

Tier 2 Generation Capital Projects

# PNM Exhibit CM0-3

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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"

Monday, August 17, 2015

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## PNM EXHIBIT CMO-3-Generation Tier 2 Capital Projects

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Total

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Project No:76117744	Unit 1 Bottom Ash Casing Replacement .....	\$349,492	.....	\$0	.....	\$349,492....	160
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Project No:76416815	Unit 4 CEM Replacement .....	\$298,001 .....	\$0 .....	\$298,001....	230
Project No:76417515	Unit 4 Attemperator Spray Valve Replacement .....	\$528,403 .....	\$0 .....	\$528,403....	235
Project No:76417715	Unit 4 Automatic Voltage Regulator Replacement .....	\$501,907 .....	\$0 .....	\$501,907....	240
Project No:76428015	Unit 4 Foxboro I/A Version 8.8 NERC .....	\$157,759 .....	\$0 .....	\$157,759....	245
Project No:76428115	Unit 4 DCS Control Logic Mods 2015 .....	\$184,419 .....	\$0 .....	\$184,419....	250
Project No:76516036	Units 1&2 Maintenance Building Modification .....	\$100,472 .....	\$0 .....	\$100,472....	255
Project No:76516715	Units 1&2 Plant Air Compressor Replacement .....	\$385,570 .....	\$0 .....	\$385,570....	259
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Project No:76616136	Plant Common Replace Piping Containing Asbestos at NSW - 2016 .....	\$117,755 .....	\$0 .....	\$117,755....	277
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Project No:76617315	Common A&B Coal Reclaim System Refurbishment .....	\$262,260 .....	\$0 .....	\$262,260....	290
Project No:76617515	Common PBX Replacement and Backup Power .....	\$451,514 .....	\$0 .....	\$451,514....	295
Project No:76617932	Plant Common NERC CIP Change Management System .....	\$206,146 .....	\$0 .....	\$206,146....	300
Project No:76628039	Plant Common CAG Test Lab Equipment NERC .....	\$124,726 .....	\$0 .....	\$124,726....	305
Project No:76628415	Common NERC Add Vulnerability Module to SIEM .....	\$181,133 .....	\$0 .....	\$181,133....	310
Project No:76628634	Plant Common Foxboro Series 100 I/O and CP Replacement - Limestone .....	\$0 .....	\$109,180 .....	\$109,180....	315
Project No:77916136	RELAYS AND METERS - 2016 .....	\$0 .....	\$144,425 .....	\$144,425....	319

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Totals for Report..... \$15,367,076..... \$578,720..... \$15,945,796

## **Afton**

Company: 003  
Location: 707 Afton

## Project Information

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

Individual Capital Improvement Projects funded under this Project Fund will be placed In Service as appropriate. All Capital Improvement Projects funded under this Project Fund will be completed and In Service prior to December 31, 2015.

### Project Need Justification

This project fund shall encompass funds for materials and external labor to address smaller emergent capital improvement projects at Afton in 2015. The need for these projects are to perform improvements related to emergent safety, regulatory and/or performance issues. By performing these projects, PNM will ensure the ongoing safe, compliant, efficient, and reliable operation of the plant. The project currently in scope focuses on improvements to reduce wind loads and stress on the air-cooled condenser fans, steam turbine transmitter cold weather protections, hydrogen storage area safety improvements, and evaporation pond water management improvements.

## Project Alternatives

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

## Technical Aspects

Each capital improvement project will be properly evaluated and engineered to effectively address the emergent need in a cost effective manner. Capital improvement projects to be completed include: 1) installation of a chain-link fence and wind screens around the air-cooled condenser to reduce wind loads and torsional stress on the fans, 2) additional freeze protection improvements around the steam turbine to prevent cold-weather related transmitter failures, 3) installation of a new hydrogen storage area with a canopy to more safely handle and store hydrogen 12-packs used for cooling the gas turbine generator, and 4) installation of a new pump to more efficiently move water from north-to-south between evaporation ponds.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	70716015	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0			
350-Material Issues-Major	0	0	0	50,000	50,000	0	0	75,000	0	0	175,000			
370-Outside Services	0	0	0	50,000	50,000	0	0	75,000	0	0	175,000			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	0	0	0	8,320	8,320	0	0	12,480	0	0	29,120			
928-AFUDC Debt Reg	0	0	0	140	420	562	0	209	420	0	1,750			
929-AFUDC - Equity Regular	0	0	0	199	599	802	0	299	600	0	2,499			
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	108,659	109,339	1,364	0	162,988	1,020	0	383,369			
825-Clearings	0	0	0	0	0	-219,361	0	0	-164,008	0	-383,369			
Clr Sum	0	0	0	0	0	-219,361	0	0	-164,008	0	-383,369			
Proj Net	0	0	0	108,659	109,339	-217,997	0	162,988	-162,988	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	70716015	Year	2016												
	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	175,000	0	0	0	0	0	0	0	0	0	0	0	0	175,000
	370-Outside Services	175,000	0	0	0	0	0	0	0	0	0	0	0	0	175,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	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	29,120	0	0	0	0	0	0	0	0	0	0	0	0	29,120
	928-AFUDC Debt Reg	1,750	0	0	0	0	0	0	0	0	0	0	0	0	1,750
	929-AFUDC - Equity Regular	2,499	0	0	0	0	0	0	0	0	0	0	0	0	2,499
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	383,369	0	0	0	0	0	0	0	0	0	0	0	0	383,369
	825-Clearings	-383,369	0	0	0	0	0	0	0	0	0	0	0	0	-383,369
	Clr Sum	-383,369	0	0	0	0	0	0	0	0	0	0	0	0	-383,369
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	70716015	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	175,000	0	0	0	0	0	0	0	0	0	0	0	0	175,000
	370-Outside Services	175,000	0	0	0	0	0	0	0	0	0	0	0	0	175,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	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	29,120	0	0	0	0	0	0	0	0	0	0	0	0	29,120
	928-AFUDC Debt Reg	1,750	0	0	0	0	0	0	0	0	0	0	0	0	1,750
	929-AFUDC - Equity Regular	2,499	0	0	0	0	0	0	0	0	0	0	0	0	2,499
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	383,369	0	0	0	0	0	0	0	0	0	0	0	0	383,369
	825-Clearings	-383,369	0	0	0	0	0	0	0	0	0	0	0	0	-383,369
	Clr Sum	-383,369	0	0	0	0	0	0	0	0	0	0	0	0	-383,369
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 70717313 Afton Capital Improvements***

Company: 003  
Location: 707 Afton

**Project Information**

Construction Start Date 1/1/2014 Estimated Completion Date 5/19/2015

List Interim In-Service Dates

Individual Capital Improvement Projects funded under this Project Fund will be placed In Service as appropriate. All Capital Improvement Projects funded under this Project Fund were completed and In Service prior to December 31, 2014, except for one. The waste water treatment permeate line was not completed until early 2015, and was placed in service on May 19, 2015.

Project Need Justification

This project fund shall encompass funds for materials and external labor to address smaller emergent capital improvement projects at Afton in 2014. The need for these projects are to perform improvements related to emergent safety, regulatory and/or performance issues. By performing these projects, PNM will ensure the ongoing safe, compliant, efficient, and reliable operation of the plant. The project currently in scope focuses on improvements to waste water treatment.

Project Alternatives

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

Technical Aspects

These capital improvement projects are properly evaluated and engineered to effectively address the emergent needs in a cost effective manner. One capital improvement project, installation of a new water pipeline through the plant to connect the waste water treatment plant to large water storage tank, is an ongoing project that was extended in to 2015.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	70717313	Year	2015											
Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total			
110-Straight Time-General	971	0	0	0	0	0	0	0	0	0	971			
120-Overtime-General	721	0	0	0	0	0	0	0	0	0	721			
350-Material Issues-Major	112,895	0	0	0	0	0	0	0	0	0	112,895			
370-Outside Services	1,292,994	0	0	0	0	0	0	0	0	0	1,292,994			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	107,307	0	0	0	0	0	0	0	0	0	107,307			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0			
913-Payroll Taxes Load	114	0	0	0	0	0	0	0	0	0	114			
914-Pension and Benefits Load	277	0	0	0	0	0	0	0	0	0	277			
915-Injuries and Damages Load	41	0	0	0	0	0	0	0	0	0	41			
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0			
921-Stores / Purchasing Load	9,050	0	0	0	0	0	0	0	0	0	9,050			
922-Minor Material Load	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			
926-A and G Loads	126,034	0	0	0	0	0	0	0	0	0	126,034			
928-AFUDC Debt Reg	6,702	306	0	0	0	0	0	0	0	0	7,008			
929-AFUDC - Equity Regular	9,431	436	0	0	0	0	0	0	0	0	9,867			
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	1,666,537	742	0	0	0	0	0	0	0	0	1,667,279			
825-Clearings	-1,547,906	-119,373	0	0	0	0	0	0	0	0	-1,667,279			
Clr Sum	-1,547,906	-119,373	0	0	0	0	0	0	0	0	-1,667,279			
Proj Net	118,631	-118,631	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	70717313	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	971	0	0	0	0	0	0	0	0	0	0	0	0	971
	120-Overtime-General	721	0	0	0	0	0	0	0	0	0	0	0	0	721
	350-Material Issues-Major	112,895	0	0	0	0	0	0	0	0	0	0	0	0	112,895
	370-Outside Services	1,292,994	0	0	0	0	0	0	0	0	0	0	0	0	1,292,994
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	107,307	0	0	0	0	0	0	0	0	0	0	0	0	107,307
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	114	0	0	0	0	0	0	0	0	0	0	0	0	114
	914-Pension and Benefits Load	277	0	0	0	0	0	0	0	0	0	0	0	0	277
	915-Injuries and Damages Load	41	0	0	0	0	0	0	0	0	0	0	0	0	41
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	9,050	0	0	0	0	0	0	0	0	0	0	0	0	9,050
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	126,034	0	0	0	0	0	0	0	0	0	0	0	0	126,034
	928-AFUDC Debt Reg	7,008	0	0	0	0	0	0	0	0	0	0	0	0	7,008
	929-AFUDC - Equity Regular	9,867	0	0	0	0	0	0	0	0	0	0	0	0	9,867
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,667,279	0	0	0	0	0	0	0	0	0	0	0	0	1,667,279
	825-Clearings	-1,667,279	0	0	0	0	0	0	0	0	0	0	0	0	-1,667,279
	Clr Sum	-1,667,279	0	0	0	0	0	0	0	0	0	0	0	0	-1,667,279
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	70717313	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	971	0	0	0	0	0	0	0	0	0	0	0	0	971
	120-Overtime-General	721	0	0	0	0	0	0	0	0	0	0	0	0	721
	350-Material Issues-Major	112,895	0	0	0	0	0	0	0	0	0	0	0	0	112,895
	370-Outside Services	1,292,994	0	0	0	0	0	0	0	0	0	0	0	0	1,292,994
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	107,307	0	0	0	0	0	0	0	0	0	0	0	0	107,307
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	114	0	0	0	0	0	0	0	0	0	0	0	0	114
	914-Pension and Benefits Load	277	0	0	0	0	0	0	0	0	0	0	0	0	277
	915-Injuries and Damages Load	41	0	0	0	0	0	0	0	0	0	0	0	0	41
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	9,050	0	0	0	0	0	0	0	0	0	0	0	0	9,050
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	126,034	0	0	0	0	0	0	0	0	0	0	0	0	126,034
	928-AFUDC Debt Reg	7,008	0	0	0	0	0	0	0	0	0	0	0	0	7,008
	929-AFUDC - Equity Regular	9,867	0	0	0	0	0	0	0	0	0	0	0	0	9,867
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,667,279	0	0	0	0	0	0	0	0	0	0	0	0	1,667,279
	825-Clearings	-1,667,279	0	0	0	0	0	0	0	0	0	0	0	0	-1,667,279
	Clr Sum	-1,667,279	0	0	0	0	0	0	0	0	0	0	0	0	-1,667,279
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

***Project No: 70730515 Afton Security Equipment***

Company: 003  
Location: 707 Afton

**Project Information**

Construction Start Date 4/1/2016 Estimated Completion Date 12:00:00 AM

List Interim In-Service Dates

0

Project Need Justification

This project is for building security system improvements for the Afton facility. This funding was originally requested for 2015 but has been moved to April 2016. This project will add additional cameras, security access card readers to areas as system failure occurs or if business need dictates the addition. These proposed improvements will increase safety and security for the building occupants. The risk in not adding this equipment includes possible building occupant safety risk.

Currently, the facility security is unreliable and may present a safety hazard, and the site cannot be monitored by Albuquerque Downtown Headquarters' security operations center staff.

This project is for facility access control and equipment (additional cameras). Currently there is no access control within the facility grounds, perimeter doors and interior control center. Most facility doors are unlocked, have no locks, and there is no key control. The facility remains unlocked 24 hours a day.

There is a huge security and safety risk by not securing the facility, as well as Afton is coming in scope under NERC CIP 006-6/014-1 for Low Impact BES Cyber Systems and will require security safe guards to be put into place. Afton is 30 miles from the Mexico border and there have been risks identified with the security and safety of personnel and the facility. Camera additions are for areas that have blind spots, perimeter areas and internally at the plan itself.

Project Alternatives

Adding keyed locks to the facility would not be in the best interest of the company as having key control is very difficult and there is not security accountability as you have with access control. Vendors with previous experience with our systems and/or who are currently under contract (for design, installation & maintenance) to perform these services would be selected for the work.

Technical Aspects

This project includes purchase of CCTV security cameras, and security access card readers, cameras, and DVR monitoring equipment. The corporate security supervisor will work with the supply chain analyst to obtain bids from outside contractors that will meet PNM's contractual needs, and meet the functional and economic requirements of the project to install and test the new system.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	70730515	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	61,972	0	0	0	30,963	30,963	30,963	0	0	0	154,861			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	306	308	309	386	540	694	773	0	0	3,317			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0			
921-Stores / Purchasing Load	415	0	0	0	0	0	0	0	0	0	415			
922-Minor Material Load	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			
926-A and G Loads	5,156	0	0	0	2,576	2,576	2,576	0	0	0	12,884			
928-AFUDC Debt Reg	88	0	0	0	0	0	0	0	0	0	88			
929-AFUDC - Equity Regular	135	0	0	0	0	0	0	0	0	0	135			
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	67,766	306	308	309	33,926	34,079	34,233	773	0	0	171,700			
825-Clearings	0	0	0	0	0	0	0	-171,700	0	0	-171,700			
Clr Sum	0	0	0	0	0	0	0	-171,700	0	0	-171,700			
Proj Net	67,766	306	308	309	33,926	34,079	34,233	-170,927	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	70730515	Year	2016												
	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	154,861	0	0	0	0	0	0	0	0	0	0	0	0	154,861
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	3,317	0	0	0	0	0	0	0	0	0	0	0	0	3,317
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	415	0	0	0	0	0	0	0	0	0	0	0	0	415
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	12,884	0	0	0	0	0	0	0	0	0	0	0	0	12,884
	928-AFUDC Debt Reg	88	0	0	0	0	0	0	0	0	0	0	0	0	88
	929-AFUDC - Equity Regular	135	0	0	0	0	0	0	0	0	0	0	0	0	135
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	171,700	0	0	0	0	0	0	0	0	0	0	0	0	171,700
	825-Clearings	-171,700	0	0	0	0	0	0	0	0	0	0	0	0	-171,700
	Clr Sum	-171,700	0	0	0	0	0	0	0	0	0	0	0	0	-171,700
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	70730515	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	154,861	0	0	0	0	0	0	0	0	0	0	0	0	154,861
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Blls to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	3,317	0	0	0	0	0	0	0	0	0	0	0	0	3,317
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	415	0	0	0	0	0	0	0	0	0	0	0	0	415
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	12,884	0	0	0	0	0	0	0	0	0	0	0	0	12,884
	928-AFUDC Debt Reg	88	0	0	0	0	0	0	0	0	0	0	0	0	88
	929-AFUDC - Equity Regular	135	0	0	0	0	0	0	0	0	0	0	0	0	135
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	171,700	0	0	0	0	0	0	0	0	0	0	0	0	171,700
	825-Clearings	-171,700	0	0	0	0	0	0	0	0	0	0	0	0	-171,700
	Clr Sum	-171,700	0	0	0	0	0	0	0	0	0	0	0	0	-171,700
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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## **Bulk Power Building Alloc**

***Project No: 35730515 Aztec Security Equipment Upgrades***

Company: 003

Location: 357 Bulk Power Building Allocation

Project Information

Construction Start Date 6/1/2015

Estimated Completion Date 8/30/2015

List Interim In-Service Dates

NA

Project Need Justification

This project was a wedge/placeholder in the 2015 budget for possible building security system improvements for the Aztec office building. This has been moved to 2016 due to high priority requirements under NERC CIP 006-6. This project will add additional cameras in areas of need, security access card readers to areas for system failures or other business needs. These proposed improvements will increase safety and security for the building occupants and the facility. Some of the access control is failing and constantly being repaired. This is due to age and average wear and tear.

Some of the improvements in this project may be required to meet NERC compliance. This project improves safety and security as needed to assure a adequate monitoring of the facility. If the project is not completed, NERC violations could occur, possibly costing PNM monetary damages.

Project Alternatives

Alternatives are evaluated on a case-by-case basis on how to best replace failed equipment. Vendors with previous experience with our systems and/or who are currently under contract (for design, installation & maintenance) to perform these services would be selected for the work.

Technical Aspects

This project includes purchase of CCTV security cameras, and security access card readers, cameras, and DVR monitoring equipment. The corporate security supervisor will work with the supply chain analyst to obtain bids from outside contractors that will meet PNM's contractual needs, and meet the functional and economic requirements of the project.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	35730515	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	0	0	50,000	50,000	0	0	0	0	0	0	100,000			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	122	368	492	0	0	0	0	0	982			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	0	0	4,160	4,160	0	0	0	0	0	0	8,320			
928-AFUDC Debt Reg	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			
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	54,282	54,528	492	0	0	0	0	0	109,302			
825-Clearings	0	0	0	0	-109,302	0	0	0	0	0	-109,302			
Clr Sum	0	0	0	0	-109,302	0	0	0	0	0	-109,302			
Proj Net	0	0	54,282	54,528	-108,810	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	35730515	Year	2016												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	982	0	0	0	0	0	0	0	0	0	0	0	0	982	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	8,320	0	0	0	0	0	0	0	0	0	0	0	0	8,320	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	109,302	0	0	0	0	0	0	0	0	0	0	0	0	109,302	
825-Clearings	-109,302	0	0	0	0	0	0	0	0	0	0	0	0	-109,302	
Clr Sum	-109,302	0	0	0	0	0	0	0	0	0	0	0	0	-109,302	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	35730515	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	982	0	0	0	0	0	0	0	0	0	0	0	0	982
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	8,320	0	0	0	0	0	0	0	0	0	0	0	0	8,320
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	109,302	0	0	0	0	0	0	0	0	0	0	0	0	109,302
	825-Clearings	-109,302	0	0	0	0	0	0	0	0	0	0	0	0	-109,302
	Clr Sum	-109,302	0	0	0	0	0	0	0	0	0	0	0	0	-109,302
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 35730715 Aztec WPM NERC Security Upgrades***

Company: 003  
Location: 357 Bulk Power Building Allocation

Project Information

Construction Start Date 3/23/2015 Estimated Completion Date 8/30/2015

List Interim In-Service Dates

Project Need Justification

This project will add additional cameras and equipment for improved monitoring of the Wholesale Power Marketing area in the Aztec building which is a NERC-regulated area. These improvements are in accordance with NERC CIP 006 (version 5), High Impact Bulk Electric Systems (BES) which requires two measures of access control and additional physical security requirements to ensure compliance is met. This area falls within the scope of CIP 006-5. This project will ensure that compliance is met.

These project improvements are required to continue to effectively meet NERC compliance. This project improves safety and security as needed to assure adequate monitoring of the Aztec Wholesale Power Marketing area. If the project is not completed and there is a security equipment failure of any length, NERC violations could occur, possibly costing PNM monetary damages.

Project Alternatives

Vendors with previous experience with our systems and/or who are currently under contract (for design, installation & maintenance) to perform these services were selected for the work. PNM decided to work with these vendors after consideration of time constraints and complexities regarding existing access control systems and operating characteristics. In order to meet NERC CIP 006-6 requirements, additional access control methods are required to be in place at the WPM Trade floor, Server Room and PBX Room which all contain Physical Cyber Assets (PCA) for the BES Cyber System, where the vendor would need to have access. Working with new vendors would have increased the timing to address this issue, PNM would not have benefited from the competitive pricing of a long-term contract, and there would have been added risk due to not having experience with the new vendor. Additionally, there would have not been any added benefit.

