, but now out of support. Vendor quote for complete hardware, software, support, installation, consulting and taxes totaled \$2,980,000. Included in that total is an estimated \$350,000 in ACS-acquired/configured hardware as well as an additional \$130,000 in PNM-acquired materials and taxes. Internal labor consisting of project management, business analysis, DOC team work, interface development, and detailed design consultation is estimated at \$425,000. Outside services include approximately \$900,000 in ACS work, \$110,000 in contingencies for changes, \$37,000 in interface design work and a small amount for additional network infrastructure work, plus taxes. General expenses for travel, meetings, and other support are estimated at \$38,000. Non-internal labor loads are estimated at \$124,000 and capitalized interest is estimated at \$184,000.

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

Cost Year 01

Project	60028015	Year	2016									
	Cost_Type	Bal 6/30/16		Jul	Aug	Sep	Oct	Nov	Dec	Total		
	110-Straight Time-General	60,946		3,000	5,000	5,000	5,000	5,000	5,000	88,946		
	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	104,189		0	0	150,000	30,000	150,000	100,000	534,189		
	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	16		0	0	0	0	0	0	16		
	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	6,217		2,731	2,771	2,938	3,430	3,766	4,505	26,359		
	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	5,261		236	394	394	394	394	394	7,465		
	914-Pension and Benefits Load	18,597		898	1,497	1,497	1,497	1,497	1,497	26,980		
	915-Injuries and Damages Load	4,665		196	326	326	326	326	326	6,490		
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0		
	921-Stores / Purchasing Load	2,790		0	0	0	0	0	0	2,790		
	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	41,862		250	416	12,896	2,912	12,896	8,736	79,967		
	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	244,541		7,311	10,403	173,050	43,559	173,879	120,457	773,202		
	825-Clearings	0		0	0	0	0	0	0	0		
	Clr Sum	0		0	0	0	0	0	0	0		
Proj Net		244,541		7,311	10,403	173,050	43,559	173,879	120,457	773,202		

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

Cost Year 02

Project	60028015	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	88,946	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	500	0	99,446
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	534,189	0	0	0	150,000	0	0	150,000	0	0	0	120,000	0	954,189
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	16	0	0	0	0	0	0	0	0	0	0	0	0	16
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	26,359	4,824	4,392	4,898	5,117	5,667	5,477	6,020	6,421	6,269	6,522	6,628	7,174	95,768
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	7,465	78	78	78	78	78	78	78	78	78	78	39	0	8,288
914-Pension and Benefits Load	26,980	273	273	273	273	273	273	273	273	273	273	136	0	29,845
915-Injuries and Damages Load	6,490	62	62	62	62	62	62	62	62	62	62	31	0	7,143
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	2,790	0	0	0	0	0	0	0	0	0	0	0	0	2,790
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	79,967	67	67	67	10,147	67	67	10,147	67	67	67	8,098	0	108,897
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	773,202	6,305	5,873	6,379	166,678	7,148	6,957	167,581	7,902	7,749	8,003	135,432	7,174	1,306,382
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	773,202	6,305	5,873	6,379	166,678	7,148	6,957	167,581	7,902	7,749	8,003	135,432	7,174	1,306,382

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

Cost Year 03

Project	60028015	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	99,446	1,000	1,000	1,000	1,000	0	0	0	0	0	0	0	0	103,446
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	954,189	0	0	0	107,000	0	0	0	0	0	0	0	0	1,061,189
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	16	0	0	0	0	0	0	0	0	0	0	0	0	16
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	95,768	7,245	6,606	7,343	7,398	7,345	6,603	6,838	0	0	0	0	0	145,147
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	8,288	78	78	78	78	0	0	0	0	0	0	0	0	8,601
914-Pension and Benefits Load	29,845	273	273	273	273	0	0	0	0	0	0	0	0	30,937
915-Injuries and Damages Load	7,143	62	62	62	62	0	0	0	0	0	0	0	0	7,392
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	2,790	0	0	0	0	0	0	0	0	0	0	0	0	2,790
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	108,897	67	67	67	7,258	0	0	0	0	0	0	0	0	116,356
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	1,306,382	8,726	8,087	8,823	123,069	7,345	6,603	6,838	0	0	0	0	0	1,475,874
825-Clearings	0	0	0	0	0	0	0	-1,835,980	0	0	0	0	0	-1,835,980
Clr Sum	0	0	0	0	0	0	0	-1,835,980	0	0	0	0	0	-1,835,980
Proj Net	1,306,382	8,726	8,087	8,823	123,069	7,345	6,603	-1,829,142	0	0	0	0	0	-360,106

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**Project No: 60028017 DOC Updates Program Conversions**

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

Construction Start Date 1/1/2017 Estimated Completion Date 12/31/2018

List Interim In-Service Dates

Work will occur in phases in over 2 years. Each application will be cleared and placed into service when complete.