Technical Aspects

This project includes purchase of CCTV security cameras, and security access card readers, cameras, and DVR monitoring equipment. The corporate security supervisor will work with the supply chain analyst to obtain bids from outside contractors that will meet PNM's contractual needs, and meet the functional and economic requirements of the project.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	35730715	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	0		0	50,000	50,000	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		0	4,160	4,160	0	0	0	0	0	0	8,320
	928-AFUDC Debt Reg	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
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	54,160	54,160	0	0	0	0	0	0	108,320
	825-Clearings	0		0	0	0	-108,320	0	0	0	0	0	-108,320
	Clr Sum	0		0	0	0	-108,320	0	0	0	0	0	-108,320
	Proj Net	0		0	54,160	54,160	-108,320	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	35730715	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	8,320	0	0	0	0	0	0	0	0	0	0	0	0	8,320
	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	108,320	0	0	0	0	0	0	0	0	0	0	0	0	108,320
	825-Clearings	-108,320	0	0	0	0	0	0	0	0	0	0	0	0	-108,320
	Clr Sum	-108,320	0	0	0	0	0	0	0	0	0	0	0	0	-108,320
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	35730715	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	8,320	0	0	0	0	0	0	0	0	0	0	0	0	8,320
	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	108,320	0	0	0	0	0	0	0	0	0	0	0	0	108,320
	825-Clearings	-108,320	0	0	0	0	0	0	0	0	0	0	0	0	-108,320
	Clr Sum	-108,320	0	0	0	0	0	0	0	0	0	0	0	0	-108,320
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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## **Four Corners**

***Project No: 71519207 Four Corners - 2007***

Company: 003  
Location: 715 Four Corners

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date

List Interim In-Service Dates

0

Project Need Justification

As the operator, Arizona Public Service (APS) identifies the projects into one of the following categories: Safety, Environmental, Regulatory, Strategic, Reliability. This project is to cover the PNM portion to address capital projects at Four Corners.

At the time a project is identified, the project is assigned to a budget category. The APS plant, financial and projects department work together to assign the category. Projects that fall under a specific safety regulation (i.e. OSHA), code or standard (i.e. Boiler Code, NFPA) or is an obvious risk to personnel or equipment, are classified as Safety (examples may include safety access platforms or electrical arc protection). Projects that fall under a specific environmental regulation (i.e. CAA, MATS, CCR) or the project is related to an environmental system (i.e. Baghouse, Scrubber, Ponds) are classified as Environmental (examples may include baghouse bag replacements or improvements to the sulfur scrubber controls). Projects that fall under a specific regulation (i.e. CIP, State Laws) are classified as Regulatory. Projects that have O&M savings or Equivalent. Availability Factor (EAF) impact are classified as Reliability (examples may include equipment such as pump, compressor or other equipment replacements). Projects related to Cultural, Community, Facilities, IT and Communications are classified as Strategic.

Project Alternatives

Numerous alternatives are considered on a project by project basis which are recorded in individual project request documentation. Alternatives are considered not as cost effective. The APS Capital Project process can be referenced for project alternatives evaluations. Often times, large scale projects will be preceded by an engineering study that typically outlines the number of alternatives and benefits/costs of the various alternatives.

Technical Aspects

Some of the larger projects are safety related, including Coal Silo Wall Replacement, High Energy Valve Replacement. Some projects are environmental compliance related including Baghouse Bags replacements, Scrubber Outlook Duct Liner replacement, Baghouse Fly Ash Removal Controls upgrades, Plant Perimeter Security Upgrade, Coal Burner Replacements. Some of the high dollar projects are related to operational reliability (driven by the system review assessment process), and include, GSU Centerphase Replacement., Main Air Compressor Replacement, LP Field Rewind and Generator Rewedge, Boiler Tube Bundle Replacement, Air Heater Basket Replacement, UPS Power Supply upgrade, Fan Rotor Replacement, Feedwater Heater Replacement.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

The System Health process is conducted by APS by breaking down its plants into many different process areas and systems. These process areas are assigned to subject matter experts (SME) or process teams who act as the system health experts. The SME/team has the responsibility to evaluate system health for these process areas based on equipment condition and performance parameters. The SME/team reviews and evaluates system issues including equipment reliability issues, forced outage related information, corrective maintenance history, work order backlog, vendor bulletins, etc. and assigns a system health color (Green, White, Yellow or Red) to the system. Systems or process areas with yellow or red colors require a system health plan to move the system back to white or green. The plan may include a capital project to address the system health. Full evaluations occur once a year. System colors and plans are evaluates at least quarterly by the Plant Health Committee.

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

All newly identified projects for 2007 were included in the aggregated total dollar amount assigned to the overall project budget, with PNM's associated internal costs added. The overall budget figure represents individual project costs, with separate costs estimates that are subject to project by project review and approval by the owners of Four Corners Power Plant.

Below is an estimated average estimate breakdown by cost category per project:

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

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	71519207	Year	2015									
	Cost_Type	Bal 3/31/15	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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	9,874,186	23,920	9,490	9,100	910	910	3,120	5,460	15,470	8,320	9,950,886
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	80,967	196	78	75	7	7	26	45	127	68	81,596
	928-AFUDC Debt Reg	258,846	207	252	277	292	296	303	316	346	379	261,515
	929-AFUDC - Equity Regular	115,629	296	359	396	417	423	433	452	494	541	119,440
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	10,329,627	24,619	10,179	9,848	1,627	1,637	3,882	6,273	16,436	9,308	10,413,436
	825-Clearings	-10,261,350	0	0	0	0	0	0	0	0	-152,087	-10,413,436
	Clr Sum	-10,261,350	0	0	0	0	0	0	0	0	-152,087	-10,413,436
	Proj Net	68,278	24,619	10,179	9,848	1,627	1,637	3,882	6,273	16,436	-142,779	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	71519207	Year	2016												
	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	9,950,886	0	0	0	0	0	0	0	0	0	0	0	0	9,950,886
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	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	81,596	0	0	0	0	0	0	0	0	0	0	0	0	81,596
	928-AFUDC Debt Reg	261,515	0	0	0	0	0	0	0	0	0	0	0	0	261,515
	929-AFUDC - Equity Regular	119,440	0	0	0	0	0	0	0	0	0	0	0	0	119,440
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	10,413,436	0	0	0	0	0	0	0	0	0	0	0	0	10,413,436
	825-Clearings	-10,413,436	0	0	0	0	0	0	0	0	0	0	0	0	-10,413,436
	Clr Sum	-10,413,436	0	0	0	0	0	0	0	0	0	0	0	0	-10,413,436
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	71519207	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	9,950,886	0	0	0	0	0	0	0	0	0	0	0	0	9,950,886
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	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	81,596	0	0	0	0	0	0	0	0	0	0	0	0	81,596
	928-AFUDC Debt Reg	261,515	0	0	0	0	0	0	0	0	0	0	0	0	261,515
	929-AFUDC - Equity Regular	119,440	0	0	0	0	0	0	0	0	0	0	0	0	119,440
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	10,413,436	0	0	0	0	0	0	0	0	0	0	0	0	10,413,436
	825-Clearings	-10,413,436	0	0	0	0	0	0	0	0	0	0	0	0	-10,413,436
	Clr Sum	-10,413,436	0	0	0	0	0	0	0	0	0	0	0	0	-10,413,436
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Lordsburg**

Company: 003  
Location: 703 Lordsburg

Construction Start Date	1/1/2016	Estimated Completion Date	12/31/2016
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Individual Capital Improvement Projects funded under this Project Fund will be placed In Service as appropriate. All Capital Improvement Projects funded under this Project Fund will be completed and In Service prior to December 31, 2016.

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

This project is included in the test period projected balances for CWIP related to generation, transmission, distribution, and general and intangible plant as of September 30, 2016 that are projected to be in service within five months after the end of the test period.

Pursuant to NMSA 1978, § 62-6-14(E), a utility is allowed to request to include in rate base CWIP for projects that are projected to be in service the lesser of five months after the end of the test period or 24 months after the end of the base period. PNM is requesting the inclusion of CWIP balances for projects such as this one with a projected in-service date by February 2017.

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

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

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	70316115	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	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
	929-AFUDC - Equity Regular	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
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	0	0	0	0
	825-Clearings	0		0	0	0	0	0	0	0	0	0	0
	Clr Sum	0		0	0	0	0	0	0	0	0	0	0
Proj Net		0		0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	70316115	Year	2016												
	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	40,000	0	30,000	40,000	0	0	34,320	0	0	0	144,320
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	3,328	0	2,496	3,328	0	0	2,855	0	0	0	12,007
	928-AFUDC Debt Reg	0	0	0	38	76	28	95	133	0	33	65	0	0	468
	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	43,366	76	32,524	43,423	133	0	37,208	65	0	0	156,795
	825-Clearings	0	0	0	0	-43,442	0	0	-76,080	0	0	-37,273	0	0	-156,795
	Clr Sum	0	0	0	0	-43,442	0	0	-76,080	0	0	-37,273	0	0	-156,795
	Proj Net	0	0	0	43,366	-43,366	32,524	43,423	-75,947	0	37,208	-37,208	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	70316115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	144,320	0	0	0	0	0	0	0	0	0	0	0	0	144,320
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	12,007	0	0	0	0	0	0	0	0	0	0	0	0	12,007
	928-AFUDC Debt Reg	468	0	0	0	0	0	0	0	0	0	0	0	0	468
	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	156,795	0	0	0	0	0	0	0	0	0	0	0	0	156,795
	825-Clearings	-156,795	0	0	0	0	0	0	0	0	0	0	0	0	-156,795
	Clr Sum	-156,795	0	0	0	0	0	0	0	0	0	0	0	0	-156,795
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Luna**



***Project No: 74416015 Luna Capital Improvements 2015***

Company: 003  
Location: 744 Luna

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 11/15/2015

List Interim In-Service Dates

Individual Capital Improvement Projects funded under this Project Fund will be placed In Service as appropriate. All Capital Improvement Projects funded under this Project Fund will be completed and In Service prior to December 31, 2015.

Project Need Justification

This project fund shall encompass funds for materials and external labor to address smaller emergent capital improvement projects at Luna in 2015. The need for these projects are to perform improvements related to emergent safety, regulatory and/or performance issues. By performing these projects, PNM will ensure the ongoing safe, compliant, efficient, and reliable operation of the plant. The projects currently in scope focus on improvements to the gas turbine inlet filtration systems, the high pressure stop/check valve and drum sightglasses, the emissions monitoring systems, and the cooling tower, as well as installation of a new Jib Crane and wellfield pump station air conditioner.

Project Alternatives

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

Technical Aspects

Each capital improvement project will be properly evaluated and engineered to effectively address the emergent need in a cost effective manner. The emergent needs include installing a new Jib Crane, Cooling Tower Upgrades, High-Pressure Drum Sightglasses, U1 Stop/Check Valve, new gas turbine inlet air filtration components, Wellfield Station Air Conditioner, and upgrading NOx Analyzers.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	74416015	Year	2015										
Cost_Type	Bal 3/31/15			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
120-Overtime-General	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
370-Outside Services	450,183			479,817	0	0	30,000	85,000	0	0	0	0	1,045,000
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	-300,092			-319,846	0	0	-19,998	-56,661	0	0	0	0	-696,597
913-Payroll Taxes Load	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
915-Injuries and Damages Load	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
921-Stores / Purchasing Load	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
925-E and S Loads	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
928-AFUDC Debt Reg	200			643	871	0	14	68	108	0	0	0	1,903
929-AFUDC - Equity Regular	306			919	1,243	0	20	96	154	0	0	0	2,738
937-San Juan AR - Other	0			0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	12,470			13,291	0	0	831	2,355	0	0	0	0	28,947
Cost Sum	163,067			174,824	2,114	0	10,867	30,857	261	0	0	0	381,990
825-Clearings	0			0	-340,005	0	0	0	-41,985	0	0	0	-381,990
Clr Sum	0			0	-340,005	0	0	0	-41,985	0	0	0	-381,990
Proj Net	163,067			174,824	-337,891	0	10,867	30,857	-41,724	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	74416015	Year	2016												
	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	1,045,000	0	0	0	0	0	0	0	0	0	0	0	0	1,045,000
	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	-696,597	0	0	0	0	0	0	0	0	0	0	0	0	-696,597
	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	1,903	0	0	0	0	0	0	0	0	0	0	0	0	1,903
	929-AFUDC - Equity Regular	2,738	0	0	0	0	0	0	0	0	0	0	0	0	2,738
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	28,947	0	0	0	0	0	0	0	0	0	0	0	0	28,947
	Cost Sum	381,990	0	0	0	0	0	0	0	0	0	0	0	0	381,990
	825-Clearings	-381,990	0	0	0	0	0	0	0	0	0	0	0	0	-381,990
	Clr Sum	-381,990	0	0	0	0	0	0	0	0	0	0	0	0	-381,990
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	74416015	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	1,045,000	0	0	0	0	0	0	0	0	0	0	0	0	1,045,000
	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	-696,597	0	0	0	0	0	0	0	0	0	0	0	0	-696,597
	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	1,903	0	0	0	0	0	0	0	0	0	0	0	0	1,903
	929-AFUDC - Equity Regular	2,738	0	0	0	0	0	0	0	0	0	0	0	0	2,738
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	28,947	0	0	0	0	0	0	0	0	0	0	0	0	28,947
	Cost Sum	381,990	0	0	0	0	0	0	0	0	0	0	0	0	381,990
	825-Clearings	-381,990	0	0	0	0	0	0	0	0	0	0	0	0	-381,990
	Clr Sum	-381,990	0	0	0	0	0	0	0	0	0	0	0	0	-381,990
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

***Project No: 74416115 Luna Capital Improvements 2016***

Company: 003  
Location: 744 Luna

**Project Information**

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

List Interim In-Service Dates

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

Project Need Justification

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

Project Alternatives

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

Technical Aspects

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

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	74416115	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	74416115	Year	2016												
	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	250,000	0	0	250,000	0	0	250,000	0	0	750,000
	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	-166,650	0	0	-166,650	0	0	-166,650	0	0	-499,950
	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	79	158	0	79	158	0	79	158	0	711
	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	6,925	0	0	6,925	0	0	6,925	0	0	20,775
	Cost Sum	0	0	0	0	90,354	158	0	90,354	158	0	90,354	158	0	271,536
	825-Clearings	0	0	0	0	0	-90,512	0	0	-90,512	0	0	-90,512	0	-271,536
	Clr Sum	0	0	0	0	0	-90,512	0	0	-90,512	0	0	-90,512	0	-271,536
	Proj Net	0	0	0	0	90,354	-90,354	0	90,354	-90,354	0	90,354	-90,354	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	74416115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	750,000	0	0	0	0	0	0	0	0	0	0	0	0	750,000
	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	-499,950	0	0	0	0	0	0	0	0	0	0	0	0	-499,950
	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	711	0	0	0	0	0	0	0	0	0	0	0	0	711
	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	20,775	0	0	0	0	0	0	0	0	0	0	0	0	20,775
	Cost Sum	271,536	0	0	0	0	0	0	0	0	0	0	0	0	271,536
	825-Clearings	-271,536	0	0	0	0	0	0	0	0	0	0	0	0	-271,536
	Clr Sum	-271,536	0	0	0	0	0	0	0	0	0	0	0	0	-271,536
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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## **Palo Verde**

**Project No: 72323009 PV Unit 3 CBIs**

Company: 003  
Location: 723 Palo Verde

Project Information

Construction Start Date 1/1/2007 Estimated Completion Date

List Interim In-Service Dates

0

Project Need Justification

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

This project funds PNM's portion of multiple projects on Unit 3 required to maintain the nuclear reactor, steam generator, turbine generator and related nuclear safety components.

Major initiatives include analysis for replacement of the cooling tower and the generator excitation system. The cooling tower is experiencing degradation from chemical constituents in the treated process water and will require replacement prior to the end of life for unit 3. This is the analysis phase of the project and there is no Alternative to this analysis. The generator excitation system is at its end-of-life and must be replaced. Run to failure is not an Alternative. Not only would it place the generator at catastrophic risk it would result in months of lost generation from Unit 3.

Project Alternatives

With a 10.2% ownership of PVNGS, PNM is one of seven parties to a Participation Agreement that runs through 2047. This contract provides the only alternative for review of capital projects recommended by the Operating Agent. Projects and alternatives are initially identified by Palo Verde. These alternatives are presented with Palo Verde's recommended action and the Owners then vote on the project. Under the Participation Agreement (PA), the Owner-Participants have reviewed and approved the recommended 2015 capital improvement budget. The PA provides a resolution process for any Owner(s) who disagree with the NRC Licensee and plant Operator's (Arizona Public Service) recommendations for Capital and O&M expenditures. The PA further provides that the contesting Owner must continue to pay their share of the Operating Agent's invoice for disputed projects pending final resolution.

Failure to do so places PNM in risk of default. This again, places Palo Verde in a unique situation with other Owner-Participant's review and approval decisions.

Cooling Tower Replacement- This is the analysis phase of the project and there is no Alternative to doing this analysis.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Generator Excitation System- System is at end-of life. Run to failure is not an alternative. Not only would it place the generator at catastrophic failure risk, it could result in months of lost generation.

Technical Aspects

Involves multiple projects related to maintaining the nuclear reactor, steam generation, turbine generator, and related nuclear safety components. Major initiatives include cooling tower replacement design and Unit 3 generator excitation replacement.

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

PNM is the operating agent for San Juan Generating Station and follows a similar process to APS at Palo Verde. Individual project estimates are developed by the Palo Verde project managers group.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	72323009	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	2,471,461		0	0	0	0	0	0	0	0	0	2,471,461
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	210,668		937	942	337	339	340	342	343	345	347	214,940
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	20,262		0	0	0	0	0	0	0	0	0	20,262
	928-AFUDC Debt Reg	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
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	2,702,391		937	942	337	339	340	342	343	345	347	2,706,663
	825-Clearings	-2,495,119		0	-134,574	0	0	0	0	0	0	0	-2,629,693
	Clr Sum	-2,495,119		0	-134,574	0	0	0	0	0	0	0	-2,629,693
	Proj Net	207,272		937	-133,632	337	339	340	342	343	345	347	76,970

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	72323009	Year	2016												
	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	2,471,461	0	0	0	0	0	0	0	0	0	0	0	0	2,471,461
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	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	214,940	364	341	364	352	385	369	380	379	368	380	369	382	219,373
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	20,262	0	0	0	0	0	0	0	0	0	0	0	0	20,262
	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	2,706,663	364	341	364	352	385	369	380	379	368	380	369	382	2,711,096
	825-Clearings	-2,629,693	0	0	0	0	0	0	0	0	0	0	0	0	-2,629,693
	Clr Sum	-2,629,693	0	0	0	0	0	0	0	0	0	0	0	0	-2,629,693
	Proj Net	76,970	364	341	364	352	385	369	380	379	368	380	369	382	81,403

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	72323009	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	2,471,461	0	0	0	0	0	0	0	0	0	0	0	0	2,471,461
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	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	219,373	412	414	0	0	0	0	0	0	0	0	0	0	220,199
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	20,262	0	0	0	0	0	0	0	0	0	0	0	0	20,262
	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	2,711,096	412	414	0	0	0	0	0	0	0	0	0	0	2,711,922
	825-Clearings	-2,629,693	0	0	0	0	0	0	0	0	0	0	0	0	-2,629,693
	Clr Sum	-2,629,693	0	0	0	0	0	0	0	0	0	0	0	0	-2,629,693
	Proj Net	81,403	412	414	0	0	0	0	0	0	0	0	0	0	82,229

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***Project No: 72423001 PALO VERDE CBI 2000***

Company: 003  
Location: 724 Palo Verde

Project Information

Construction Start Date 1/1/2000 Estimated Completion Date

List Interim In-Service Dates

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Project Need Justification

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

Nuclear Plants are, by NRC regulation, required to have multiple levels of physical security controlling access to various areas within the plant site. This project systematically replaced the physical security access controls throughout the common areas of the plant, due to aging and stricter control processes now in place.

Project Alternatives

With a 10.2% ownership of PVNGS, PNM is one of seven parties to a Participation Agreement that runs through 2047. This contract provides the only alternative for review of capital projects recommended by the Operating Agent. Projects and alternatives are initially identified by Palo Verde. These alternatives are presented with Palo Verde's recommended action and the Owners then vote on the project. Under the Participation Agreement (PA), the Owner-Participants have reviewed and approved the recommended 2015 capital improvement budget. The PA provides a resolution process for any Owner(s) who disagree with the NRC Licensee and plant Operator's (Arizona Public Service) recommendations for Capital and O&M expenditures. The PA further provides that the contesting Owner must continue to pay their share of the Operating Agent's invoice for disputed projects pending final resolution.

Failure to do so places PNM in risk of default. This again, places Palo Verde in a unique situation with other Owner-Participant's review and approval decisions.

The landscape of potential security threats to nuclear facilities has changed over the last few decades. In addition, the footprint of actual hardware and facilities within the different levels of security control zones has changed. Updating and integrating these security processes did not have any alternatives.

Technical Aspects

Involves multiple projects relating to the maintenance of the nuclear reactor, steam generation, turbine generator, and related nuclear safety components.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

The major initiative is the replacement of the security access and tracking system for the protected plant site.

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

PNM is the operating agent for San Juan Generating Station and follows a similar process to APS at Palo Verde. Individual project estimates are developed by the Palo Verde project managers group.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	72423001	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	13,046,834		38,641	38,641	38,641	0	0	0	0	0	0	13,162,757
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	-2,081,814		0	0	0	0	0	0	0	0	0	-2,081,814
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0		0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-260,303		0	0	0	0	0	0	0	0	0	-260,303
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	110,131		317	317	317	0	0	0	0	0	0	111,081
	928-AFUDC Debt Reg	623,354		51	152	253	0	0	0	0	0	0	623,809
	929-AFUDC - Equity Regular	624,574		73	217	361	0	0	0	0	0	0	625,225
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	12,062,775		39,082	39,326	39,572	0	0	0	0	0	0	12,180,755
	825-Clearings	-12,062,464		0	0	-118,292	0	0	0	0	0	0	-12,180,755
	Clr Sum	-12,062,464		0	0	-118,292	0	0	0	0	0	0	-12,180,755
	Proj Net	312		39,082	39,326	-78,719	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	72423001	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		13,162,757	0	0	0	0	0	0	0	0	0	0	0	0	13,162,757
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	-2,081,814	0	0	0	0	0	0	0	0	0	0	0	0	-2,081,814
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment		-260,303	0	0	0	0	0	0	0	0	0	0	0	0	-260,303
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	111,081	0	0	0	0	0	0	0	0	0	0	0	0	111,081
	928-AFUDC Debt Reg	623,809	0	0	0	0	0	0	0	0	0	0	0	0	623,809
929-AFUDC - Equity Regular		625,225	0	0	0	0	0	0	0	0	0	0	0	0	625,225
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	12,180,755	0	0	0	0	0	0	0	0	0	0	0	0	12,180,755
	825-Clearings	-12,180,755	0	0	0	0	0	0	0	0	0	0	0	0	-12,180,755
	Clr Sum	-12,180,755	0	0	0	0	0	0	0	0	0	0	0	0	-12,180,755
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	72423001	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	13,162,757	0	0	0	0	0	0	0	0	0	0	0	0	13,162,757
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	-2,081,814	0	0	0	0	0	0	0	0	0	0	0	0	-2,081,814
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	-260,303	0	0	0	0	0	0	0	0	0	0	0	0	-260,303
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	111,081	0	0	0	0	0	0	0	0	0	0	0	0	111,081
	928-AFUDC Debt Reg	623,809	0	0	0	0	0	0	0	0	0	0	0	0	623,809
	929-AFUDC - Equity Regular	625,225	0	0	0	0	0	0	0	0	0	0	0	0	625,225
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	12,180,755	0	0	0	0	0	0	0	0	0	0	0	0	12,180,755
	825-Clearings	-12,180,755	0	0	0	0	0	0	0	0	0	0	0	0	-12,180,755
	Clr Sum	-12,180,755	0	0	0	0	0	0	0	0	0	0	0	0	-12,180,755
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Reeves**

***Project No: 71316116 Unit 2 Boiler Feed Pump Upgrade***

Company: 003  
Location: 713 Reeves

Project Information

Construction Start Date 8/1/2015 Estimated Completion Date 12/15/2015

List Interim In-Service Dates

Project Need Justification

The boiler feed pump system for Reeves Station consists of two 100% redundant boiler feed pumps. Boiler feed pump 2A needs to be removed from service and rebuilt with upgraded components in order to provide 100% redundancy. The function of the unit's boiler feed pump system is to pump feed water into the boiler system so that the feed water can be converted into steam which drives the turbine. The turbine in turn drives the generator which generates electrical power.

Reeves Unit 2 Boiler Feed Pump 2A can no longer operate at low loads. As the boiler feed pump output pressure approaches boiler pressure, the pump stalls, causes severe pipe vibrations and sometimes trips. Because of this condition, the pump is not used. It appears that one of the pump stages has failed. The pump will be removed from service and shipped to a pump repair shop where the unit will be disassembled, inspected, and rebuilt with upgraded components. Once the pump is reinstalled it will be fully tested and commissioned.

The costs of this project include the labor for removal, reinstallation, testing, and commissioning as well as the vendor cost for the pump rebuild.

Project Alternatives

The do nothing option is not viable. Under these conditions the boiler feed pump cannot support minimum load operations which will reduce unit availability. In addition, if this pump continues to be operated the pump will fail causing severe damage to pump internal components. The only viable option is to overhaul the pump with upgraded components.

Technical Aspects

The function of the unit's boiler feed pump system is to pump feed water into the boiler system so that the feed water can be converted into steam which drives the turbine. The pump will be removed from service and shipped to a pump repair shop where the unit will be disassembled, inspected, rebuilt with upgraded components. Once the pump is reinstalled it will be fully tested and commissioned.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017  
Cost Year 01

Project	71316116	Year	2015											
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
	110-Straight Time-General	0		0	0	0	0	0	0	1,500	0	0	1,500	
	120-Overtime-General	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	
	370-Outside Services	0		0	0	0	0	0	0	75,000	105,386	0	180,386	
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0	
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0	
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0	
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0	
	807-Non Refundable Contribution	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	
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0	
	913-Payroll Taxes Load	0		0	0	0	0	0	0	101	0	0	101	
	914-Pension and Benefits Load	0		0	0	0	0	0	0	457	0	0	457	
	915-Injuries and Damages Load	0		0	0	0	0	0	0	74	0	0	74	
	918-San Juan AR-Labor	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	
	922-Minor Material Load	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	
	926-A and G Loads	0		0	0	0	0	0	0	6,365	8,768	0	15,133	
	928-AFUDC Debt Reg	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	
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0	
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0	
	Cost Sum	0		0	0	0	0	0	0	83,497	114,154	0	197,651	
	825-Clearings	0		0	0	0	0	0	0	0	0	-197,651	-197,651	
	Clr Sum	0		0	0	0	0	0	0	0	0	-197,651	-197,651	
	Proj Net	0		0	0	0	0	0	0	83,497	114,154	-197,651	0	

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	71316116	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,500	0	0	0	0	0	0	0	0	0	0	0	0	1,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	180,386	0	0	0	0	0	0	0	0	0	0	0	0	180,386
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	101	0	0	0	0	0	0	0	0	0	0	0	0	101
	914-Pension and Benefits Load	457	0	0	0	0	0	0	0	0	0	0	0	0	457
	915-Injuries and Damages Load	74	0	0	0	0	0	0	0	0	0	0	0	0	74
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	15,133	0	0	0	0	0	0	0	0	0	0	0	0	15,133
	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	197,651	0	0	0	0	0	0	0	0	0	0	0	0	197,651
	825-Clearings	-197,651	0	0	0	0	0	0	0	0	0	0	0	0	-197,651
	Clr Sum	-197,651	0	0	0	0	0	0	0	0	0	0	0	0	-197,651
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	71316116	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,500	0	0	0	0	0	0	0	0	0	0	0	0	1,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	180,386	0	0	0	0	0	0	0	0	0	0	0	0	180,386
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	101	0	0	0	0	0	0	0	0	0	0	0	0	101
	914-Pension and Benefits Load	457	0	0	0	0	0	0	0	0	0	0	0	0	457
	915-Injuries and Damages Load	74	0	0	0	0	0	0	0	0	0	0	0	0	74
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	15,133	0	0	0	0	0	0	0	0	0	0	0	0	15,133
	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	197,651	0	0	0	0	0	0	0	0	0	0	0	0	197,651
	825-Clearings	-197,651	0	0	0	0	0	0	0	0	0	0	0	0	-197,651
	Clr Sum	-197,651	0	0	0	0	0	0	0	0	0	0	0	0	-197,651
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 71316216 Unit 3 Boiler Feed Pump Upgrade***

Company: 003

Location: 713 Reeves

Project Information

Construction Start Date 8/1/2015

Estimated Completion Date 12/15/2015

List Interim In-Service Dates

Project Need Justification

The boiler feed pump system for Reeves Station consists of two 100% redundant boiler feed pumps. The function of the unit's boiler feed pump system is to pump feed water into the boiler system so that the feed water can be converted into steam this drives the turbine. The turbine in turn drives the generator which generates electrical power. Reeves Unit 3 Boiler feed pump 3B needs to be removed from service and rebuilt with upgraded components in order provide 100% redundancy and ensure the unit's availability

The 3B feed pump can no longer produce full capacity. As the unit nears full load, the pump begins cavitation thus requiring the operator to reduce load. Cavitation is the formation of vapor cavities in a liquid which if continues will overheat and severally damage the pump. Cavitation of the pump occurs when major components of the pump are worn out. The pump will be removed from service and shipped to a pump repair shop where the unit will be disassembled, inspected, and rebuilt with upgraded components. Once the pump is reinstalled it will be fully tested and commissioned.

The project funds covers the labor to remove and reinstall the plant and the costs for the vendor to repair the pump.

Project Alternatives

The do nothing option is not viable. Under these conditions the boiler feed pump cannot support full load operations which will reduce unit availability. In addition, if this pump continues to be operated the pump will fail causing severe damage to the pump's internal components. The only viable option is to overhaul the pump with upgraded components.

Technical Aspects

The function of the unit's boiler feed pump system is to pump feed water into the boiler system so that the feed water can be converted into steam which drives the turbine. The pump will be removed from service and shipped to a pump repair shop where the unit will be disassembled, inspected, rebuilt with upgraded components. Once the pump is reinstalled it will be fully tested and commissioned.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	71316216	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0		0	0	0	0	0	0	1,500	0	0	1,500
	120-Overtime-General	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
	370-Outside Services	0		0	0	0	0	0	0	75,000	105,386	0	180,386
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0		0	0	0	0	0	0	101	0	0	101
	914-Pension and Benefits Load	0		0	0	0	0	0	0	457	0	0	457
	915-Injuries and Damages Load	0		0	0	0	0	0	0	74	0	0	74
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		0	0	0	0	0	0	6,365	8,768	0	15,133
	928-AFUDC Debt Reg	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
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	83,497	114,154	0	197,651
	825-Clearings	0		0	0	0	0	0	0	0	0	-197,651	-197,651
	Clr Sum	0		0	0	0	0	0	0	0	0	-197,651	-197,651
	Proj Net	0		0	0	0	0	0	0	83,497	114,154	-197,651	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	71316216	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,500	0	0	0	0	0	0	0	0	0	0	0	0	1,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	180,386	0	0	0	0	0	0	0	0	0	0	0	0	180,386
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	101	0	0	0	0	0	0	0	0	0	0	0	0	101
	914-Pension and Benefits Load	457	0	0	0	0	0	0	0	0	0	0	0	0	457
	915-Injuries and Damages Load	74	0	0	0	0	0	0	0	0	0	0	0	0	74
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	15,133	0	0	0	0	0	0	0	0	0	0	0	0	15,133
	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	197,651	0	0	0	0	0	0	0	0	0	0	0	0	197,651
	825-Clearings	-197,651	0	0	0	0	0	0	0	0	0	0	0	0	-197,651
	Clr Sum	-197,651	0	0	0	0	0	0	0	0	0	0	0	0	-197,651
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	71316216	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,500	0	0	0	0	0	0	0	0	0	0	0	0	1,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	180,386	0	0	0	0	0	0	0	0	0	0	0	0	180,386
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	101	0	0	0	0	0	0	0	0	0	0	0	0	101
	914-Pension and Benefits Load	457	0	0	0	0	0	0	0	0	0	0	0	0	457
	915-Injuries and Damages Load	74	0	0	0	0	0	0	0	0	0	0	0	0	74
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	15,133	0	0	0	0	0	0	0	0	0	0	0	0	15,133
	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	197,651	0	0	0	0	0	0	0	0	0	0	0	0	197,651
	825-Clearings	-197,651	0	0	0	0	0	0	0	0	0	0	0	0	-197,651
	Clr Sum	-197,651	0	0	0	0	0	0	0	0	0	0	0	0	-197,651
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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## Rio Bravo

**Project No: 04616115 Mark VI e upgrade**

Company: 003  
Location: 046 Rio Bravo

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 12/31/2015

List Interim In-Service Dates

0

Project Need Justification

The current Mark V system, which is the electronic control system for the Rio Bravo Combustion Turbine, will no longer be supported by General Electric (GE). The Mark V control system controls and monitors all major processes of the combustion turbine. These major processes include fuel, air, combustion, speed and megawatt output. The current control system will be replaced with a GE Mark VI e control (retrofit) system. Since the Mark V is an obsolete system, limited spare parts and technical support will make it very difficult replace major components in the event of a major Mark V control system failure. This will seriously affect the unit's availability because it will take several months to install a retrofitted control system. The retrofit system will improve the reliability and longevity of the turbine control system. The requested funds will be allocated for the purchase of the retrofit system and the labor to install, test and commission the retrofit system. In addition, funds are included for PNM project management. PNM project management includes project work, cost and schedule tracking.

Project Alternatives

The do nothing option is not feasible. The current Mark V system will no longer be supported by GE. If the system should experience a major failure, limited spare parts and technical expertise will be available to replace major components and the unit will be in outage until a retrofit system is installed. This will have a significant negative affect on the unit's availability.

Another option that was considered was to replace the Mark V with a non-GE system. After thorough analysis, it was determined that this approach creates a technical risk because GE will no longer guarantee implementation of GE recommend technical changes (TILs) if a non-GE control system is implemented. TILs are software and hardware upgrades and changes recommended by GE to ensure reliable and safe operation of the combustion turbine. In addition, implementing a third-party retrofit system would cost more because a complete system replacement would be required. The third party option will require significant engineering, software, hardware and installation costs.

Furthermore, the Mark VI option is a standard within the PNM Gas & Oil generation fleet. This standardization provides for the availability of spare parts and the needed resources within PNM to maintain the Mark VI control system. The recommended option is the most cost effective option.

Technical Aspects

The project involves the purchase and installation of the Mark VI e System from General Electric (GE). The retrofit includes engineering, hardware, software and installation. In addition, GE will test and commission the Mark VI e system.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	04616115	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,041		0	0	0	0	0	0	0	0	0	2,041
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	5,643		0	0	0	0	0	0	0	0	0	5,643
	370-Outside Services	346,208		97,650	10,447	500	500	500	0	0	120,000	0	575,805
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	9,380		0	0	0	0	0	0	0	0	0	9,380
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	293		0	0	0	0	0	0	0	0	0	293
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	138		0	0	0	0	0	0	0	0	0	138
	914-Pension and Benefits Load	622		0	0	0	0	0	0	0	0	0	622
	915-Injuries and Damages Load	100		0	0	0	0	0	0	0	0	0	100
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	2,418		0	0	0	0	0	0	0	0	0	2,418
	922-Minor Material Load	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
	926-A and G Loads	0		8,124	869	42	42	42	0	0	9,984	0	19,102
	928-AFUDC Debt Reg	3,214		1,102	1,260	1,283	1,292	1,302	1,311	1,319	1,494	1,671	15,247
	929-AFUDC - Equity Regular	4,664		1,573	1,799	1,832	1,845	1,859	1,871	1,883	2,134	2,386	21,845
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	374,720		108,450	14,374	3,656	3,679	3,702	3,182	3,202	133,612	4,058	652,634
	825-Clearings	0		0	0	0	0	0	0	0	0	-652,634	-652,634
	Clr Sum	0		0	0	0	0	0	0	0	0	-652,634	-652,634
	Proj Net	374,720		108,450	14,374	3,656	3,679	3,702	3,182	3,202	133,612	-648,577	0



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	04616115	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,041	0	0	0	0	0	0	0	0	0	0	0	0	2,041
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	5,643	0	0	0	0	0	0	0	0	0	0	0	0	5,643
	370-Outside Services	575,805	0	0	0	0	0	0	0	0	0	0	0	0	575,805
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	9,380	0	0	0	0	0	0	0	0	0	0	0	0	9,380
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	293	0	0	0	0	0	0	0	0	0	0	0	0	293
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	138	0	0	0	0	0	0	0	0	0	0	0	0	138
	914-Pension and Benefits Load	622	0	0	0	0	0	0	0	0	0	0	0	0	622
	915-Injuries and Damages Load	100	0	0	0	0	0	0	0	0	0	0	0	0	100
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	2,418	0	0	0	0	0	0	0	0	0	0	0	0	2,418
	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	19,102	0	0	0	0	0	0	0	0	0	0	0	0	19,102
	928-AFUDC Debt Reg	15,247	0	0	0	0	0	0	0	0	0	0	0	0	15,247
	929-AFUDC - Equity Regular	21,845	0	0	0	0	0	0	0	0	0	0	0	0	21,845
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	652,634	0	0	0	0	0	0	0	0	0	0	0	0	652,634
	825-Clearings	-652,634	0	0	0	0	0	0	0	0	0	0	0	0	-652,634
	Clr Sum	-652,634	0	0	0	0	0	0	0	0	0	0	0	0	-652,634
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	04616115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,041	0	0	0	0	0	0	0	0	0	0	0	0	2,041
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	5,643	0	0	0	0	0	0	0	0	0	0	0	0	5,643
	370-Outside Services	575,805	0	0	0	0	0	0	0	0	0	0	0	0	575,805
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	9,380	0	0	0	0	0	0	0	0	0	0	0	0	9,380
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	293	0	0	0	0	0	0	0	0	0	0	0	0	293
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	138	0	0	0	0	0	0	0	0	0	0	0	0	138
	914-Pension and Benefits Load	622	0	0	0	0	0	0	0	0	0	0	0	0	622
	915-Injuries and Damages Load	100	0	0	0	0	0	0	0	0	0	0	0	0	100
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	2,418	0	0	0	0	0	0	0	0	0	0	0	0	2,418
	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	19,102	0	0	0	0	0	0	0	0	0	0	0	0	19,102
	928-AFUDC Debt Reg	15,247	0	0	0	0	0	0	0	0	0	0	0	0	15,247
	929-AFUDC - Equity Regular	21,845	0	0	0	0	0	0	0	0	0	0	0	0	21,845
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	652,634	0	0	0	0	0	0	0	0	0	0	0	0	652,634
	825-Clearings	-652,634	0	0	0	0	0	0	0	0	0	0	0	0	-652,634
	Clr Sum	-652,634	0	0	0	0	0	0	0	0	0	0	0	0	-652,634
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 04616315 Rio Bravo Liquid Fuel Sump Tank***

Company: 003  
Location: 046 Rio Bravo

**Project Information**

Construction Start Date 3/23/2015 Estimated Completion Date 8/30/2015

List Interim In-Service Dates

Project Need Justification

The liquid fuel tank sump at Rio Bravo has overflowed numerous times in the past. As a result, many gallons of liquid fuel have been dumped onto the surrounding surface. In order to rectify the issue and meet environmental compliance, the following work effort and upgrades will be implemented: remove contaminated soil, dispose of soil in an approved landfill, certify the integrity of the sump tank by an environmental PE engineer, install a containment reservoir and upgrade the monitoring equipment with a level and high alarm indication in the balance of plant (BOP) control system.

Project Alternatives

Do nothing option is not a viable option. Two options were evaluated. One option evaluated the concept of just removing contaminated soil and replacing the contaminated soil with clean soil. In addition, a level indicator would be installed. Although this is a viable option, if the tank were to overflow again and the high level alarm would fail, the soil would again become contaminated.

The selected option is the best option. It provides for containment of the liquid fuel during the worst event scenario in which the tank would overflow and the level alarm would fail. The removal and construction of the containment reservoir was accomplished on a time and material contract by one of PNM's qualified contractors due to the unknown volume of contaminated soil that had to be removed. A reservoir design was provided to the contractor to define the scope of work for the reservoir. Two vendor level indication systems were evaluated. Of the two systems evaluated, the one selected was best suited for the application. The costs of both systems were comparable.