Project Need Justification

This project will upgrade servers, the server room and training area needed to support the Advanced Control Systems (ACS) Advanced Distribution Management System (ADMS). The upgraded system will provide better outage management restoration, more accurate public-facing information, and meet increased customer experience expectations. PNM customers expect timely notification of outages and status of the outages' completion for planning purposes. Helpful as well would be capabilities in reporting outages via mobile devices. This new upgrade will provide an efficient and effective two-way communication for PNM and its customers.

Project Alternatives

As an alternative, the continued use of the current system is not viable because it is no longer supported by the vendor and there are no security upgrade patches to address evolving requirements. NM evaluated products from three vendors, Oracle, ACS, and OSI Technology to select the best ADMS to support PNM operations and provide functionality that meets the communication needs of our customers.

Technical Aspects

The project includes installation of new hardware and software, workstations, and servers. The new functionality of the system requires development of new processes to fully utilize these new tools. These processes include new ways of dispatching crews to outages, updating outage status, fault detection, isolation and restoration processes, dynamic update of the estimated restoration time (ERT), and better outage communication and notifications to the customers.

Project Estimate Approach

Project costs have been estimated by combining vendor quotes for specific items of the identified scope in original approved business requirements. Internal cost estimates were informed by past history for projects of this scale requiring similar personnel.

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

Cost Year 01

Project	60028017	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	60028017	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	25,000	25,000	30,000	30,000	30,000	30,000	30,000	35,000	35,000	270,000	
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	55	172	287	434	575	694	859	981	1,183	5,240	
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	1,680	1,680	2,016	2,016	2,016	2,016	2,016	2,352	2,352	18,144	
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	26,735	26,852	32,303	32,450	32,591	32,710	32,875	38,333	38,535	293,384	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-220,038	-220,038	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-220,038	-220,038	
Proj Net	0	0	0	0	26,735	26,852	32,303	32,450	32,591	32,710	32,875	38,333	-181,503	73,346	

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

Cost Year 03

Project	60028017	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	1,000	1,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,000	0	19,000
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	270,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	0	1,095,000
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	5,240	496	773	1,217	1,536	1,813	1,930	2,309	2,523	2,735	3,130	3,322	3,580	30,605
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	78	78	157	157	157	157	157	157	157	157	78	0	1,490
914-Pension and Benefits Load	0	273	273	546	546	546	546	546	546	546	546	273	0	5,185
915-Injuries and Damages Load	0	62	62	124	124	124	124	124	124	124	124	62	0	1,182
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	18,144	5,107	5,107	5,174	5,174	5,174	5,174	5,174	5,174	5,174	5,174	5,107	0	74,861
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	293,384	82,017	82,294	84,219	84,538	84,814	84,931	85,311	85,525	85,737	86,131	84,843	3,580	1,227,322
825-Clearings	-220,038	0	0	0	0	0	0	0	0	0	0	0	-1,007,284	-1,227,322
Clr Sum	-220,038	0	0	0	0	0	0	0	0	0	0	0	-1,007,284	-1,227,322
Proj Net	73,346	82,017	82,294	84,219	84,538	84,814	84,931	85,311	85,525	85,737	86,131	84,843	-1,003,704	0

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***Project No: 60030013 Specialty Equip & Vehicle Co 001***

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

Construction Start Date                      9/2/2013                      Estimated Completion Date                      12/31/2021

List Interim In-Service Dates

Project consists of multiple work orders completed throughout the year with multiple in-service dates.

Project Need Justification

This project involves the purchase of specialty equipment and vehicles needed to perform distribution class construction and maintenance. In some instances, this will involve replacing aging and functionally obsolete equipment with newer equipment needed to perform system improvements and repairs. It will also involve the acquisition of equipment needed to support current construction programs.

Project Alternatives

The other alternative would be to use older equipment or lease the equipment. The purchases requested in this program have been evaluated by a multi-disciplinary group both for need and the benefits of purchase compared to leasing. Equipment that was identified as being more preferable to lease, will be leased and is therefore not included in the project. For the remaining items of this project, there are no other alternatives then to replace with new equipment.