Technical Aspects

In order to rectify the issue and meet environmental compliance, the following work effort and upgrades will be implemented: remove contaminated soil, dispose of the contaminated soil in an approved landfill, certify the integrity of the sump tank by an environmental PE engineer, and install a containment reservoir and upgrade monitoring equipment with a level and high alarm indication in the balance of plant control system.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017  
Cost Year 01

Project	04616315	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0		1,500	4,960	0	0	0	0	0	0	0	6,460
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0		0	3,000	0	0	0	0	0	0	0	3,000
	370-Outside Services	0		83,000	41,698	0	0	0	0	0	0	0	124,698
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0		101	334	0	0	0	0	0	0	0	435
914-Pension and Benefits Load		0		457	1,511	0	0	0	0	0	0	0	1,968
915-Injuries and Damages Load		0		74	244	0	0	0	0	0	0	0	318
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		7,030	4,132	0	0	0	0	0	0	0	11,162
	928-AFUDC Debt Reg	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
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V		0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		92,162	55,879	0	0	0	0	0	0	0	148,041
	825-Clearings	0		0	0	-148,041	0	0	0	0	0	0	-148,041
	Clr Sum	0		0	0	-148,041	0	0	0	0	0	0	-148,041
Proj Net		0		92,162	55,879	-148,041	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	04616315	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,460	0	0	0	0	0	0	0	0	0	0	0	0	6,460
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	3,000	0	0	0	0	0	0	0	0	0	0	0	0	3,000
	370-Outside Services	124,698	0	0	0	0	0	0	0	0	0	0	0	0	124,698
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	435	0	0	0	0	0	0	0	0	0	0	0	0	435
	914-Pension and Benefits Load	1,968	0	0	0	0	0	0	0	0	0	0	0	0	1,968
	915-Injuries and Damages Load	318	0	0	0	0	0	0	0	0	0	0	0	0	318
	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	11,162	0	0	0	0	0	0	0	0	0	0	0	0	11,162
	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	148,041	0	0	0	0	0	0	0	0	0	0	0	0	148,041
	825-Clearings	-148,041	0	0	0	0	0	0	0	0	0	0	0	0	-148,041
	Clr Sum	-148,041	0	0	0	0	0	0	0	0	0	0	0	0	-148,041
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	04616315	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,460	0	0	0	0	0	0	0	0	0	0	0	0	6,460
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	3,000	0	0	0	0	0	0	0	0	0	0	0	0	3,000
	370-Outside Services	124,698	0	0	0	0	0	0	0	0	0	0	0	0	124,698
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	435	0	0	0	0	0	0	0	0	0	0	0	0	435
	914-Pension and Benefits Load	1,968	0	0	0	0	0	0	0	0	0	0	0	0	1,968
	915-Injuries and Damages Load	318	0	0	0	0	0	0	0	0	0	0	0	0	318
	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	11,162	0	0	0	0	0	0	0	0	0	0	0	0	11,162
	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	148,041	0	0	0	0	0	0	0	0	0	0	0	0	148,041
	825-Clearings	-148,041	0	0	0	0	0	0	0	0	0	0	0	0	-148,041
	Clr Sum	-148,041	0	0	0	0	0	0	0	0	0	0	0	0	-148,041
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Company: 003  
Location: 046 Rio Bravo

<u>Construction Start Date</u>	8/1/2015	<u>Estimated Completion Date</u>	11/30/2015
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### Project Need Justification

## Project Alternatives

### Technical Aspects

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	04616815	Year	2015									
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	5,000	5,000	0	0	0	10,000
	120-Overtime-General	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
	370-Outside Services	0	0	0	0	0	15,000	60,000	56,753	0	0	131,753
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	337	337	0	0	0	674
	914-Pension and Benefits Load	0	0	0	0	0	1,523	1,523	0	0	0	3,046
	915-Injuries and Damages Load	0	0	0	0	0	246	246	0	0	0	492
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0	0	0	0	0	1,664	5,408	4,722	0	0	11,794
	928-AFUDC Debt Reg	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
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	23,770	72,514	61,475	0	0	157,759
	825-Clearings	0	0	0	0	0	0	0	0	-157,759	0	-157,759
	Clr Sum	0	0	0	0	0	0	0	0	-157,759	0	-157,759
	Proj Net	0	0	0	0	0	23,770	72,514	61,475	-157,759	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	04616815	Year	2016												
	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	0	0	0	0	0	10,000
	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	131,753	0	0	0	0	0	0	0	0	0	0	0	0	131,753
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	674	0	0	0	0	0	0	0	0	0	0	0	0	674
	914-Pension and Benefits Load	3,046	0	0	0	0	0	0	0	0	0	0	0	0	3,046
	915-Injuries and Damages Load	492	0	0	0	0	0	0	0	0	0	0	0	0	492
	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	11,794	0	0	0	0	0	0	0	0	0	0	0	0	11,794
	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	157,759	0	0	0	0	0	0	0	0	0	0	0	0	157,759
	825-Clearings	-157,759	0	0	0	0	0	0	0	0	0	0	0	0	-157,759
	Clr Sum	-157,759	0	0	0	0	0	0	0	0	0	0	0	0	-157,759
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	04616815	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	0	0	0	0	0	10,000
	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	131,753	0	0	0	0	0	0	0	0	0	0	0	0	131,753
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	674	0	0	0	0	0	0	0	0	0	0	0	0	674
	914-Pension and Benefits Load	3,046	0	0	0	0	0	0	0	0	0	0	0	0	3,046
	915-Injuries and Damages Load	492	0	0	0	0	0	0	0	0	0	0	0	0	492
	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	11,794	0	0	0	0	0	0	0	0	0	0	0	0	11,794
	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	157,759	0	0	0	0	0	0	0	0	0	0	0	0	157,759
	825-Clearings	-157,759	0	0	0	0	0	0	0	0	0	0	0	0	-157,759
	Clr Sum	-157,759	0	0	0	0	0	0	0	0	0	0	0	0	-157,759
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 04634015    Rio Bravo DCS Upgrade Remote Units***

Company:

Location:        046 Rio Bravo

Project Information

Construction Start Date    1/1/2015        Estimated Completion Date    5/30/2015

List Interim In-Service Dates

Project Need Justification

The remote distributed control system (DCS) at Rio Bravo is obsolete and no longer supported by General Electric (GE). The DCS consists of a General Electric programmable logic controller (PLC) that has been programmed to control all balance of plant (BOP) systems at the plant. Some of the BOP systems include the raw water system, deionized water system, fuel oil system and electrical 115KV, 5KV and 480V systems. The system will be upgraded to a DCS system. This control system is the standard for PNM and will allow for ease of maintenance and configuration because PNM personnel have been trained on the use and configuration of this system. If the system is not replaced, it will affect unit availability and require an extended outage to implement a temporary control system fix. Major cost components of the project include project management, DCS hardware and software, application software and construction. Construction includes outside labor, materials and equipment.

Project Alternatives

The do nothing option is not feasible. Not replacing the system will reduce unit availability if the existing system fails. The other option that was considered was to replace the BOP with a PLC. However, the PLC does not offer the same flexibility as the DCS system because it is not compatible with the existing DCS systems at other PNM plants and PNM personnel are not familiar with this technology. Additionally, the PLC is more costly to maintain and configure, which also requires an outside contractor to be hired to maintain it. Furthermore, there are existing spare parts for the DCS that are not available for the PLC. The DCS option is the most viable evaluated option in terms of cost, maintenance, and ease of adoption given that is installed at other sites.

Technical Aspects

The GE PLC will be replaced by the Foxboro DCS system. The DCS system will be purchased from Foxboro. The Foxboro scope of work will include all hardware, software and equipment configuration. PNM personnel will install the system and make database changes with assistance from Foxboro.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	04634015	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,929		1,500	10,500	26,000	0	0	0	0	0	0	44,929
	120-Overtime-General	2,557		0	0	1,000	0	0	0	0	0	0	3,557
	350-Material Issues-Major	3,231		0	0	0	0	0	0	0	0	0	3,231
	370-Outside Services	0		20,000	25,000	4,000	0	0	0	0	0	0	49,000
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	7,954		0	0	0	0	0	0	0	0	0	7,954
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	230		0	0	0	0	0	0	0	0	0	230
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		164	316	516	620	0	0	0	0	0	1,615
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	639		101	708	1,820	0	0	0	0	0	0	3,268
	914-Pension and Benefits Load	2,111		457	3,198	8,224	0	0	0	0	0	0	13,990
	915-Injuries and Damages Load	467		74	517	1,328	0	0	0	0	0	0	2,386
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	75		0	0	0	0	0	0	0	0	0	75
	922-Minor Material Load	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
	926-A and G Loads	0		1,789	2,954	2,579	0	0	0	0	0	0	7,322
	928-AFUDC Debt Reg	42		0	0	0	0	0	0	0	0	0	42
	929-AFUDC - Equity Regular	64		0	0	0	0	0	0	0	0	0	64
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	24,299		24,085	43,192	45,467	620	0	0	0	0	0	137,662
	825-Clearings	0		0	0	0	-137,662	0	0	0	0	0	-137,662
	Clr Sum	0		0	0	0	-137,662	0	0	0	0	0	-137,662
	Proj Net	24,299		24,085	43,192	45,467	-137,043	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	04634015	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	44,929	0	0	0	0	0	0	0	0	0	0	0	0	44,929
	120-Overtime-General	3,557	0	0	0	0	0	0	0	0	0	0	0	0	3,557
	350-Material Issues-Major	3,231	0	0	0	0	0	0	0	0	0	0	0	0	3,231
	370-Outside Services	49,000	0	0	0	0	0	0	0	0	0	0	0	0	49,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	7,954	0	0	0	0	0	0	0	0	0	0	0	0	7,954
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	230	0	0	0	0	0	0	0	0	0	0	0	0	230
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	1,615	0	0	0	0	0	0	0	0	0	0	0	0	1,615
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	3,268	0	0	0	0	0	0	0	0	0	0	0	0	3,268
	914-Pension and Benefits Load	13,990	0	0	0	0	0	0	0	0	0	0	0	0	13,990
	915-Injuries and Damages Load	2,386	0	0	0	0	0	0	0	0	0	0	0	0	2,386
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	75	0	0	0	0	0	0	0	0	0	0	0	0	75
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	7,322	0	0	0	0	0	0	0	0	0	0	0	0	7,322
	928-AFUDC Debt Reg	42	0	0	0	0	0	0	0	0	0	0	0	0	42
	929-AFUDC - Equity Regular	64	0	0	0	0	0	0	0	0	0	0	0	0	64
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	137,662	0	0	0	0	0	0	0	0	0	0	0	0	137,662
	825-Clearings	-137,662	0	0	0	0	0	0	0	0	0	0	0	0	-137,662
	Clr Sum	-137,662	0	0	0	0	0	0	0	0	0	0	0	0	-137,662
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	04634015	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	44,929	0	0	0	0	0	0	0	0	0	0	0	0	44,929
	120-Overtime-General	3,557	0	0	0	0	0	0	0	0	0	0	0	0	3,557
	350-Material Issues-Major	3,231	0	0	0	0	0	0	0	0	0	0	0	0	3,231
	370-Outside Services	49,000	0	0	0	0	0	0	0	0	0	0	0	0	49,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	7,954	0	0	0	0	0	0	0	0	0	0	0	0	7,954
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	230	0	0	0	0	0	0	0	0	0	0	0	0	230
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	1,615	0	0	0	0	0	0	0	0	0	0	0	0	1,615
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	3,268	0	0	0	0	0	0	0	0	0	0	0	0	3,268
	914-Pension and Benefits Load	13,990	0	0	0	0	0	0	0	0	0	0	0	0	13,990
	915-Injuries and Damages Load	2,386	0	0	0	0	0	0	0	0	0	0	0	0	2,386
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	75	0	0	0	0	0	0	0	0	0	0	0	0	75
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	7,322	0	0	0	0	0	0	0	0	0	0	0	0	7,322
	928-AFUDC Debt Reg	42	0	0	0	0	0	0	0	0	0	0	0	0	42
	929-AFUDC - Equity Regular	64	0	0	0	0	0	0	0	0	0	0	0	0	64
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	137,662	0	0	0	0	0	0	0	0	0	0	0	0	137,662
	825-Clearings	-137,662	0	0	0	0	0	0	0	0	0	0	0	0	-137,662
	Clr Sum	-137,662	0	0	0	0	0	0	0	0	0	0	0	0	-137,662
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**San Juan**

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76116214 Unit 1 Reheater***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 7/1/2015

List Interim In-Service Dates

0

Project Need Justification

The boiler is second only to the turbine-generator in ranking of critical assets in a coal fired generating unit. Major maintenance activities on this asset meet the criteria for capitalization. These major maintenance activities occur during planned unit outages with durations between 20 and 50 days. San Juan Unit 1 has a planned outage of 50 days in 2015. The scope of work is driven by performance issues that have resulted in unscheduled and forced outages. These investments will address reliability issues.

This is a major maintenance activity designed to return the asset from worn conditions back to original design specification.

Project Alternatives

This activity involves the removal and replacement of in-kind equipment with some material upgrades and design improvements to address known problems within the boiler, and there are no alternatives to this work. Operational alternatives would be to reduce unit output and/or accept a lower unit reliability but these are not viable alternatives because the system demands this unit operate at its capability.

Technical Aspects

Remove bottom loop of primary superheaters. Replace bottom loops of front and rear bundles with shorter loops. Remove tubes 1-8 on all division wall panels.

This project is complete so the costs being reported are actual costs and not estimated costs.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116214	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	147,332		0	0	0	0	0	0	0	0	0	147,332
	370-Outside Services	0		0	0	273,000	0	0	0	0	0	0	273,000
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	981		0	0	0	0	0	0	0	0	0	981
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,692		0	0	0	0	0	0	0	0	0	2,692
	926-A and G Loads	3,492		0	0	6,470	0	0	0	0	0	0	9,962
	928-AFUDC Debt Reg	807		204	205	387	0	0	0	0	0	0	1,603
	929-AFUDC - Equity Regular	1,169		291	293	552	0	0	0	0	0	0	2,306
	937-San Juan AR - Other	-77,249		0	0	-139,735	0	0	0	0	0	0	-216,984
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	79,225		496	499	140,674	0	0	0	0	0	0	220,893
	825-Clearings	0		0	0	-220,893	0	0	0	0	0	0	-220,893
	Clr Sum	0		0	0	-220,893	0	0	0	0	0	0	-220,893
	Proj Net	79,225		496	499	-80,219	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116214	Year	2016												
	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	147,332	0	0	0	0	0	0	0	0	0	0	0	0	147,332
	370-Outside Services	273,000	0	0	0	0	0	0	0	0	0	0	0	0	273,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	981	0	0	0	0	0	0	0	0	0	0	0	0	981
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,692	0	0	0	0	0	0	0	0	0	0	0	0	2,692
	926-A and G Loads	9,962	0	0	0	0	0	0	0	0	0	0	0	0	9,962
	928-AFUDC Debt Reg	1,603	0	0	0	0	0	0	0	0	0	0	0	0	1,603
	929-AFUDC - Equity Regular	2,306	0	0	0	0	0	0	0	0	0	0	0	0	2,306
	937-San Juan AR - Other	-216,984	0	0	0	0	0	0	0	0	0	0	0	0	-216,984
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	220,893	0	0	0	0	0	0	0	0	0	0	0	0	220,893
	825-Clearings	-220,893	0	0	0	0	0	0	0	0	0	0	0	0	-220,893
	Clr Sum	-220,893	0	0	0	0	0	0	0	0	0	0	0	0	-220,893
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116214	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	147,332	0	0	0	0	0	0	0	0	0	0	0	0	147,332
	370-Outside Services	273,000	0	0	0	0	0	0	0	0	0	0	0	0	273,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	981	0	0	0	0	0	0	0	0	0	0	0	0	981
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,692	0	0	0	0	0	0	0	0	0	0	0	0	2,692
	926-A and G Loads	9,962	0	0	0	0	0	0	0	0	0	0	0	0	9,962
	928-AFUDC Debt Reg	1,603	0	0	0	0	0	0	0	0	0	0	0	0	1,603
	929-AFUDC - Equity Regular	2,306	0	0	0	0	0	0	0	0	0	0	0	0	2,306
	937-San Juan AR - Other	-216,984	0	0	0	0	0	0	0	0	0	0	0	0	-216,984
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	220,893	0	0	0	0	0	0	0	0	0	0	0	0	220,893
	825-Clearings	-220,893	0	0	0	0	0	0	0	0	0	0	0	0	-220,893
	Clr Sum	-220,893	0	0	0	0	0	0	0	0	0	0	0	0	-220,893
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76116317 Unit 1 Bottom Ash Controls in DCS***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 12/15/2015

List Interim In-Service Dates

0

Project Need Justification

The Unit 1 bottom ash controls being replaced are locally mounted switches and pushbuttons that required attended operation. This requires the operator to physically stay at the control station for the duration of the process. Programmable Logic Controller (PLC) based and Distributed Control System (DCS) based control systems utilize computer chips and circuitry to automate processes. PLC and DCS controls have programs that properly time and sequence the activities within a controlled process.

The Unit 1 bottom ash system does not require attended operation from a safety perspective. Automated operation will allow the operator to monitor several activities simultaneously as opposed to being dedicated to one single operation.

Further, the existing Unit 1 bottom ash controls are obsolete and maintenance is becoming both more expensive and more difficult. Loss of control components has an immediate impact on unit performance and unit reliability.

At the completion of this project pumps, valves, slide gates and solenoids in the bottom ash system will receive their electronic signals from input/output (I/O) cards tied to a computer processing chip instead of mechanical contacts. The new controls will provide for unattended operation. A PLC device will be used. The PLC is tied to the DCS so operation can be both "local" meaning at the Man Machine Interface (MMI) panel located near the bottom ash hopper or "remote" meaning from a DCS MMI in the unit control room.

With the new controls, the operator will interact with "soft" controls (graphic images on a display screen) instead of physical switches and pushbuttons.

The project funds provide for engineering, materials, installation labor, project management, and general and administrative loads.

Project Alternatives

The "do nothing" alternative is to continue to maintain the existing systems. Although with increasing difficulty, increasing expense, and decreasing reliability due to obsolescence issues, this is not the optimal alternative.

Prudent utility operation requires the replacement of obsolete components in order to sustain system and unit reliability. The technology selected alternative for this application is driven by a plant-wide philosophy to match other installed technology. This approach minimizes costs associated with

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

training and spare parts. The approach also leads to higher reliability. Automation in general leads to lower operating cost (due to less labor) and a reduction in human performance events.

#### Technical Aspects

Existing mechanical hand switches, pushbuttons and indicator lights mounted in metal enclosures will be replaced with an electronic processor, I/O cards and MMI. The scope of work includes demolition of existing cables and enclosures, installation of new electronics enclosures, installation of I/O racks, installation of cable and conduit to connect the I/O cards to the controlled devices (pumps, valves, slide gates and solenoids), installation of cable and conduit to connect the locally mounted PLC to the DCS, engineering, drawing updates and operator training. Materials are purchased from local distributors and installation is performed by PNM labor.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116317	Year	2015										
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
	110-Straight Time-General	29,014	0	0	0	0	0	0	0	0	0	29,014	
	120-Overtime-General	2,989	0	0	0	0	0	0	0	0	0	2,989	
	350-Material Issues-Major	58,711	0	0	0	0	0	0	0	0	0	58,711	
	370-Outside Services	0	24,000	19,000	16,000	19,000	19,000	0	0	0	0	97,000	
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	17	0	0	0	0	0	0	0	0	0	17	
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	
	807-Non Refundable Contribution	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	
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	
	913-Payroll Taxes Load	2,157	0	0	0	0	0	0	0	0	0	2,157	
	914-Pension and Benefits Load	8,736	0	0	0	0	0	0	0	0	0	8,736	
	915-Injuries and Damages Load	1,444	0	0	0	0	0	0	0	0	0	1,444	
	918-San Juan AR-Labor	-22,170	0	0	0	0	0	0	0	0	0	-22,170	
	921-Stores / Purchasing Load	409	0	0	0	0	0	0	0	0	0	409	
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	
	925-E and S Loads	1,169	0	0	0	0	0	0	0	0	0	1,169	
	926-A and G Loads	2,150	569	450	379	450	450	0	0	0	0	4,449	
	928-AFUDC Debt Reg	260	155	184	209	233	260	274	0	0	0	1,574	
	929-AFUDC - Equity Regular	385	221	263	298	333	371	391	0	0	0	2,262	
	937-San Juan AR - Other	-31,229	-12,284	-9,725	-8,190	-9,725	-9,725	0	0	0	0	-80,878	
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	
	Cost Sum	54,043	12,661	10,173	8,696	10,291	10,355	665	0	0	0	106,884	
	825-Clearings	0	0	0	0	0	0	-106,884	0	0	0	-106,884	
	Clr Sum	0	0	0	0	0	0	-106,884	0	0	0	-106,884	
	Proj Net	54,043	12,661	10,173	8,696	10,291	10,355	-106,219	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116317	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	29,014	0	0	0	0	0	0	0	0	0	0	0	0	29,014
	120-Overtime-General	2,989	0	0	0	0	0	0	0	0	0	0	0	0	2,989
	350-Material Issues-Major	58,711	0	0	0	0	0	0	0	0	0	0	0	0	58,711
	370-Outside Services	97,000	0	0	0	0	0	0	0	0	0	0	0	0	97,000
	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	17	0	0	0	0	0	0	0	0	0	0	0	0	17
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	2,157	0	0	0	0	0	0	0	0	0	0	0	0	2,157
	914-Pension and Benefits Load	8,736	0	0	0	0	0	0	0	0	0	0	0	0	8,736
	915-Injuries and Damages Load	1,444	0	0	0	0	0	0	0	0	0	0	0	0	1,444
	918-San Juan AR-Labor	-22,170	0	0	0	0	0	0	0	0	0	0	0	0	-22,170
	921-Stores / Purchasing Load	409	0	0	0	0	0	0	0	0	0	0	0	0	409
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,169	0	0	0	0	0	0	0	0	0	0	0	0	1,169
	926-A and G Loads	4,449	0	0	0	0	0	0	0	0	0	0	0	0	4,449
	928-AFUDC Debt Reg	1,574	0	0	0	0	0	0	0	0	0	0	0	0	1,574
	929-AFUDC - Equity Regular	2,262	0	0	0	0	0	0	0	0	0	0	0	0	2,262
	937-San Juan AR - Other	-80,878	0	0	0	0	0	0	0	0	0	0	0	0	-80,878
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	106,884	0	0	0	0	0	0	0	0	0	0	0	0	106,884
	825-Clearings	-106,884	0	0	0	0	0	0	0	0	0	0	0	0	-106,884
	Clr Sum	-106,884	0	0	0	0	0	0	0	0	0	0	0	0	-106,884
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116317	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	29,014	0	0	0	0	0	0	0	0	0	0	0	0	29,014
	120-Overtime-General	2,989	0	0	0	0	0	0	0	0	0	0	0	0	2,989
	350-Material Issues-Major	58,711	0	0	0	0	0	0	0	0	0	0	0	0	58,711
	370-Outside Services	97,000	0	0	0	0	0	0	0	0	0	0	0	0	97,000
	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	17	0	0	0	0	0	0	0	0	0	0	0	0	17
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	2,157	0	0	0	0	0	0	0	0	0	0	0	0	2,157
	914-Pension and Benefits Load	8,736	0	0	0	0	0	0	0	0	0	0	0	0	8,736
	915-Injuries and Damages Load	1,444	0	0	0	0	0	0	0	0	0	0	0	0	1,444
	918-San Juan AR-Labor	-22,170	0	0	0	0	0	0	0	0	0	0	0	0	-22,170
	921-Stores / Purchasing Load	409	0	0	0	0	0	0	0	0	0	0	0	0	409
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,169	0	0	0	0	0	0	0	0	0	0	0	0	1,169
	926-A and G Loads	4,449	0	0	0	0	0	0	0	0	0	0	0	0	4,449
	928-AFUDC Debt Reg	1,574	0	0	0	0	0	0	0	0	0	0	0	0	1,574
	929-AFUDC - Equity Regular	2,262	0	0	0	0	0	0	0	0	0	0	0	0	2,262
	937-San Juan AR - Other	-80,878	0	0	0	0	0	0	0	0	0	0	0	0	-80,878
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	106,884	0	0	0	0	0	0	0	0	0	0	0	0	106,884
	825-Clearings	-106,884	0	0	0	0	0	0	0	0	0	0	0	0	-106,884
	Clr Sum	-106,884	0	0	0	0	0	0	0	0	0	0	0	0	-106,884
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76116414 SJ U1 Cooling Tower Manhole Rebuild***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 5/1/2015

List Interim In-Service Dates

0

Project Need Justification

A manhole is an opening in an underground electrical duct system which houses cables and which cablemen enter to pull in cable and to make splices and tests. A manhole may also be called a splicing chamber or cable vault. Typical electrical manholes are either square or rectangular concrete chambers with a plate steel cover.

Since they are below grade, if proper ground slopes and drainage are not maintained, water will flow and accumulate in a manhole. Accumulated water causes steel cable supports, mounted to the side of the concrete manhole (vault) to rust and eventually fail.

The Unit 1 cooling tower manhole is part of the original plant construction. The components in the manhole have been subjected to effects from accumulated water for over 35 years. Failure of the support structures makes the manhole unsafe for entry. Cables lying in water deteriorate and can experience short circuit failures.

The Unit 1 cooling tower manhole cable supports have deteriorated due to the amount of water in the manhole. The cables are now lying on the bottom of the manhole. The fiber is needed for the cooling tower fan variable frequency drive upgrade, which will be installed in 2015.

This project will replace the failed metallic cable supports with glass reinforced polymer supports and repair cables that show signs of deterioration resulting in a sound structure and the elimination of the current safety risks.

Project Alternatives

The alternative is to ignore the condition and accept the reliability risk associated with failing to properly maintain the plant.

An alternative to using UL Listed Glass Reinforced Polymer supports is to reuse metal supports. Polymer supports are superior to metal supports in this application as they will not rust and deteriorate when exposed to water.

Technical Aspects

Failed metal cable supports will be replaced with UL Listed Glass Reinforced Polymer supports. Cables that show signs of insulation deterioration will be replaced in whole or splice and replaced in part, depending on the extent of deterioration. Deteriorated cable insulation leads to short circuiting and catastrophic failure of a cable. Replacing deteriorated cables will prevent failures and increase the reliability of the system and unit.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116414	Year	2015										
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
	110-Straight Time-General	3,473	0	0	0	0	0	0	0	0	0	3,473	
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	
	350-Material Issues-Major	1,339	0	0	0	0	0	0	0	0	0	1,339	
	370-Outside Services	311,970	33,000	5,000	0	0	0	0	0	0	0	349,970	
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	
	807-Non Refundable Contribution	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	
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	
	913-Payroll Taxes Load	234	0	0	0	0	0	0	0	0	0	234	
	914-Pension and Benefits Load	991	0	0	0	0	0	0	0	0	0	991	
	915-Injuries and Damages Load	84	0	0	0	0	0	0	0	0	0	84	
	918-San Juan AR-Labor	-2,391	0	0	0	0	0	0	0	0	0	-2,391	
	921-Stores / Purchasing Load	2,111	0	0	0	0	0	0	0	0	0	2,111	
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	
	925-E and S Loads	5,446	0	0	0	0	0	0	0	0	0	5,446	
	926-A and G Loads	7,508	782	119	0	0	0	0	0	0	0	8,408	
	928-AFUDC Debt Reg	2,663	468	3	0	0	0	0	0	0	0	3,134	
	929-AFUDC - Equity Regular	3,845	668	5	0	0	0	0	0	0	0	4,517	
	937-San Juan AR - Other	-164,187	-16,891	-2,559	0	0	0	0	0	0	0	-183,637	
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	
	Cost Sum	173,086	18,027	2,567	0	0	0	0	0	0	0	193,680	
	825-Clearings	0	-191,113	-2,567	0	0	0	0	0	0	0	-193,680	
	Clr Sum	0	-191,113	-2,567	0	0	0	0	0	0	0	-193,680	
	Proj Net	173,086	-173,086	0	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116414	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,473	0	0	0	0	0	0	0	0	0	0	0	0	3,473
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	1,339	0	0	0	0	0	0	0	0	0	0	0	0	1,339
	370-Outside Services	349,970	0	0	0	0	0	0	0	0	0	0	0	0	349,970
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	234	0	0	0	0	0	0	0	0	0	0	0	0	234
	914-Pension and Benefits Load	991	0	0	0	0	0	0	0	0	0	0	0	0	991
	915-Injuries and Damages Load	84	0	0	0	0	0	0	0	0	0	0	0	0	84
	918-San Juan AR-Labor	-2,391	0	0	0	0	0	0	0	0	0	0	0	0	-2,391
	921-Stores / Purchasing Load	2,111	0	0	0	0	0	0	0	0	0	0	0	0	2,111
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	5,446	0	0	0	0	0	0	0	0	0	0	0	0	5,446
	926-A and G Loads	8,408	0	0	0	0	0	0	0	0	0	0	0	0	8,408
	928-AFUDC Debt Reg	3,134	0	0	0	0	0	0	0	0	0	0	0	0	3,134
	929-AFUDC - Equity Regular	4,517	0	0	0	0	0	0	0	0	0	0	0	0	4,517
	937-San Juan AR - Other	-183,637	0	0	0	0	0	0	0	0	0	0	0	0	-183,637
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	193,680	0	0	0	0	0	0	0	0	0	0	0	0	193,680
	825-Clearings	-193,680	0	0	0	0	0	0	0	0	0	0	0	0	-193,680
	Clr Sum	-193,680	0	0	0	0	0	0	0	0	0	0	0	0	-193,680
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116414	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,473	0	0	0	0	0	0	0	0	0	0	0	0	3,473
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	1,339	0	0	0	0	0	0	0	0	0	0	0	0	1,339
	370-Outside Services	349,970	0	0	0	0	0	0	0	0	0	0	0	0	349,970
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	234	0	0	0	0	0	0	0	0	0	0	0	0	234
	914-Pension and Benefits Load	991	0	0	0	0	0	0	0	0	0	0	0	0	991
	915-Injuries and Damages Load	84	0	0	0	0	0	0	0	0	0	0	0	0	84
	918-San Juan AR-Labor	-2,391	0	0	0	0	0	0	0	0	0	0	0	0	-2,391
	921-Stores / Purchasing Load	2,111	0	0	0	0	0	0	0	0	0	0	0	0	2,111
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	5,446	0	0	0	0	0	0	0	0	0	0	0	0	5,446
	926-A and G Loads	8,408	0	0	0	0	0	0	0	0	0	0	0	0	8,408
	928-AFUDC Debt Reg	3,134	0	0	0	0	0	0	0	0	0	0	0	0	3,134
	929-AFUDC - Equity Regular	4,517	0	0	0	0	0	0	0	0	0	0	0	0	4,517
	937-San Juan AR - Other	-183,637	0	0	0	0	0	0	0	0	0	0	0	0	-183,637
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	193,680	0	0	0	0	0	0	0	0	0	0	0	0	193,680
	825-Clearings	-193,680	0	0	0	0	0	0	0	0	0	0	0	0	-193,680
	Clr Sum	-193,680	0	0	0	0	0	0	0	0	0	0	0	0	-193,680
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76116513 Unit 1 Main & Auxiliary Transformer Relays***

Company: 003  
Location: 761 San Juan

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 6/1/2015

List Interim In-Service Dates

0

Project Need Justification

Protective relay technology has advanced from electromechanical devices to solid state devices. Electromechanical relays are becoming obsolete.

This project is to replace the Unit 1 Main & Auxiliary Transformer electromechanical protection relays to modern solid state relays. Replacement of the relays will reduce the risk of relay miss-operations and failures resulting in a unit outage. The new solid state relays include much tighter relay tolerances to protection settings. The result is an enhancement to the safety of equipment and personnel. Additionally, the new solid state relays provide historical/pre-trip data which proves extremely useful in determining the cause of a relay operation.

The project funds provide for engineering, materials (solid state relays, cable, and conduit), installation labor, commissioning, updating the SKM model, updating drawings, project management, and general and administrative loads.

Project Alternatives

The existing electromechanical relays could continue to be maintained, however, the task will become increasingly difficult as parts become less available. The industry standard has advanced from electromechanical devices to solid state devices. The solid state devices produce higher system reliability and offer more information on the cause of a relay trip than the electromechanical devices. Therefore, the chosen project is the best approach for PNM to mitigate the risk.

Technical Aspects

Replace obsolete electromechanical relays with solid state devices. This project is part of a multiyear program to replace electromechanical relays with solid state relays.

The scope of work includes replacing one (1) G60 generator protection relay and two (2) T35 transformer protection relays. A unit outage is required to complete this work.

The work was completed during the outage in the spring of 2015.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116513	Year	2015											
Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total			
110-Straight Time-General	19,288	0	0	0	0	0	0	0	0	0	19,288			
120-Overtime-General	12,403	0	0	0	0	0	0	0	0	0	12,403			
350-Material Issues-Major	45,444	0	0	0	0	0	0	0	0	0	45,444			
370-Outside Services	92,375	26,500	0	0	0	0	0	0	0	0	118,875			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	3,948	0	0	0	0	0	0	0	0	0	3,948			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0			
913-Payroll Taxes Load	2,136	0	0	0	0	0	0	0	0	0	2,136			
914-Pension and Benefits Load	5,875	0	0	0	0	0	0	0	0	0	5,875			
915-Injuries and Damages Load	1,559	0	0	0	0	0	0	0	0	0	1,559			
918-San Juan AR-Labor	-20,631	0	0	0	0	0	0	0	0	0	-20,631			
921-Stores / Purchasing Load	964	0	0	0	0	0	0	0	0	0	964			
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0			
925-E and S Loads	1,776	0	0	0	0	0	0	0	0	0	1,776			
926-A and G Loads	4,140	628	0	0	0	0	0	0	0	0	4,768			
928-AFUDC Debt Reg	2,055	274	0	0	0	0	0	0	0	0	2,329			
929-AFUDC - Equity Regular	2,688	392	0	0	0	0	0	0	0	0	3,080			
937-San Juan AR - Other	-74,324	-13,564	0	0	0	0	0	0	0	0	-87,888			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	99,697	14,230	0	0	0	0	0	0	0	0	113,927			
825-Clearings	0	-113,927	0	0	0	0	0	0	0	0	-113,927			
Clr Sum	0	-113,927	0	0	0	0	0	0	0	0	-113,927			
Proj Net	99,697	-99,697	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 76116513	Year	2016												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	19,288	0	0	0	0	0	0	0	0	0	0	0	0	19,288
120-Overtime-General	12,403	0	0	0	0	0	0	0	0	0	0	0	0	12,403
350-Material Issues-Major	45,444	0	0	0	0	0	0	0	0	0	0	0	0	45,444
370-Outside Services	118,875	0	0	0	0	0	0	0	0	0	0	0	0	118,875
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	3,948	0	0	0	0	0	0	0	0	0	0	0	0	3,948
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	2,136	0	0	0	0	0	0	0	0	0	0	0	0	2,136
914-Pension and Benefits Load	5,875	0	0	0	0	0	0	0	0	0	0	0	0	5,875
915-Injuries and Damages Load	1,559	0	0	0	0	0	0	0	0	0	0	0	0	1,559
918-San Juan AR-Labor	-20,631	0	0	0	0	0	0	0	0	0	0	0	0	-20,631
921-Stores / Purchasing Load	964	0	0	0	0	0	0	0	0	0	0	0	0	964
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	1,776	0	0	0	0	0	0	0	0	0	0	0	0	1,776
926-A and G Loads	4,768	0	0	0	0	0	0	0	0	0	0	0	0	4,768
928-AFUDC Debt Reg	2,329	0	0	0	0	0	0	0	0	0	0	0	0	2,329
929-AFUDC - Equity Regular	3,080	0	0	0	0	0	0	0	0	0	0	0	0	3,080
937-San Juan AR - Other	-87,888	0	0	0	0	0	0	0	0	0	0	0	0	-87,888
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	113,927	0	0	0	0	0	0	0	0	0	0	0	0	113,927
825-Clearings	-113,927	0	0	0	0	0	0	0	0	0	0	0	0	-113,927
Clr Sum	-113,927	0	0	0	0	0	0	0	0	0	0	0	0	-113,927
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116513	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	19,288	0	0	0	0	0	0	0	0	0	0	0	0	19,288
120-Overtime-General	12,403	0	0	0	0	0	0	0	0	0	0	0	0	12,403
350-Material Issues-Major	45,444	0	0	0	0	0	0	0	0	0	0	0	0	45,444
370-Outside Services	118,875	0	0	0	0	0	0	0	0	0	0	0	0	118,875
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	3,948	0	0	0	0	0	0	0	0	0	0	0	0	3,948
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	2,136	0	0	0	0	0	0	0	0	0	0	0	0	2,136
914-Pension and Benefits Load	5,875	0	0	0	0	0	0	0	0	0	0	0	0	5,875
915-Injuries and Damages Load	1,559	0	0	0	0	0	0	0	0	0	0	0	0	1,559
918-San Juan AR-Labor	-20,631	0	0	0	0	0	0	0	0	0	0	0	0	-20,631
921-Stores / Purchasing Load	964	0	0	0	0	0	0	0	0	0	0	0	0	964
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	1,776	0	0	0	0	0	0	0	0	0	0	0	0	1,776
926-A and G Loads	4,768	0	0	0	0	0	0	0	0	0	0	0	0	4,768
928-AFUDC Debt Reg	2,329	0	0	0	0	0	0	0	0	0	0	0	0	2,329
929-AFUDC - Equity Regular	3,080	0	0	0	0	0	0	0	0	0	0	0	0	3,080
937-San Juan AR - Other	-87,888	0	0	0	0	0	0	0	0	0	0	0	0	-87,888
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	113,927	0	0	0	0	0	0	0	0	0	0	0	0	113,927
825-Clearings	-113,927	0	0	0	0	0	0	0	0	0	0	0	0	-113,927
Clr Sum	-113,927	0	0	0	0	0	0	0	0	0	0	0	0	-113,927
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76116515 Unit 1 CEM Replacement***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 2/1/2016 Estimated Completion Date 5/30/2016

List Interim In-Service Dates

0

Project Need Justification

Continuous emissions monitoring systems are the equipment used to measure stack emissions and report information to various environmental regulators as required by the Title V Air Permit. Replacement of the Unit 1 emissions monitoring system is necessary to avoid obsolescence issues.

Continuous emission monitoring systems (CEMS) are currently used as a means to comply with air emission standards such as the United States Environmental Protection Agency's Acid Rain Program, other federal emission programs, or state permitted emission standards. Facilities employ the use of CEMS to continuously collect, record and report the required emissions data.

The standard CEM system consists of a sample probe, filter, sample line (umbilical), gas conditioning system, calibration gas system, and a series of gas analyzers which reflect the parameters being monitored. Typical monitored emissions include: sulfur dioxide, nitrogen oxides, carbon monoxide, and carbon dioxide, hydrogen chloride, airborne particulate matter, mercury, volatile organic compounds, and oxygen. CEM systems can also measure air flow, flue gas opacity and moisture.

In the U.S., the EPA requires a data acquisition and handling system to collect and report the data including emissions for SO<sub>2</sub>, NO<sub>x</sub>, and Opacity. In monitoring these emissions, the system must be in continuous operation and must be able to sample, analyze, and record data at least every 15 minutes and then averaged hourly.

A small sample of flue gas is extracted, by means of a pump, into the CEM system via a sample probe. Facilities that combust fossil fuels often use a dilution-extractive probe to dilute the sample with clean, dry air to a ratio typically between 50:1 to 200:1, but usually 100:1. Dilution is used because pure flue gas can be hot, wet and, with some pollutants, sticky. Once diluted to the appropriate ratio, the sample is transported through a sample line (typically referred to as an umbilical) to a manifold from which individual analyzers may extract a sample. Gas analyzers employ various techniques to accurately measure concentrations. Some commonly used techniques include: infrared and ultraviolet adsorption, chemiluminescence, fluorescence and beta ray absorption. After analysis, the gas exits the analyzer to a common manifold to all analyzers where it is vented out of doors. A Data Acquisition and Handling System (DAHS) receives the signal output from each analyzer in order to collect and record emissions data.

Another sample extraction method used in industrial sources and utility sources with low emission rates, is commonly referred to as the "hot dry"

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extractive method or "direct" CEMS. The sample is not diluted, but is carried along a heated sample line at high temperature into a sample conditioning unit. The sample is filtered to remove particulate matter and dried, usually with a chiller, to remove moisture. Once conditioned, the sample enters a sampling manifold and is measured using the same methods above. One advantage of this method is the ability to measure % oxygen in the sample, this is often required in the regulatory calculations for emission corrections. Since dilution mixes clean dry air with the sample, dilution systems cannot measure % oxygen.

This project will replace the existing "fully extractive" CEM system with a 'dilution extractive' type system. The dilution extractive system is replacing fully extractive systems in coal fired applications across the industry.

The new equipment will have greater accuracy and higher reliability than the aging equipment.

#### Project Alternatives

There are two alternatives: 1) maintain the existing equipment or 2) install the new dilution extractive system. By choosing to maintain the existing equipment, PNM will forfeit the maintenance savings provided by the new dilution extractive system equipment. Additionally, the preferred dilution extractive system is safer as the gas samples are not hot. Further, a sample line heating system and a sample conditioning system are not required, therefore reducing maintenance cost and increasing reliability. Data from coal fired applications across the industry supports dilution extractive systems having lower maintenance costs and higher reliability than fully extractive systems.

At some point the United States Environmental Protection Agency (EPA) may mandate the use of dilution extraction systems on coal fired applications as they have a greater degree of accuracy.

#### Technical Aspects

This project will replace the monitors and software used to report stack emission data to regulatory agencies. The existing systems will be replaced with the latest version of sensors, gas analyzers and data collection devices. The scope of work includes engineering, demolition of existing sampling probes, sample transport lines, sample conditioners, analyzers and data recorders, the purchase of new sample probes, analyzers and data recorders, contract labor for installation of new equipment, commissioning, validation testing, project management, and general and administrative loads.

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Cost Year 01

Project	76116515	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116515	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	0	150,000	150,000	150,000	0	0	0	0	0	0	0	0	450,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	3,555	3,555	3,555	0	0	0	0	0	0	0	0	10,665
	928-AFUDC Debt Reg	0	0	67	202	336	0	0	0	0	0	0	0	0	605
	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	-76,778	-76,778	-76,778	0	0	0	0	0	0	0	0	-230,334
	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	76,844	76,979	77,113	0	0	0	0	0	0	0	0	230,936
	825-Clearings	0	0	0	0	-230,938	0	0	0	0	0	0	0	0	-230,938
	Clr Sum	0	0	0	0	-230,938	0	0	0	0	0	0	0	0	-230,938
	Proj Net	0	0	76,844	76,979	-153,825	0	0	0	0	0	0	0	0	-2

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116515	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	450,000	0	0	0	0	0	0	0	0	0	0	0	0	450,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	10,665	0	0	0	0	0	0	0	0	0	0	0	0	10,665
	928-AFUDC Debt Reg	605	0	0	0	0	0	0	0	0	0	0	0	0	605
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-230,334	0	0	0	0	0	0	0	0	0	0	0	0	-230,334
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	230,936	0	0	0	0	0	0	0	0	0	0	0	0	230,936
	825-Clearings	-230,938	0	0	0	0	0	0	0	0	0	0	0	0	-230,938
	Clr Sum	-230,938	0	0	0	0	0	0	0	0	0	0	0	0	-230,938
	Proj Net	-2	0	0	0	0	0	0	0	0	0	0	0	0	-2

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***Project No: 76116622 Unit 1 Turbine Trip Block***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 7/15/2015

List Interim In-Service Dates

0

Project Need Justification

Turbine overspeed events lead to the most dangerous and costly of catastrophic turbine failures, including unanticipated, uncontained liberation of turbine blades and components, release of high pressure and temperature steam and result in secondary damage including process piping damage, chemical release, fires and missile damage. New technology has brought solutions to some of the shortcomings of traditional mechanical protection mechanisms.

Traditional mechanical overspeed sensing systems relied on the balance between the centripetal force imparted on a weight by the rotation of the shaft opposed to a spring with a known and specific constant. At the designed overspeed trip point, this balance position of the weight allows it to physically contact with a level that releases a valve that causes the trip oil header to drain and lose pressure. The loss of trip oil header pressure may directly move a trip mechanism or may operate through a hydraulic circuit to cause stop valves to close. Since the mechanism is not easily observed, it is possible for a significant problem to go undetected.

Electronic overspeed detection systems are common today. The “turbine trip block” is an electrical control and field sensor modernization package designed to replace the existing legacy protection system on steam turbines. The turbine trip block will enhance turbine availability through use of 2-out-of-3 voting for pressure and speed sensors.

The turbine trip block conversion package involves a new trip system, whereas the existing trip block and overspeed bolt are eliminated and replaced with a 2-out-of-3 voting architecture. The panel contains new triplicated field devices for the parameters monitored. Each device within the panel is on-line testable. Field transmitters may be calibrated on-line. Most components are on-line repairable / replaceable as well.

A true 2-out-of-3 voting system, the standard turbine trip block electronics packages consist of three processors monitoring all trip inputs. Each processor independently decides to issue a trip based on its set of inputs. All three of the processors share their input and output status signals for alarming and testing functions.