Technical Aspects

Examples of purchases have included backyard excavators specifically needed to access distribution facilities in tight areas that vehicles cannot reach, tool trailers, and cable fault locators enabling crews to dig up the cable at the location of damage rather than operating at an extended length.

Project Estimate Approach

Project cost have been estimated using specifications for individual purchases with several criteria in mind including vendor experience with PNM and/or other utilities, ability to standardize equipment, ease of operation, warranty, and critical work requirements. In conjunction with PNM's Fleet Department, bids are solicited and evaluated prior to commitment of funds.

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

Cost Year 01

Project	60030013	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	441,651			0	0	0	0	0	0	441,651		
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	20,080			0	0	0	0	0	0	20,080		
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	91,672			0	0	0	0	0	0	91,672		
928-AFUDC Debt Reg	3,533			0	0	0	0	0	0	3,533		
929-AFUDC - Equity Regular	4,563			0	0	0	0	0	0	4,563		
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	561,499			0	0	0	0	0	0	561,499		
825-Clearings	-1,221,674			0	0	0	0	0	0	-1,221,674		
Clr Sum	-1,221,674			0	0	0	0	0	0	-1,221,674		
Proj Nei	-660,175			0	0	0	0	0	0	-660,175		

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

Cost Year 02

Project	60030013	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	441,651	0	0	0	0	0	0	681,000	0	0	0	681,000	0	1,803,651
	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	1,548	3,116	3,039	790	2,286	3,949	14,727
	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	20,080	0	0	0	0	0	0	0	0	0	0	0	0	20,080
	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	91,672	0	0	0	0	0	0	45,763	0	0	0	45,763	0	183,198
	928-AFUDC Debt Reg	3,533	0	0	0	0	0	0	0	0	0	0	0	0	3,533
	929-AFUDC - Equity Regular	4,563	0	0	0	0	0	0	0	0	0	0	0	0	4,563
	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	561,499	0	0	0	0	0	0	728,311	3,116	3,039	790	729,049	3,949	2,029,753
	825-Clearings	-1,221,674	0	0	0	0	0	0	0	0	-550,849	0	0	-917,404	-2,689,927
	Clr Sum	-1,221,674	0	0	0	0	0	0	0	0	-550,849	0	0	-917,404	-2,689,927
Proj Net		-660,175	0	0	0	0	0	0	728,311	3,116	-547,810	790	729,049	-913,455	-660,175

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

Cost Year 03

Project	60030013	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	2,198	2,198	2,198	2,198	0	0	0	0	0	8,792
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	1,803,651	0	0	0	241,805	0	241,805	0	0	0	0	0	0	2,287,261
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	14,727	0	0	0	552	1,066	1,438	1,984	1,917	1,860	481	467	483	24,976
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	172	172	172	172	0	0	0	0	0	689
914-Pension and Benefits Load	0	0	0	0	600	600	600	600	0	0	0	0	0	2,399
915-Injuries and Damages Load	0	0	0	0	137	137	137	137	0	0	0	0	0	547
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	20,080	0	0	0	0	0	0	0	0	0	0	0	0	20,080
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	183,198	0	0	0	16,397	148	16,397	148	0	0	0	0	0	216,288
928-AFUDC Debt Reg	3,533	0	0	0	0	0	0	0	0	0	0	0	0	3,533
929-AFUDC - Equity Regular	4,563	0	0	0	0	0	0	0	0	0	0	0	0	4,563
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	2,029,753	0	0	0	261,861	4,321	262,747	5,238	1,917	1,860	481	467	483	2,569,128
825-Clearings	-2,689,927	0	0	0	0	0	0	0	0	-403,458	0	0	-135,918	-3,229,303
Clr Sum	-2,689,927	0	0	0	0	0	0	0	0	-403,458	0	0	-135,918	-3,229,303
Proj Net	-660,175	0	0	0	261,861	4,321	262,747	5,238	1,917	-401,598	481	467	-135,435	-660,175

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***Project No: 60030515 General Services' Building Improvements Blanket***

Company: 001-Electric Services

Location: 600 Distribution

**Project Information**

Construction Start Date 2/1/2017 Estimated Completion Date 10/31/2021

List Interim In-Service Dates

None.

Project Need Justification

Corporate Security has identified gaps in PNM's security perimeter and camera surveillance coverage that could lead to vandalism or theft.

Project Alternatives

There are no alternatives identified at this time. Once the scope has been identified for a particular year, issue-specific alternatives will be considered. Ultimately, the improvements and scope will be determined by the Corporate Security supervisor and team, the general services manager, and qualified and experienced external vendors.