This project is to replace the Unit 1 mechanical overspeed trip device with an electronic turbine trip block. The project includes engineering, materials (sensor, transmitters, signal processors, cable, conduit, tubing), contract labor for installation, operator training, project management, and general and

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017  
administrative loads.

#### Project Alternatives

The only alternative is the "do nothing" alternative. Existing systems can be maintained although with increasing difficulty, increasing expense, and decreasing reliability due to obsolescence issues, it is not the optimal option. All of the other three San Juan units have already been upgraded from a mechanical overspeed device to an electronic device. Due to the criticality of the steam turbine, only the original equipment manufacturer (OEM) was considered as the provider of the technology.

#### Technical Aspects

Replace hydraulic trip mechanisms with transmitter supported electronic controls. The scope of work includes the following items:

- Demolish the existing hydro-mechanical trip bolt for overspeed protection, along with its existing manifold.
- Provide engineering design of equipment for electro-hydraulic tripping of the turbine for Unit 1.
- Supervise installation of a contractor-provided electro-hydraulic tripping mechanism with modified hydraulic manifold, similar to that which was provided for Units 3 and 4.
- Provide G.E. Woodward ProTech TPS overspeed protection system similar to that which was provided for Units 3 and 4.
- Provide four triple-redundant transmitter panels, one each for: bearing oil supply pressure, hydraulic pressure, shaft pump discharge pressure, and exhaust hood pressure.
- Provide for factory acceptance testing witnessed by PNM personnel.
- Provide for on-site ProTech TPS training for PNM personnel.
- Provide on-site engineering supervision of hydraulic oil flushing for re-assembled trip block.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116622	Year	2015									
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	46,917	0	0	0	0	0	0	0	0	0	46,917
	120-Overtime-General	11,925	0	0	0	0	0	0	0	0	0	11,925
	350-Material Issues-Major	70,703	0	0	0	0	0	0	0	0	0	70,703
	370-Outside Services	236,464	79,000	53,500	84,000	0	0	0	0	0	0	452,964
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	760	0	0	0	0	0	0	0	0	0	760
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	3,943	0	0	0	0	0	0	0	0	0	3,943
	914-Pension and Benefits Load	14,494	0	0	0	0	0	0	0	0	0	14,494
	915-Injuries and Damages Load	2,401	0	0	0	0	0	0	0	0	0	2,401
	918-San Juan AR-Labor	-39,840	0	0	0	0	0	0	0	0	0	-39,840
	921-Stores / Purchasing Load	2,340	0	0	0	0	0	0	0	0	0	2,340
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,878	0	0	0	0	0	0	0	0	0	2,878
	926-A and G Loads	8,693	1,872	1,268	1,991	0	0	0	0	0	0	13,824
	928-AFUDC Debt Reg	5,204	602	35	126	0	0	0	0	0	0	5,968
	929-AFUDC - Equity Regular	7,368	859	50	180	0	0	0	0	0	0	8,457
	937-San Juan AR - Other	-160,919	-40,436	-27,384	-42,995	0	0	0	0	0	0	-271,735
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	213,331	41,897	27,470	43,302	0	0	0	0	0	0	325,999
	825-Clearings	0	-255,228	0	-70,771	0	0	0	0	0	0	-325,999
	Clr Sum	0	-255,228	0	-70,771	0	0	0	0	0	0	-325,999
Proj Net		213,331	-213,331	27,470	-27,470	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116622	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	46,917	0	0	0	0	0	0	0	0	0	0	0	0	46,917
	120-Overtime-General	11,925	0	0	0	0	0	0	0	0	0	0	0	0	11,925
	350-Material Issues-Major	70,703	0	0	0	0	0	0	0	0	0	0	0	0	70,703
	370-Outside Services	452,964	0	0	0	0	0	0	0	0	0	0	0	0	452,964
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	760	0	0	0	0	0	0	0	0	0	0	0	0	760
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	3,943	0	0	0	0	0	0	0	0	0	0	0	0	3,943
	914-Pension and Benefits Load	14,494	0	0	0	0	0	0	0	0	0	0	0	0	14,494
	915-Injuries and Damages Load	2,401	0	0	0	0	0	0	0	0	0	0	0	0	2,401
	918-San Juan AR-Labor	-39,840	0	0	0	0	0	0	0	0	0	0	0	0	-39,840
	921-Stores / Purchasing Load	2,340	0	0	0	0	0	0	0	0	0	0	0	0	2,340
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,878	0	0	0	0	0	0	0	0	0	0	0	0	2,878
	926-A and G Loads	13,824	0	0	0	0	0	0	0	0	0	0	0	0	13,824
	928-AFUDC Debt Reg	5,968	0	0	0	0	0	0	0	0	0	0	0	0	5,968
	929-AFUDC - Equity Regular	8,457	0	0	0	0	0	0	0	0	0	0	0	0	8,457
	937-San Juan AR - Other	-271,735	0	0	0	0	0	0	0	0	0	0	0	0	-271,735
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	325,999	0	0	0	0	0	0	0	0	0	0	0	0	325,999
	825-Clearings	-325,999	0	0	0	0	0	0	0	0	0	0	0	0	-325,999
	Clr Sum	-325,999	0	0	0	0	0	0	0	0	0	0	0	0	-325,999
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116622	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	46,917	0	0	0	0	0	0	0	0	0	0	0	0	46,917
	120-Overtime-General	11,925	0	0	0	0	0	0	0	0	0	0	0	0	11,925
	350-Material Issues-Major	70,703	0	0	0	0	0	0	0	0	0	0	0	0	70,703
	370-Outside Services	452,964	0	0	0	0	0	0	0	0	0	0	0	0	452,964
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	760	0	0	0	0	0	0	0	0	0	0	0	0	760
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	3,943	0	0	0	0	0	0	0	0	0	0	0	0	3,943
	914-Pension and Benefits Load	14,494	0	0	0	0	0	0	0	0	0	0	0	0	14,494
	915-Injuries and Damages Load	2,401	0	0	0	0	0	0	0	0	0	0	0	0	2,401
	918-San Juan AR-Labor	-39,840	0	0	0	0	0	0	0	0	0	0	0	0	-39,840
	921-Stores / Purchasing Load	2,340	0	0	0	0	0	0	0	0	0	0	0	0	2,340
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,878	0	0	0	0	0	0	0	0	0	0	0	0	2,878
	926-A and G Loads	13,824	0	0	0	0	0	0	0	0	0	0	0	0	13,824
	928-AFUDC Debt Reg	5,968	0	0	0	0	0	0	0	0	0	0	0	0	5,968
	929-AFUDC - Equity Regular	8,457	0	0	0	0	0	0	0	0	0	0	0	0	8,457
	937-San Juan AR - Other	-271,735	0	0	0	0	0	0	0	0	0	0	0	0	-271,735
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	325,999	0	0	0	0	0	0	0	0	0	0	0	0	325,999
	825-Clearings	-325,999	0	0	0	0	0	0	0	0	0	0	0	0	-325,999
	Clr Sum	-325,999	0	0	0	0	0	0	0	0	0	0	0	0	-325,999
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76116715 Unit 1 Primary Air Damper Replacement***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 5/30/2015

List Interim In-Service Dates

0

Project Need Justification

The equipment which prepares and delivers fuel to the boilers consists of many high wear components that require routine replacement. Major maintenance activities on this equipment meet the criteria for capitalization. Routine maintenance is necessary to sustain reliable operation of the generating unit.

This project addresses the primary air dampers on the coal pulverizers. These dampers control both the volume and temperature of air supplied to the pulverizers. The primary air is used to both drive moisture out of the coal that is being pulverized and provide transport air to carry the pulverized coal from the pulverizers to the burners in the boiler. Under this project two of the three dampers that make up the primary air damper system on each pulverizer will be replaced. This is a total of eight dampers.

Damper failure or sticking is a cause for taking a pulverizer out of service. Loss of a pulverizer means a reduction in fuel going to the boiler and therefore a reduced output on the unit. Reduced output is measured in terms of lower reliability. This project is designed to improve unit reliability.

An optimized damper design is being implemented. In the optimized design the orientation of the air damper blade shafts are rotated 90 degrees from the former design. The former design was prone to bearing failures and the new design orientation will mitigate that problem.

This is a major maintenance activity designed to return the systems from worn conditions back to original design specifications.

Project Alternatives

The GADS data documents lost generation resulting from the primary air dampers failing to operate properly. The dampers require either significant maintenance, replacement in kind or replacement with an optimized design. Accepting the current shortcomings of the design and doing nothing or replacing the dampers with the same design (in kind replacement) will do nothing to improve unit reliability. Installing the dampers with the optimized design will produce higher unit reliability than the other options.

Based on experience and root cause analysis of previous damper failures, the selected option is superior to the "in-kind" replacement option.

Projects with clearings in 2015 and 2016, Budget data for 2015 – 2017

Technical Aspects

This activity primarily involves removing and replacing existing dampers with new optimized dampers. (The optimized design is described in the "Project Need Justification" above) The installation is planned for two of the three dampers on each of four (4) pulverizers. This is a total of eight (8) damper replacements.

The work was performed during the Unit 1 outage in the spring of 2015. (February 16 - April 10 2015).

No other materials were required to complete this project.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116715	Year	2015									
	Cost_Type	Bal 3/31/15	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
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	93,653	0	0	0	0	0	0	0	0	0	93,653
	370-Outside Services	271,070	40,000	0	0	0	0	0	0	0	0	311,070
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	23,376	0	0	0	0	0	0	0	0	0	23,376
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	28	0	0	0	0	0	0	0	0	0	28
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	2,550	0	0	0	0	0	0	0	0	0	2,550
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,153	0	0	0	0	0	0	0	0	0	4,153
	926-A and G Loads	9,199	948	0	0	0	0	0	0	0	0	10,147
	928-AFUDC Debt Reg	428	550	0	0	0	0	0	0	0	0	977
	929-AFUDC - Equity Regular	650	785	0	0	0	0	0	0	0	0	1,435
	937-San Juan AR - Other	-202,014	-20,474	0	0	0	0	0	0	0	0	-222,488
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	203,091	21,809	0	0	0	0	0	0	0	0	224,900
	825-Clearings	0	-224,900	0	0	0	0	0	0	0	0	-224,900
	Clr Sum	0	-224,900	0	0	0	0	0	0	0	0	-224,900
	Proj Net	203,091	-203,091	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116715	Year	2016												
	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	93,653	0	0	0	0	0	0	0	0	0	0	0	0	93,653
	370-Outside Services	311,070	0	0	0	0	0	0	0	0	0	0	0	0	311,070
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	23,376	0	0	0	0	0	0	0	0	0	0	0	0	23,376
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	28
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	2,550	0	0	0	0	0	0	0	0	0	0	0	0	2,550
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,153	0	0	0	0	0	0	0	0	0	0	0	0	4,153
	926-A and G Loads	10,147	0	0	0	0	0	0	0	0	0	0	0	0	10,147
	928-AFUDC Debt Reg	977	0	0	0	0	0	0	0	0	0	0	0	0	977
	929-AFUDC - Equity Regular	1,435	0	0	0	0	0	0	0	0	0	0	0	0	1,435
	937-San Juan AR - Other	-222,488	0	0	0	0	0	0	0	0	0	0	0	0	-222,488
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	224,900	0	0	0	0	0	0	0	0	0	0	0	0	224,900
	825-Clearings	-224,900	0	0	0	0	0	0	0	0	0	0	0	0	-224,900
	Clr Sum	-224,900	0	0	0	0	0	0	0	0	0	0	0	0	-224,900
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116715	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	93,653	0	0	0	0	0	0	0	0	0	0	0	0	93,653
	370-Outside Services	311,070	0	0	0	0	0	0	0	0	0	0	0	0	311,070
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	23,376	0	0	0	0	0	0	0	0	0	0	0	0	23,376
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	28
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	2,550	0	0	0	0	0	0	0	0	0	0	0	0	2,550
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,153	0	0	0	0	0	0	0	0	0	0	0	0	4,153
	926-A and G Loads	10,147	0	0	0	0	0	0	0	0	0	0	0	0	10,147
	928-AFUDC Debt Reg	977	0	0	0	0	0	0	0	0	0	0	0	0	977
	929-AFUDC - Equity Regular	1,435	0	0	0	0	0	0	0	0	0	0	0	0	1,435
	937-San Juan AR - Other	-222,488	0	0	0	0	0	0	0	0	0	0	0	0	-222,488
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	224,900	0	0	0	0	0	0	0	0	0	0	0	0	224,900
	825-Clearings	-224,900	0	0	0	0	0	0	0	0	0	0	0	0	-224,900
	Clr Sum	-224,900	0	0	0	0	0	0	0	0	0	0	0	0	-224,900
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76116914 Unit 1 Cooling tower fan deck & hot water basin***

Company: 003  
Location: 761 San Juan

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 3/31/2015

List Interim In-Service Dates

0

Project Need Justification

The Unit 1 cooling tower has significant deterioration in the fan deck and hot water basin. The deterioration is severe to the point it creates an unsafe condition for employees. This project replaces the original treated fir wood planking material on the fan deck with a slip resistant fiberglass planking. The fiberglass material will provide a safer walking surface for employees and be much more durable than the original wood.

The hot water basin is being rebuilt with in-kind materials. Fiberglass is not a viable option for this application.

This is a maintenance activity that meets the criteria for capitalization. This maintenance is required to sustain unit reliability and a safe work environment for employees.

Although the cooling tower has eleven cells which can be isolated independently for maintenance, the tower itself is a non-redundant component. Failure of the tower will result in a complete unit shutdown.

The project cost includes engineering, materials, contract labor for installation, project management, general and administrative loads and AFUDC.

Project Alternatives

There are no functional alternatives to replacing the fan deck and hot water basin. The wood structures are deteriorated and unsafe. There are alternates for replacement material selection and the more durable fiberglass option has been selected.

Technical Aspects

Replace failed wooden deck and hot water basin with fiberglass components. Specifically, the scope of work includes the following:

Base Scope of Work Unit 1 Cooling Tower



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

1.0 Fan Decking - In eleven (11) cells, remove existing fan decking and install new decking constructed of 1 1/8" fiberglass reinforced polymer (FRP) decking panels. New FRP handrail will be supplied at each end of tower matching handrails installed down each longitudinal face.

2.0 Hot water Basins - In eleven (11) cells, install hot water basins constructed of 1 1/8" Plywood decking Douglas Fir basin curbs and partitions. New FRP access ladders will be supplied as an option.

3.0 Splash Fill - In the top 6' elevation of eleven (11) cells, remove existing fill and install new Brentwood 4" PVC Kelly-Bar fill.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116914	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,401		0	0	0	0	0	0	0	0	0	5,401
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	19		0	0	0	0	0	0	0	0	0	19
	370-Outside Services	995,290		95,000	0	247,000	0	0	0	0	0	0	1,337,290
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	364		0	0	0	0	0	0	0	0	0	364
	914-Pension and Benefits Load	1,633		0	0	0	0	0	0	0	0	0	1,633
	915-Injuries and Damages Load	250		0	0	0	0	0	0	0	0	0	250
	918-San Juan AR-Labor	-3,823		0	0	0	0	0	0	0	0	0	-3,823
	921-Stores / Purchasing Load	6,670		0	0	0	0	0	0	0	0	0	6,670
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	11,020		0	0	0	0	0	0	0	0	0	11,020
	926-A and G Loads	23,717		2,252	7,717	5,854	0	0	0	0	0	0	31,822
	928-AFUDC Debt Reg	1,193		1,416	0	163	0	0	0	0	0	0	2,772
	929-AFUDC - Equity Regular	1,792		2,022	0	233	0	0	0	0	0	0	4,046
	937-San Juan AR - Other	-518,358		-48,626	0	-126,427	0	0	0	0	0	0	-693,410
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	525,166		52,063	0	126,822	0	0	0	0	0	0	704,051
	825-Clearings	0		-577,229	0	-126,822	0	0	0	0	0	0	-704,051
	Clr Sum	0		-577,229	0	-126,822	0	0	0	0	0	0	-704,051
	Proj Net	525,166		-525,166	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116914	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,401	0	0	0	0	0	0	0	0	0	0	0	0	5,401
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	19	0	0	0	0	0	0	0	0	0	0	0	0	19
	370-Outside Services	1,337,290	0	0	0	0	0	0	0	0	0	0	0	0	1,337,290
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	364	0	0	0	0	0	0	0	0	0	0	0	0	364
	914-Pension and Benefits Load	1,633	0	0	0	0	0	0	0	0	0	0	0	0	1,633
	915-Injuries and Damages Load	250	0	0	0	0	0	0	0	0	0	0	0	0	250
	918-San Juan AR-Labor	-3,823	0	0	0	0	0	0	0	0	0	0	0	0	-3,823
	921-Stores / Purchasing Load	6,670	0	0	0	0	0	0	0	0	0	0	0	0	6,670
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	11,020	0	0	0	0	0	0	0	0	0	0	0	0	11,020
	926-A and G Loads	31,822	0	0	0	0	0	0	0	0	0	0	0	0	31,822
	928-AFUDC Debt Reg	2,772	0	0	0	0	0	0	0	0	0	0	0	0	2,772
	929-AFUDC - Equity Regular	4,046	0	0	0	0	0	0	0	0	0	0	0	0	4,046
	937-San Juan AR - Other	-693,410	0	0	0	0	0	0	0	0	0	0	0	0	-693,410
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	704,051	0	0	0	0	0	0	0	0	0	0	0	0	704,051
	825-Clearings	-704,051	0	0	0	0	0	0	0	0	0	0	0	0	-704,051
	Clr Sum	-704,051	0	0	0	0	0	0	0	0	0	0	0	0	-704,051
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116914	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,401	0	0	0	0	0	0	0	0	0	0	0	0	5,401
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	19	0	0	0	0	0	0	0	0	0	0	0	0	19
	370-Outside Services	1,337,290	0	0	0	0	0	0	0	0	0	0	0	0	1,337,290
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	364	0	0	0	0	0	0	0	0	0	0	0	0	364
	914-Pension and Benefits Load	1,633	0	0	0	0	0	0	0	0	0	0	0	0	1,633
	915-Injuries and Damages Load	250	0	0	0	0	0	0	0	0	0	0	0	0	250
	918-San Juan AR-Labor	-3,823	0	0	0	0	0	0	0	0	0	0	0	0	-3,823
	921-Stores / Purchasing Load	6,670	0	0	0	0	0	0	0	0	0	0	0	0	6,670
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	11,020	0	0	0	0	0	0	0	0	0	0	0	0	11,020
	926-A and G Loads	31,822	0	0	0	0	0	0	0	0	0	0	0	0	31,822
	928-AFUDC Debt Reg	2,772	0	0	0	0	0	0	0	0	0	0	0	0	2,772
	929-AFUDC - Equity Regular	4,046	0	0	0	0	0	0	0	0	0	0	0	0	4,046
	937-San Juan AR - Other	-693,410	0	0	0	0	0	0	0	0	0	0	0	0	-693,410
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	704,051	0	0	0	0	0	0	0	0	0	0	0	0	704,051
	825-Clearings	-704,051	0	0	0	0	0	0	0	0	0	0	0	0	-704,051
	Clr Sum	-704,051	0	0	0	0	0	0	0	0	0	0	0	0	-704,051
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76117110 SJ U1 Digital Generator Protection Relay***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 6/30/2015

List Interim In-Service Dates

Project Need Justification

Protective relay technology has advanced from electromechanical devices to solid state devices. Electromechanical relays are becoming obsolete. This project is to replace the Unit 1 generator protection relays with modern solid state relays.

The existing digital generator protection (DGP) relay is over 10 years old. It does not provide timely or complete data for trouble analysis. Additionally, it has become expensive to maintain from the cost of parts, the time and cost of training knowledgeable plant technicians and the time it takes to retrieve and analyze what little data the relay does have. The data is not compatible with the latest analytical tools for generator maintenance and operations. The relay has caused delays in returning the unit to service following a trip.

The operational importance of the DGP relay is to limit or prevent damage to the generator due to problems with generator control systems such as the voltage regulator and exciter, electrical faults in the generator and faults and frequency problems on the transmission systems.

The cost of the project includes engineering, materials, internal and external labor, project management, general and administrative loads and AFUDC.

Project Alternatives

The existing electromechanical relays could continue to be maintained, however, the task will become increasingly difficult as parts become less available. The industry standard has moved from electromechanical devices to solid state devices. The solid state devices produce higher system reliability and offer more information on the cause of a relay trip than the electromechanical devices.

Technical Aspects

Replace obsolete electromechanical relays with solid state devices. This project is part of a multiyear program to replace electromechanical relays with solid state relays. The relays are located in all areas of the plant - each unit, common areas and the switchyard.

This specific project consists of replacing existing generator relaying and associated equipment with a prefabricated panel insert incorporating multifunction protective relays, test switches and lockout relays. The panel location is in a power plant control room to be installed during a unit shutdown.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

The existing components on a section of the BTG (boiler, turbine, and generator) board will be demolished and a hole cut in the board to accept the new panel insert. The physical dimensions are fairly large for a panel of this type. It is understood that weight and panel stiffness will be significant concerns.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117110	Year	2015									
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	22,328	0	0	0	0	0	0	0	0	0	22,328
	120-Overtime-General	13,656	0	0	0	0	0	0	0	0	0	13,656
	350-Material Issues-Major	72,381	0	0	0	0	0	0	0	0	0	72,381
	370-Outside Services	253,069	50,000	0	0	0	0	0	0	0	0	303,069
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	592	0	0	0	0	0	0	0	0	0	592
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	2,450	0	0	0	0	0	0	0	0	0	2,450
	914-Pension and Benefits Load	6,956	0	0	0	0	0	0	0	0	0	6,956
	915-Injuries and Damages Load	1,737	0	0	0	0	0	0	0	0	0	1,737
	918-San Juan AR-Labor	-23,563	0	0	0	0	0	0	0	0	0	-23,563
	921-Stores / Purchasing Load	2,266	0	0	0	0	0	0	0	0	0	2,266
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,048	0	0	0	0	0	0	0	0	0	3,048
	926-A and G Loads	8,667	1,185	0	0	0	0	0	0	0	0	9,852
	928-AFUDC Debt Reg	6,265	568	0	0	0	0	0	0	0	0	6,834
	929-AFUDC - Equity Regular	7,853	811	0	0	0	0	0	0	0	0	8,664
	937-San Juan AR - Other	-170,012	-25,593	0	0	0	0	0	0	0	0	-195,604
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	207,693	26,972	0	0	0	0	0	0	0	0	234,665
	825-Clearings	0	-234,665	0	0	0	0	0	0	0	0	-234,665
	Clr Sum	0	-234,665	0	0	0	0	0	0	0	0	-234,665
	Proj Net	207,693	-207,693	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117110	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	22,328	0	0	0	0	0	0	0	0	0	0	0	0	22,328
	120-Overtime-General	13,656	0	0	0	0	0	0	0	0	0	0	0	0	13,656
	350-Material Issues-Major	72,381	0	0	0	0	0	0	0	0	0	0	0	0	72,381
	370-Outside Services	303,069	0	0	0	0	0	0	0	0	0	0	0	0	303,069
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	592	0	0	0	0	0	0	0	0	0	0	0	0	592
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	2,450	0	0	0	0	0	0	0	0	0	0	0	0	2,450
	914-Pension and Benefits Load	6,956	0	0	0	0	0	0	0	0	0	0	0	0	6,956
	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	-23,563	0	0	0	0	0	0	0	0	0	0	0	0	-23,563
	921-Stores / Purchasing Load	2,266	0	0	0	0	0	0	0	0	0	0	0	0	2,266
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,048	0	0	0	0	0	0	0	0	0	0	0	0	3,048
	926-A and G Loads	9,852	0	0	0	0	0	0	0	0	0	0	0	0	9,852
	928-AFUDC Debt Reg	6,834	0	0	0	0	0	0	0	0	0	0	0	0	6,834
	929-AFUDC - Equity Regular	8,664	0	0	0	0	0	0	0	0	0	0	0	0	8,664
	937-San Juan AR - Other	-195,604	0	0	0	0	0	0	0	0	0	0	0	0	-195,604
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	234,665	0	0	0	0	0	0	0	0	0	0	0	0	234,665
	825-Clearings	-234,665	0	0	0	0	0	0	0	0	0	0	0	0	-234,665
	Clr Sum	-234,665	0	0	0	0	0	0	0	0	0	0	0	0	-234,665
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117110	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	22,328	0	0	0	0	0	0	0	0	0	0	0	0	22,328
	120-Overtime-General	13,656	0	0	0	0	0	0	0	0	0	0	0	0	13,656
	350-Material Issues-Major	72,381	0	0	0	0	0	0	0	0	0	0	0	0	72,381
	370-Outside Services	303,069	0	0	0	0	0	0	0	0	0	0	0	0	303,069
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	592	0	0	0	0	0	0	0	0	0	0	0	0	592
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	2,450	0	0	0	0	0	0	0	0	0	0	0	0	2,450
	914-Pension and Benefits Load	6,956	0	0	0	0	0	0	0	0	0	0	0	0	6,956
	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	-23,563	0	0	0	0	0	0	0	0	0	0	0	0	-23,563
	921-Stores / Purchasing Load	2,266	0	0	0	0	0	0	0	0	0	0	0	0	2,266
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,048	0	0	0	0	0	0	0	0	0	0	0	0	3,048
	926-A and G Loads	9,852	0	0	0	0	0	0	0	0	0	0	0	0	9,852
	928-AFUDC Debt Reg	6,834	0	0	0	0	0	0	0	0	0	0	0	0	6,834
	929-AFUDC - Equity Regular	8,664	0	0	0	0	0	0	0	0	0	0	0	0	8,664
	937-San Juan AR - Other	-195,604	0	0	0	0	0	0	0	0	0	0	0	0	-195,604
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	234,665	0	0	0	0	0	0	0	0	0	0	0	0	234,665
	825-Clearings	-234,665	0	0	0	0	0	0	0	0	0	0	0	0	-234,665
	Clr Sum	-234,665	0	0	0	0	0	0	0	0	0	0	0	0	-234,665
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76117215 Stock Feeder Discharge Chute/Piping***

Company: 003  
Location: 761 San Juan

**Project Information**

Construction Start Date 2/13/2015 Estimated Completion Date 4/30/2015

List Interim In-Service Dates

Project Need Justification

The equipment which prepares and delivers fuel to the boilers consists of many high wear components that require routine replacement. Major maintenance activities on this equipment meet the criteria for capitalization. Routine maintenance is necessary to sustain reliable operation of the generating unit. This project is specifically designed to improve reliability by eliminating a known bottleneck in the fuel delivery path.

The coal flow pluggage which has been experienced at this location and has resulted in reduced unit reliability and output, is directly related to the size of the pipe through which the material is being conveyed. Increasing the diameter of the discharge pipe produces a corresponding increase in the cross-sectional area through which the material flows. The same volume flowing through an increased area will result in less pluggage.

The scope of work is to replace the existing 14" diameter feeder discharge pipes with 18" diameter pipes. To accommodate the larger diameter discharge pipes, corresponding changes must be made to the transition chute that connects the discharge pipe to the Stock feeders.

Project Alternatives

There is an operational alternative and an equipment modification alternative to address this issue. The operational alternative is to reduce unit output, however, this is not a viable alternative as the full capacity of the unit is required to meet customer demand. The equipment modification alternative is the best solution as it improves reliability.

Technical Aspects

This project primarily involves removing and replacing equipment with like equipment with some spatial design and material upgrades.

The scope of work is to replace the existing 14" diameter feeder discharge pipes with 18" diameter pipes. This improvement will be implemented on each of four feeders.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117215	Year	2015									
	Cost_Type	Bal 3/31/15	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
	120-Overtime-General	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
	370-Outside Services	277,029	87,275	0	0	0	0	0	0	0	0	364,304
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,964	0	0	0	0	0	0	0	0	0	2,964
	926-A and G Loads	6,566	2,068	0	0	0	0	0	0	0	0	8,634
	928-AFUDC Debt Reg	186	0	0	0	0	0	0	0	0	0	186
	929-AFUDC - Equity Regular	286	0	0	0	0	0	0	0	0	0	286
	937-San Juan AR - Other	-143,279	-44,672	0	0	0	0	0	0	0	0	-187,951
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	143,752	44,672	0	0	0	0	0	0	0	0	188,423
	825-Clearings	0	-188,423	0	0	0	0	0	0	0	0	-188,423
	Clr Sum	0	-188,423	0	0	0	0	0	0	0	0	-188,423
	Proj Net	143,752	-143,752	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117215	Year	2016												
	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	364,304	0	0	0	0	0	0	0	0	0	0	0	0	364,304
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,964	0	0	0	0	0	0	0	0	0	0	0	0	2,964
	926-A and G Loads	8,634	0	0	0	0	0	0	0	0	0	0	0	0	8,634
	928-AFUDC Debt Reg	186	0	0	0	0	0	0	0	0	0	0	0	0	186
	929-AFUDC - Equity Regular	286	0	0	0	0	0	0	0	0	0	0	0	0	286
	937-San Juan AR - Other	-187,951	0	0	0	0	0	0	0	0	0	0	0	0	-187,951
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	188,423	0	0	0	0	0	0	0	0	0	0	0	0	188,423
	825-Clearings	-188,423	0	0	0	0	0	0	0	0	0	0	0	0	-188,423
	Clr Sum	-188,423	0	0	0	0	0	0	0	0	0	0	0	0	-188,423
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117215	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	364,304	0	0	0	0	0	0	0	0	0	0	0	0	364,304
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,964	0	0	0	0	0	0	0	0	0	0	0	0	2,964
	926-A and G Loads	8,634	0	0	0	0	0	0	0	0	0	0	0	0	8,634
	928-AFUDC Debt Reg	186	0	0	0	0	0	0	0	0	0	0	0	0	186
	929-AFUDC - Equity Regular	286	0	0	0	0	0	0	0	0	0	0	0	0	286
	937-San Juan AR - Other	-187,951	0	0	0	0	0	0	0	0	0	0	0	0	-187,951
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	188,423	0	0	0	0	0	0	0	0	0	0	0	0	188,423
	825-Clearings	-188,423	0	0	0	0	0	0	0	0	0	0	0	0	-188,423
	Clr Sum	-188,423	0	0	0	0	0	0	0	0	0	0	0	0	-188,423
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76117532 Unit 1 Switchyard Controls to DCS***

Company: 003  
Location: 761 San Juan

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 5/30/2015

List Interim In-Service Dates

0

Project Need Justification

This project is part of a plant wide program to replace aging and/or obsolete control devices (such as pistol grip switches and mechanical devices) with current state of the art devices (such as "soft" switches on computer screens and electronic transmitters). These upgrades create a reduction in physical space for controls (moving from panel boards to computer screens), consistency in control device philosophy, easier troubleshooting and greater system status information for the unit operators. This project specifically addresses the removal of pistol-grip switches and indicating lights and replacing those components with "soft" switches and graphical indications in the plant-wide Distributed Control System (DCS). This upgrade has already been successfully performed at two of the other four San Juan units.

The project will consolidate operator functions into one system and will allow monitoring from one location. The former arrangement required the operator to leave some functions unattended in order to check on the status of switchyard equipment.

The cost of the project includes engineering, materials, internal and external labor, project management, general and administrative loads and AFUDC.

Project Alternatives

The only alternative is the "do nothing" alternative. Existing systems can be maintained although with increasing difficulty, increasing expense, and decreasing reliability due to obsolescence issues.

This alternative will also forfeit the advantages of the chosen solution which includes consolidating operator functions into one system and allowing monitoring from one location.

Technical Aspects

Replace existing locally mounted buttons and switches with electronic devices within the DCS system. The scope of work includes moving the wiring from the terminals on the existing physical devices and landing it on Input/Output (I/O) cards within the DCS architecture. Graphical images displayed on monitor screens are built to represent the manual switches which are being removed.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117532	Year	2015											
Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total			
110-Straight Time-General	4,987	0	0	0	0	0	0	0	0	0	4,987			
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0			
350-Material Issues-Major	84,899	0	0	0	0	0	0	0	0	0	84,899			
370-Outside Services	83,813	18,000	0	0	0	0	0	0	0	0	101,813			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	225	0	0	0	0	0	0	0	0	0	225			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0			
913-Payroll Taxes Load	336	0	0	0	0	0	0	0	0	0	336			
914-Pension and Benefits Load	1,519	0	0	0	0	0	0	0	0	0	1,519			
915-Injuries and Damages Load	245	0	0	0	0	0	0	0	0	0	245			
918-San Juan AR-Labor	-3,544	0	0	0	0	0	0	0	0	0	-3,544			
921-Stores / Purchasing Load	1,162	0	0	0	0	0	0	0	0	0	1,162			
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0			
925-E and S Loads	1,675	0	0	0	0	0	0	0	0	0	1,675			
926-A and G Loads	4,137	427	0	0	0	0	0	0	0	0	4,564			
928-AFUDC Debt Reg	1,145	255	0	0	0	0	0	0	0	0	1,399			
929-AFUDC - Equity Regular	1,536	363	0	0	0	0	0	0	0	0	1,900			
937-San Juan AR - Other	-87,955	-9,213	0	0	0	0	0	0	0	0	-97,169			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	94,180	9,831	0	0	0	0	0	0	0	0	104,011			
825-Clearings	0	-104,011	0	0	0	0	0	0	0	0	-104,011			
Clr Sum	0	-104,011	0	0	0	0	0	0	0	0	-104,011			
Proj Net	94,180	-94,180	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117532	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,987	0	0	0	0	0	0	0	0	0	0	0	0	4,987
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	84,899	0	0	0	0	0	0	0	0	0	0	0	0	84,899
	370-Outside Services	101,813	0	0	0	0	0	0	0	0	0	0	0	0	101,813
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	225	0	0	0	0	0	0	0	0	0	0	0	0	225
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	336	0	0	0	0	0	0	0	0	0	0	0	0	336
	914-Pension and Benefits Load	1,519	0	0	0	0	0	0	0	0	0	0	0	0	1,519
	915-Injuries and Damages Load	245	0	0	0	0	0	0	0	0	0	0	0	0	245
	918-San Juan AR-Labor	-3,544	0	0	0	0	0	0	0	0	0	0	0	0	-3,544
	921-Stores / Purchasing Load	1,162	0	0	0	0	0	0	0	0	0	0	0	0	1,162
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,675	0	0	0	0	0	0	0	0	0	0	0	0	1,675
	926-A and G Loads	4,564	0	0	0	0	0	0	0	0	0	0	0	0	4,564
	928-AFUDC Debt Reg	1,399	0	0	0	0	0	0	0	0	0	0	0	0	1,399
	929-AFUDC - Equity Regular	1,900	0	0	0	0	0	0	0	0	0	0	0	0	1,900
	937-San Juan AR - Other	-97,169	0	0	0	0	0	0	0	0	0	0	0	0	-97,169
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	104,011	0	0	0	0	0	0	0	0	0	0	0	0	104,011
	825-Clearings	-104,011	0	0	0	0	0	0	0	0	0	0	0	0	-104,011
	Clr Sum	-104,011	0	0	0	0	0	0	0	0	0	0	0	0	-104,011
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117532	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,987	0	0	0	0	0	0	0	0	0	0	0	0	4,987
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	84,899	0	0	0	0	0	0	0	0	0	0	0	0	84,899
	370-Outside Services	101,813	0	0	0	0	0	0	0	0	0	0	0	0	101,813
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	225	0	0	0	0	0	0	0	0	0	0	0	0	225
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	336	0	0	0	0	0	0	0	0	0	0	0	0	336
	914-Pension and Benefits Load	1,519	0	0	0	0	0	0	0	0	0	0	0	0	1,519
	915-Injuries and Damages Load	245	0	0	0	0	0	0	0	0	0	0	0	0	245
	918-San Juan AR-Labor	-3,544	0	0	0	0	0	0	0	0	0	0	0	0	-3,544
	921-Stores / Purchasing Load	1,162	0	0	0	0	0	0	0	0	0	0	0	0	1,162
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,675	0	0	0	0	0	0	0	0	0	0	0	0	1,675
	926-A and G Loads	4,564	0	0	0	0	0	0	0	0	0	0	0	0	4,564
	928-AFUDC Debt Reg	1,399	0	0	0	0	0	0	0	0	0	0	0	0	1,399
	929-AFUDC - Equity Regular	1,900	0	0	0	0	0	0	0	0	0	0	0	0	1,900
	937-San Juan AR - Other	-97,169	0	0	0	0	0	0	0	0	0	0	0	0	-97,169
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	104,011	0	0	0	0	0	0	0	0	0	0	0	0	104,011
	825-Clearings	-104,011	0	0	0	0	0	0	0	0	0	0	0	0	-104,011
	Clr Sum	-104,011	0	0	0	0	0	0	0	0	0	0	0	0	-104,011
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76117614 Unit 1 Motor Control Center 1A Replacement - 2015***

Company: 003  
Location: 761 San Juan

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 6/30/2015

List Interim In-Service Dates

0

Project Need Justification

This project addresses equipment obsolescence issues. Replacement of critical equipment is necessary to sustain unit reliability. This project is the replacement of a 24 compartment 480V motor control center. Currently there are nineteen (19) loads served from this motor control center and four (4) spare compartments.

This motor control center provides power to the following loads:

1. Emergency Lighting Panel L1E; 2. Transformer T1 Unit Heater
3. Relay Room Air Conditioning Unit; 4. Sootblowers; 5. Turning Gear; 6. Turning Gear Oil Pump; 7. Battery Charger 1A
8. Emergency Generator Lube Oil Pump; 9. Scanner Air Fan 1A; 10. Battery Charger 1C; 11. Tean Tracing (Trans T2); 12. Vacuum Breaker; 13. Air Handling Unit;
14. Circulating Water Pumps 1A & 1B Discharge Valves; 15. Emergency Lighting Panel L1EA; 16. Emergency Lighting Panel L1EB; 17. Emergency Lighting Panel L1EC; 18. Unit 1 Silo Elevator; 19. Battery Charger 1B

The cost of the project includes engineering, materials, contract labor for installation, construction supervision, project management, general and administrative loads and AFUDC.

Project Alternatives

The alternative is to continue to maintain the existing equipment but this will become increasingly costly and difficult as replacement parts become harder to find.

A bucket replacement in lieu of a complete motor control center replacement was considered for the time and expense to replace individual buckets was more than that required to execute a complete motor control center replacement.

This replacement is consistent with an ongoing program to replace obsolete electrical equipment. The equipment installed is standard equipment that has been selected to replace obsolete motor control centers.

Technical Aspects

The equipment replacement will be of similar design, but with upgraded materials and solid state controls. Each motor control center shall be made up

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

of one or more vertical sections, joined together to form a complete enclosed assembly. Replacements will be made to items such as doors, bus bars, and ground Buses.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117614	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	9,670		0	0	0	0	0	0	0	0	0	9,670
	120-Overtime-General	1,958		0	0	0	0	0	0	0	0	0	1,958
	350-Material Issues-Major	3,490		0	0	0	0	0	0	0	0	0	3,490
	370-Outside Services	184,581		49,000	0	0	0	0	0	0	0	0	233,581
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	225		0	0	0	0	0	0	0	0	0	225
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	784		0	0	0	0	0	0	0	0	0	784
	914-Pension and Benefits Load	2,896		0	0	0	0	0	0	0	0	0	2,896
	915-Injuries and Damages Load	508		0	0	0	0	0	0	0	0	0	508
	918-San Juan AR-Labor	-7,908		0	0	0	0	0	0	0	0	0	-7,908
	921-Stores / Purchasing Load	1,300		0	0	0	0	0	0	0	0	0	1,300
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,476		0	0	0	0	0	0	0	0	0	2,476
	926-A and G Loads	4,738		1,161	0	0	0	0	0	0	0	0	5,899
	928-AFUDC Debt Reg	587		310	0	0	0	0	0	0	0	0	897
	929-AFUDC - Equity Regular	867		443	0	0	0	0	0	0	0	0	1,309
	937-San Juan AR - Other	-98,405		-25,081	0	0	0	0	0	0	0	0	-123,486
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	107,767		25,833	0	0	0	0	0	0	0	0	133,600
	825-Clearings	0		-133,600	0	0	0	0	0	0	0	0	-133,600
	Clr Sum	0		-133,600	0	0	0	0	0	0	0	0	-133,600
	Proj Net	107,767		-107,767	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117614	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	9,670	0	0	0	0	0	0	0	0	0	0	0	0	9,670
	120-Overtime-General	1,958	0	0	0	0	0	0	0	0	0	0	0	0	1,958
	350-Material Issues-Major	3,490	0	0	0	0	0	0	0	0	0	0	0	0	3,490
	370-Outside Services	233,581	0	0	0	0	0	0	0	0	0	0	0	0	233,581
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	225	0	0	0	0	0	0	0	0	0	0	0	0	225
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	784	0	0	0	0	0	0	0	0	0	0	0	0	784
	914-Pension and Benefits Load	2,896	0	0	0	0	0	0	0	0	0	0	0	0	2,896
	915-Injuries and Damages Load	508	0	0	0	0	0	0	0	0	0	0	0	0	508
	918-San Juan AR-Labor	-7,908	0	0	0	0	0	0	0	0	0	0	0	0	-7,908
	921-Stores / Purchasing Load	1,300	0	0	0	0	0	0	0	0	0	0	0	0	1,300
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,476	0	0	0	0	0	0	0	0	0	0	0	0	2,476
	926-A and G Loads	5,899	0	0	0	0	0	0	0	0	0	0	0	0	5,899
	928-AFUDC Debt Reg	897	0	0	0	0	0	0	0	0	0	0	0	0	897
	929-AFUDC - Equity Regular	1,309	0	0	0	0	0	0	0	0	0	0	0	0	1,309
	937-San Juan AR - Other	-123,486	0	0	0	0	0	0	0	0	0	0	0	0	-123,486
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	133,600	0	0	0	0	0	0	0	0	0	0	0	0	133,600
	825-Clearings	-133,600	0	0	0	0	0	0	0	0	0	0	0	0	-133,600
	Clr Sum	-133,600	0	0	0	0	0	0	0	0	0	0	0	0	-133,600
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117614	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	9,670	0	0	0	0	0	0	0	0	0	0	0	0	9,670
	120-Overtime-General	1,958	0	0	0	0	0	0	0	0	0	0	0	0	1,958
	350-Material Issues-Major	3,490	0	0	0	0	0	0	0	0	0	0	0	0	3,490
	370-Outside Services	233,581	0	0	0	0	0	0	0	0	0	0	0	0	233,581
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	225	0	0	0	0	0	0	0	0	0	0	0	0	225
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	784	0	0	0	0	0	0	0	0	0	0	0	0	784
	914-Pension and Benefits Load	2,896	0	0	0	0	0	0	0	0	0	0	0	0	2,896
	915-Injuries and Damages Load	508	0	0	0	0	0	0	0	0	0	0	0	0	508
	918-San Juan AR-Labor	-7,908	0	0	0	0	0	0	0	0	0	0	0	0	-7,908
	921-Stores / Purchasing Load	1,300	0	0	0	0	0	0	0	0	0	0	0	0	1,300
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,476	0	0	0	0	0	0	0	0	0	0	0	0	2,476
	926-A and G Loads	5,899	0	0	0	0	0	0	0	0	0	0	0	0	5,899
	928-AFUDC Debt Reg	897	0	0	0	0	0	0	0	0	0	0	0	0	897
	929-AFUDC - Equity Regular	1,309	0	0	0	0	0	0	0	0	0	0	0	0	1,309
	937-San Juan AR - Other	-123,486	0	0	0	0	0	0	0	0	0	0	0	0	-123,486
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	133,600	0	0	0	0	0	0	0	0	0	0	0	0	133,600
	825-Clearings	-133,600	0	0	0	0	0	0	0	0	0	0	0	0	-133,600
	Clr Sum	-133,600	0	0	0	0	0	0	0	0	0	0	0	0	-133,600
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76117714 Unit 1 Coal Piping Replacement - 2015***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 5/15/2015

List Interim In-Service Dates

0

Project Need Justification

The equipment which prepares and delivers fuel to the boilers consists of many high wear components that require routine replacement. Major maintenance activities on this equipment meet the criteria for capitalization. Routine maintenance is necessary to sustain reliable operation of the generating unit. The steel piping that is the conveyance path of pulverized coal from the pulverizers to the burners erodes from the abrasion created as the 150 mesh particles travel through the piping. Lack of maintenance will results in holes in the piping and the discharge of coal inside the boiler plant. This is both a fire hazard and a fugitive dust compliance issue. The maintenance is in-kind replacement of worn pipe sections. The costs of this project are for contract labor, materials, project management, and general and administrative loads.