Technical Aspects

The scope of the project would include work to remedy these deficiencies and could include replacement cameras, access control upgrades, upgrading or replacing the video management system, building improvements for additional security, perimeter detection systems, yard improvements to deter theft, and new security alarm systems. Further technical aspects of the work will be identified when the scope of work has been determined.

Project Estimate Approach

The estimated cost for security upgrades is based on four cost categories: Design, renovation, materials and services (labor). Based on current contracts with construction companies and various 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 this project.

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

Cost Year 01

Project	60030515	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	50,000	35,647	25,000	35,645	15,000	161,292		
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	-372	-372	-372	-1,117		
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	4,160	2,966	2,080	2,966	1,248	13,419		
928-AFUDC Debt Reg	0			0	61	105	179	253	315	912		
929-AFUDC - Equity Regular	0			0	66	113	194	274	341	988		
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	54,287	38,831	27,080	38,765	16,532	175,495		
825-Clearings	0			0	-27,144	0	0	0	-148,351	-175,495		
Clr Sum	0			0	-27,144	0	0	0	-148,351	-175,495		
Proj Net	0			0	27,144	38,831	27,080	38,765	-131,819	0		

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

Cost Year 02

Project	60030515	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	161,292	0	0	0	251,000	225,000	48,000	48,000	200,000	200,000	0	200,000	200,000	1,533,292
	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	-1,117	0	0	0	0	0	0	0	0	0	0	0	0	-1,117
	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	13,419	0	0	0	16,867	15,120	3,226	3,226	13,440	13,440	0	13,440	13,440	105,618
	928-AFUDC Debt Reg	912	0	0	0	349	1,013	1,399	1,541	1,895	2,463	2,756	3,051	3,626	19,006
	929-AFUDC - Equity Regular	988	0	0	0	458	1,329	1,835	2,021	2,486	3,231	3,615	4,002	4,756	24,721
	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	175,495	0	0	0	268,674	242,462	54,460	54,788	217,821	219,134	6,371	220,493	221,821	1,681,520
	825-Clearings	-175,495	0	0	0	0	0	0	0	0	0	0	0	-1,506,025	-1,681,520
	Clr Sum	-175,495	0	0	0	0	0	0	0	0	0	0	0	-1,506,025	-1,681,520
	Proj Net	0	0	0	0	268,674	242,462	54,460	54,788	217,821	219,134	6,371	220,493	-1,284,204	0

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

Cost Year 03

Project	60030515	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	1,533,292	0	0	0	115,000	0	151,500	0	0	0	0	0	0	1,799,792
	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	-1,117	0	0	0	0	0	0	0	0	0	0	0	0	-1,117
	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	105,618	0	0	0	7,728	0	10,181	0	0	0	0	0	0	123,527
	928-AFUDC Debt Reg	19,006	0	0	0	160	321	534	748	0	0	0	0	0	20,769
	929-AFUDC - Equity Regular	24,721	0	0	0	144	290	481	674	0	0	0	0	0	26,311
	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	1,681,520	0	0	0	123,033	611	162,696	1,422	0	0	0	0	0	1,969,281
	825-Clearings	-1,681,520	0	0	0	0	0	0	-287,762	0	0	0	0	0	-1,969,281
	Clr Sum	-1,681,520	0	0	0	0	0	0	-287,762	0	0	0	0	0	-1,969,281
	Proj Net	0	0	0	0	123,033	611	162,696	-286,340	0	0	0	0	0	0

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**Project No: 60034214 Reeves Training Center**

Company: 001-Electric Services  
Location: 600 Distribution

Project Information

<u>Construction Start Date</u>	1/1/2016	<u>Estimated Completion Date</u>	12/31/2020
<u>List Interim In-Service Dates</u>	N/A		

Project Need Justification

A loss in experienced employees, quickly changing technology and Occupational Safety and Health Administration (OSHA) requirements has created the need for more effective training within PNM for employees. These less-experienced or apprentice-craft employees require varying levels of technical training and much of the training takes place on old and, broken equipment or on equipment and facilities that are already in service. This increases the risk of improper training, injury and damage to equipment. The funds for this project will provide a training center that will ensure our workforce has the skills to work with the new technology in a manner that protects the system, the assets and employees.

Project Alternatives

One alternatives includes continuing with the current method of classroom training held in areas not designed for the training topics and utilization of on-the-job training. The disadvantage here is that this would lead to employees not able to properly learn techniques that reduce overall risks.

Technical Aspects

The training facility will be designed to meet the training needs of all transportation and distribution crafts for the foreseeable future. In addition, the design will allow for the facility to be created in phases so that updates can be made over time based on changing priorities and funding levels. The initial phase will include a classroom and storage facility as well as basic elements required to meet and maintain OSHA compliance such as poles, transformers, manholes, and switchgears. Select equipment will be energized to provide a controlled environment for teaching employees how to work on energized equipment.

Project Estimate Approach

Estimate approach was based on a phased project plan. Estimate approach/phases include:FY2016 - Develop phased project plan which can be implemented as funding becomes available. Includes design documents, property surveying, permitting and soils testingFY2017 - Implement initial phases. Anticipated work would include site and infrastructure development, facility foundation and utility work, ordering of long lead materials/equipmentFY2018 - Building/facility constructionFY2019 - Do not anticipate fundingFY2020 - Complete construction of substation and line department equipment and apparatus installations for training yard

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

Cost Year 01

Project	60034214	Year	2016									
Cost_Type	Bal 6/30/16			Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General	0			0	0	5,000	5,000	5,000	3,000	18,000		
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	5,000	5,000	5,000	5,000	20,000		
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	0	394	394	394	236	1,417		
914-Pension and Benefits Load	0			0	0	1,497	1,497	1,497	898	5,389		
915-Injuries and Damages Load	0			0	0	326	326	326	196	1,174		
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	832	832	832	666	3,162		
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	13,049	13,049	13,049	9,996	49,141		
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	13,049	13,049	13,049	9,996	49,141		

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

Cost Year 02

Project	60034214	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	18,000	2,000	2,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	2,000	69,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	60,000	10,000	10,000	10,000	50,000	10,000	10,000	3,500	0	0	163,500
370-Outside Services	20,000	0	0	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	13,000	2,000	235,000
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	1,417	157	157	392	392	392	392	392	392	392	392	392	157	5,415
914-Pension and Benefits Load	5,389	546	546	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	1,365	546	19,307
915-Injuries and Damages Load	1,174	124	124	311	311	311	311	311	311	311	311	311	124	4,346
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	10,380	1,730	1,730	1,730	8,650	1,730	1,730	606	0	0	28,286
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	3,162	134	134	6,048	2,688	2,688	2,688	5,376	2,688	2,688	2,251	1,210	269	32,024
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	49,141	2,961	2,961	108,496	46,486	46,486	46,486	96,094	46,486	46,486	38,424	21,277	5,096	556,877
825-Clearings	0	0	-27,532	0	0	0	-137,742	0	0	0	-182,615	0	-104,494	-452,383
Clr Sum	0	0	-27,532	0	0	0	-137,742	0	0	0	-182,615	0	-104,494	-452,383
Proj Net	49,141	2,961	-24,571	108,496	46,486	46,486	-91,256	96,094	46,486	46,486	-144,191	21,277	-99,398	104,494

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

Cost Year 03

Project	60034214	Year	2018											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	69,000	6,000	6,000	7,000	7,000	7,000	7,000	7,000	7,000	5,000	5,000	5,000	5,000	143,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	163,500	0	30,000	0	0	30,000	0	0	30,000	0	0	0	0	253,500
370-Outside Services	235,000	0	25,000	25,000	25,000	25,000	20,000	15,000	15,000	25,000	13,000	2,000	2,000	427,000
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	5,415	470	470	549	549	549	549	549	549	392	392	392	392	11,217
914-Pension and Benefits Load	19,307	1,637	1,637	1,910	1,910	1,910	1,910	1,910	1,910	1,365	1,365	1,365	1,365	39,502
915-Injuries and Damages Load	4,346	373	373	435	435	435	435	435	435	311	311	311	311	8,949
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	28,286	0	5,190	0	0	5,190	0	0	5,190	0	0	0	0	43,856
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	32,024	403	4,099	2,150	2,150	4,166	1,814	1,478	3,494	2,016	1,210	470	470	55,947
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	556,877	8,884	72,770	37,045	37,045	74,251	31,709	26,373	63,579	34,084	21,277	9,538	9,538	982,970
825-Clearings	-452,383	0	0	-111,597	0	0	0	-140,487	0	0	0	0	-139,251	-843,718
Clr Sum	-452,383	0	0	-111,597	0	0	0	-140,487	0	0	0	0	-139,251	-843,718
Proj Net	104,494	8,884	72,770	-74,552	37,045	74,251	31,709	-114,114	63,579	34,084	21,277	9,538	-129,713	139,251