Project Alternatives

This is a major maintenance activity designed to return the systems from worn conditions back to original design specifications, there are no technical alternatives. This activity primarily involves removing and replacing equipment with like equipment. There is an operational alternative which would be to reduce unit output, however, this is not a viable alternative.

Technical Aspects

In kind replacement of thinned piping that conveys pulverized coal from the pulverizers to the burners. On this unit there are sixteen (16) piping runs, each with varying degrees of wear, that are being addressed. This is normal periodic maintenance for this system.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117714	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,237		0	0	0	0	0	0	0	0	0	3,237
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	83,083		0	0	0	0	0	0	0	0	0	83,083
	370-Outside Services	28,025		267,500	0	0	0	0	0	0	0	0	295,525
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	218		0	0	0	0	0	0	0	0	0	218
	914-Pension and Benefits Load	932		0	0	0	0	0	0	0	0	0	932
	915-Injuries and Damages Load	89		0	0	0	0	0	0	0	0	0	89
	918-San Juan AR-Labor	-2,238		0	0	0	0	0	0	0	0	0	-2,238
	921-Stores / Purchasing Load	5,355		0	0	0	0	0	0	0	0	0	5,355
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,513		0	0	0	0	0	0	0	0	0	1,513
	926-A and G Loads	2,710		6,340	0	0	0	0	0	0	0	0	9,050
	928-AFUDC Debt Reg	599		167	0	0	0	0	0	0	0	0	767
	929-AFUDC - Equity Regular	883		239	0	0	0	0	0	0	0	0	1,122
	937-San Juan AR - Other	-60,343		-136,920	0	0	0	0	0	0	0	0	-197,263
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	64,063		137,326	0	0	0	0	0	0	0	0	201,389
	825-Clearings	-67,574		-133,815	0	0	0	0	0	0	0	0	-201,389
	Clr Sum	-67,574		-133,815	0	0	0	0	0	0	0	0	-201,389
	Proj Net	-3,512		3,512	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117714	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,237	0	0	0	0	0	0	0	0	0	0	0	0	3,237
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	83,083	0	0	0	0	0	0	0	0	0	0	0	0	83,083
	370-Outside Services	295,525	0	0	0	0	0	0	0	0	0	0	0	0	295,525
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	218	0	0	0	0	0	0	0	0	0	0	0	0	218
	914-Pension and Benefits Load	932	0	0	0	0	0	0	0	0	0	0	0	0	932
	915-Injuries and Damages Load	89	0	0	0	0	0	0	0	0	0	0	0	0	89
	918-San Juan AR-Labor	-2,238	0	0	0	0	0	0	0	0	0	0	0	0	-2,238
	921-Stores / Purchasing Load	5,355	0	0	0	0	0	0	0	0	0	0	0	0	5,355
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,513	0	0	0	0	0	0	0	0	0	0	0	0	1,513
	926-A and G Loads	9,050	0	0	0	0	0	0	0	0	0	0	0	0	9,050
	928-AFUDC Debt Reg	767	0	0	0	0	0	0	0	0	0	0	0	0	767
	929-AFUDC - Equity Regular	1,122	0	0	0	0	0	0	0	0	0	0	0	0	1,122
	937-San Juan AR - Other	-197,263	0	0	0	0	0	0	0	0	0	0	0	0	-197,263
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	201,389	0	0	0	0	0	0	0	0	0	0	0	0	201,389
	825-Clearings	-201,389	0	0	0	0	0	0	0	0	0	0	0	0	-201,389
	Clr Sum	-201,389	0	0	0	0	0	0	0	0	0	0	0	0	-201,389
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117714	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,237	0	0	0	0	0	0	0	0	0	0	0	0	3,237
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	83,083	0	0	0	0	0	0	0	0	0	0	0	0	83,083
	370-Outside Services	295,525	0	0	0	0	0	0	0	0	0	0	0	0	295,525
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	218	0	0	0	0	0	0	0	0	0	0	0	0	218
	914-Pension and Benefits Load	932	0	0	0	0	0	0	0	0	0	0	0	0	932
	915-Injuries and Damages Load	89	0	0	0	0	0	0	0	0	0	0	0	0	89
	918-San Juan AR-Labor	-2,238	0	0	0	0	0	0	0	0	0	0	0	0	-2,238
	921-Stores / Purchasing Load	5,355	0	0	0	0	0	0	0	0	0	0	0	0	5,355
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,513	0	0	0	0	0	0	0	0	0	0	0	0	1,513
	926-A and G Loads	9,050	0	0	0	0	0	0	0	0	0	0	0	0	9,050
	928-AFUDC Debt Reg	767	0	0	0	0	0	0	0	0	0	0	0	0	767
	929-AFUDC - Equity Regular	1,122	0	0	0	0	0	0	0	0	0	0	0	0	1,122
	937-San Juan AR - Other	-197,263	0	0	0	0	0	0	0	0	0	0	0	0	-197,263
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	201,389	0	0	0	0	0	0	0	0	0	0	0	0	201,389
	825-Clearings	-201,389	0	0	0	0	0	0	0	0	0	0	0	0	-201,389
	Clr Sum	-201,389	0	0	0	0	0	0	0	0	0	0	0	0	-201,389
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76117715    Condenser Retube***

Company:        003  
Location:        761 San Juan

Project Information

Construction Start Date            1/1/2015                      Estimated Completion Date        5/1/2015

List Interim In-Service Dates

0

Project Need Justification

This is one of several projects (see also 76116414, 76116914, 76117715, 76416212, 76117618, and 76717913) relating to upgrading/maintaining the circulating water systems that are comprised primarily of condensers and cooling towers. This system condenses steam leaving the turbine and exhausts the waste heat to the atmosphere. Major maintenance on these components can only occur during extended outage periods. Both San Juan Unit 1 and Unit 4 have 50 day planned outages in 2015. The duration of the outages allows maintenance activities which meet the criteria for capitalization to occur. Eddy current testing on both Unit 1 and Unit 4 condensers indicate accelerated instances of condenser tube thinning. This is confirmed by the increasing rate of lost production due to condenser tube leaks. The Unit 1 cooling tower has significant deterioration in the fan deck and hot water basin. The deterioration is severe to the point it creates an unsafe condition for employees. Electrical equipment and the manholes through which cables are routed are also in need of replacement or reconstruction. The electrical loads currently exceed the short circuit rating of the circuit breakers. The auxiliary cooling tower has damaged and plugged drift eliminators which require replacement for the tower to function properly.

Project 76117715 specifically addresses an in-kind replacement of over 26,000 copper/nickel condenser tubes. As stated above, an increasing rate of tube failures confirms this component has reached its end of life. Each tube failure results in a generating unit outage. Condenser tube leaks contaminate the boiler water chemistry and must result in a shutdown of sufficient duration to locate and plug the leak.

Project 76117715 has been executed under a fixed price furnish and install contract. Other costs in the final total include minor contracted services to handle material, project management, and general and administrative loads.

Project Alternatives

A tube for tube replacement approach has been selected for both condensers. The alternative approach is a modular replacement. The modular approach is roughly twice as costly, but with only minimal additional benefit. There are no functional alternatives to replacing the fan deck and hot water basin. The wood structures are deteriorated and unsafe. There are alternative materials for the fan deck and hot water basin replacements. The material option that has been selected is fiberglass due to its durability.

Technical Aspects

The scope of work for Project 7617715 is a tube for tube replacement of the heat exchanger below the turbine. There are over 26,000 copper/nickel alloy

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117715	Year	2015										
Cost_Type	Bal 3/31/15			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	5,506			0	0	0	0	0	0	0	0	0	5,506
120-Overtime-General	0			0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	72,513			0	0	0	0	0	0	0	0	0	72,513
370-Outside Services	1,841,089			4,000	0	651,500	0	0	0	0	0	0	2,496,589
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	20,606			0	0	0	0	0	0	0	0	0	20,606
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0
610-Expenses - General	19			0	0	0	0	0	0	0	0	0	19
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0			0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	371			0	0	0	0	0	0	0	0	0	371
914-Pension and Benefits Load	1,645			0	0	0	0	0	0	0	0	0	1,645
915-Injuries and Damages Load	230			0	0	0	0	0	0	0	0	0	230
918-San Juan AR-Labor	-3,876			0	0	0	0	0	0	0	0	0	-3,876
921-Stores / Purchasing Load	12,478			0	0	0	0	0	0	0	0	0	12,478
922-Minor Material Load	0			0	0	0	0	0	0	0	0	0	0
925-E and S Loads	33,843			0	0	0	0	0	0	0	0	0	33,843
926-A and G Loads	45,972			95	0	15,441	0	0	0	0	0	0	61,507
928-AFUDC Debt Reg	7,449			-116	0	430	0	0	0	0	0	0	7,762
929-AFUDC - Equity Regular	10,856			-166	0	613	0	0	0	0	0	0	11,304
937-San Juan AR - Other	-1,013,260			-2,047	0	-333,470	0	0	0	0	0	0	-1,348,778
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0
Cost Sum	1,035,440			1,766	0	334,513	0	0	0	0	0	0	1,371,720
825-Clearings	-1,081,490			44,284	0	-334,513	0	0	0	0	0	0	-1,371,720
Clr Sum	-1,081,490			44,284	0	-334,513	0	0	0	0	0	0	-1,371,720
Proj Net	-46,049			46,049	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117715	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,506	0	0	0	0	0	0	0	0	0	0	0	0	5,506
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	72,513	0	0	0	0	0	0	0	0	0	0	0	0	72,513
	370-Outside Services	2,496,589	0	0	0	0	0	0	0	0	0	0	0	0	2,496,589
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	20,606	0	0	0	0	0	0	0	0	0	0	0	0	20,606
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	19
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	371	0	0	0	0	0	0	0	0	0	0	0	0	371
	914-Pension and Benefits Load	1,645	0	0	0	0	0	0	0	0	0	0	0	0	1,645
	915-Injuries and Damages Load	230	0	0	0	0	0	0	0	0	0	0	0	0	230
	918-San Juan AR-Labor	-3,876	0	0	0	0	0	0	0	0	0	0	0	0	-3,876
	921-Stores / Purchasing Load	12,478	0	0	0	0	0	0	0	0	0	0	0	0	12,478
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	33,843	0	0	0	0	0	0	0	0	0	0	0	0	33,843
	926-A and G Loads	61,507	0	0	0	0	0	0	0	0	0	0	0	0	61,507
	928-AFUDC Debt Reg	7,762	0	0	0	0	0	0	0	0	0	0	0	0	7,762
	929-AFUDC - Equity Regular	11,304	0	0	0	0	0	0	0	0	0	0	0	0	11,304
	937-San Juan AR - Other	-1,348,778	0	0	0	0	0	0	0	0	0	0	0	0	-1,348,778
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,371,720	0	0	0	0	0	0	0	0	0	0	0	0	1,371,720
	825-Clearings	-1,371,720	0	0	0	0	0	0	0	0	0	0	0	0	-1,371,720
	Clr Sum	-1,371,720	0	0	0	0	0	0	0	0	0	0	0	0	-1,371,720
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117715	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,506	0	0	0	0	0	0	0	0	0	0	0	0	5,506
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	72,513	0	0	0	0	0	0	0	0	0	0	0	0	72,513
	370-Outside Services	2,496,589	0	0	0	0	0	0	0	0	0	0	0	0	2,496,589
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	20,606	0	0	0	0	0	0	0	0	0	0	0	0	20,606
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	19
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	371	0	0	0	0	0	0	0	0	0	0	0	0	371
	914-Pension and Benefits Load	1,645	0	0	0	0	0	0	0	0	0	0	0	0	1,645
	915-Injuries and Damages Load	230	0	0	0	0	0	0	0	0	0	0	0	0	230
	918-San Juan AR-Labor	-3,876	0	0	0	0	0	0	0	0	0	0	0	0	-3,876
	921-Stores / Purchasing Load	12,478	0	0	0	0	0	0	0	0	0	0	0	0	12,478
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	33,843	0	0	0	0	0	0	0	0	0	0	0	0	33,843
	926-A and G Loads	61,507	0	0	0	0	0	0	0	0	0	0	0	0	61,507
	928-AFUDC Debt Reg	7,762	0	0	0	0	0	0	0	0	0	0	0	0	7,762
	929-AFUDC - Equity Regular	11,304	0	0	0	0	0	0	0	0	0	0	0	0	11,304
	937-San Juan AR - Other	-1,348,778	0	0	0	0	0	0	0	0	0	0	0	0	-1,348,778
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,371,720	0	0	0	0	0	0	0	0	0	0	0	0	1,371,720
	825-Clearings	-1,371,720	0	0	0	0	0	0	0	0	0	0	0	0	-1,371,720
	Clr Sum	-1,371,720	0	0	0	0	0	0	0	0	0	0	0	0	-1,371,720
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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PNM EXHIBIT CMO-3

***Project No: 76117724 Battery Charger Replacement***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 5/1/2015

List Interim In-Service Dates

0

Project Need Justification

The San Juan Unit 1 125V DC battery chargers are obsolete and are a reliability risk. The 125V DC battery system powers emergency protective equipment (e.g. turbine emergency bearing oil pump, generator emergency seal oil pump) and provides voltage for circuit breaker tripping. Battery chargers are needed to maintain the voltage of the DC system and keep the batteries ready for emergency duty. Loss of or unreliability in the 125V DC battery system is an unacceptable risk to power plant operations.

Project Alternatives

The alternative is to continue to maintain the existing equipment but this will become increasingly costly and difficult as replacement parts become harder to find.

The battery chargers being installed are from the industry leader in DC systems (Ametek). The battery chargers on the other San Juan units have already been replaced with the Ametek equipment. The project on Unit 1 will make all San Juan units consistent.

Technical Aspects

In kind replacement of obsolete battery charging equipment. The equipment replacements will be of similar design, but with upgraded materials and solid state controls.

The Battery Charger System shall be comprised of the following:

1. Three (3) Rectifier/Battery Chargers, Tag Numbers Control Battery Charger 1A, Control Battery Charger 1B, and Instrument Battery Charger 1C
2. Two (2) Manual Bypass Switches, Tag Numbers, Bypass Switch 1A and Bypass Switch 1B

The completed system shall be designed and assembled to supply a constant voltage of 125VDC. All equipment, enclosures, and accessories shall be designed, assembled, and connected in accordance with requirements.

Rectifier/Battery Chargers: The rectifier/battery chargers shall be self-regulating, solid-state silicon controlled full wave rectifier type designed for single and parallel operation with a battery system.

Rectifier/Battery Charger Enclosures: All rectifier/battery charger components shall be mounted in a cabinet.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117724	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,417		0	0	0	0	0	0	0	0	0	7,417
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	106,912		0	0	0	0	0	0	0	0	0	106,912
	370-Outside Services	117,120		30,750	0	0	0	0	0	0	0	0	147,870
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	364		0	0	0	0	0	0	0	0	0	364
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	500		0	0	0	0	0	0	0	0	0	500
	914-Pension and Benefits Load	2,198		0	0	0	0	0	0	0	0	0	2,198
	915-Injuries and Damages Load	286		0	0	0	0	0	0	0	0	0	286
	918-San Juan AR-Labor	-5,200		0	0	0	0	0	0	0	0	0	-5,200
	921-Stores / Purchasing Load	1,619		0	0	0	0	0	0	0	0	0	1,619
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,274		0	0	0	0	0	0	0	0	0	3,274
	926-A and G Loads	5,494		729	0	0	0	0	0	0	0	0	6,223
	928-AFUDC Debt Reg	919		342	0	0	0	0	0	0	0	0	1,261
	929-AFUDC - Equity Regular	1,344		488	0	0	0	0	0	0	0	0	1,833
	937-San Juan AR - Other	-117,391		-15,739	0	0	0	0	0	0	0	0	-133,131
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	124,855		16,570	0	0	0	0	0	0	0	0	141,425
	825-Clearings	0		-141,425	0	0	0	0	0	0	0	0	-141,425
	Clr Sum	0		-141,425	0	0	0	0	0	0	0	0	-141,425
	Proj Net	124,855		-124,855	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117724	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,417	0	0	0	0	0	0	0	0	0	0	0	0	7,417
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	106,912	0	0	0	0	0	0	0	0	0	0	0	0	106,912
	370-Outside Services	147,870	0	0	0	0	0	0	0	0	0	0	0	0	147,870
	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	364	0	0	0	0	0	0	0	0	0	0	0	0	364
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	500	0	0	0	0	0	0	0	0	0	0	0	0	500
	914-Pension and Benefits Load	2,198	0	0	0	0	0	0	0	0	0	0	0	0	2,198
	915-Injuries and Damages Load	286	0	0	0	0	0	0	0	0	0	0	0	0	286
	918-San Juan AR-Labor	-5,200	0	0	0	0	0	0	0	0	0	0	0	0	-5,200
	921-Stores / Purchasing Load	1,619	0	0	0	0	0	0	0	0	0	0	0	0	1,619
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,274	0	0	0	0	0	0	0	0	0	0	0	0	3,274
	926-A and G Loads	6,223	0	0	0	0	0	0	0	0	0	0	0	0	6,223
	928-AFUDC Debt Reg	1,261	0	0	0	0	0	0	0	0	0	0	0	0	1,261
	929-AFUDC - Equity Regular	1,833	0	0	0	0	0	0	0	0	0	0	0	0	1,833
	937-San Juan AR - Other	-133,131	0	0	0	0	0	0	0	0	0	0	0	0	-133,131
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	141,425	0	0	0	0	0	0	0	0	0	0	0	0	141,425
	825-Clearings	-141,425	0	0	0	0	0	0	0	0	0	0	0	0	-141,425
	Clr Sum	-141,425	0	0	0	0	0	0	0	0	0	0	0	0	-141,425
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117724	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,417	0	0	0	0	0	0	0	0	0	0	0	0	7,417
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	106,912	0	0	0	0	0	0	0	0	0	0	0	0	106,912
	370-Outside Services	147,870	0	0	0	0	0	0	0	0	0	0	0	0	147,870
	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	364	0	0	0	0	0	0	0	0	0	0	0	0	364
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	500	0	0	0	0	0	0	0	0	0	0	0	0	500
	914-Pension and Benefits Load	2,198	0	0	0	0	0	0	0	0	0	0	0	0	2,198
	915-Injuries and Damages Load	286	0	0	0	0	0	0	0	0	0	0	0	0	286
	918-San Juan AR-Labor	-5,200	0	0	0	0	0	0	0	0	0	0	0	0	-5,200
	921-Stores / Purchasing Load	1,619	0	0	0	0	0	0	0	0	0	0	0	0	1,619
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,274	0	0	0	0	0	0	0	0	0	0	0	0	3,274
	926-A and G Loads	6,223	0	0	0	0	0	0	0	0	0	0	0	0	6,223
	928-AFUDC Debt Reg	1,261	0	0	0	0	0	0	0	0	0	0	0	0	1,261
	929-AFUDC - Equity Regular	1,833	0	0	0	0	0	0	0	0	0	0	0	0	1,833
	937-San Juan AR - Other	-133,131	0	0	0	0	0	0	0	0	0	0	0	0	-133,131
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	141,425	0	0	0	0	0	0	0	0	0	0	0	0	141,425
	825-Clearings	-141,425	0	0	0	0	0	0	0	0	0	0	0	0	-141,425
	Clr Sum	-141,425	0	0	0	0	0	0	0	0	0	0	0	0	-141,425
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Project No: 76117733 Unit 1 Arc Flash Mitigation**

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 12/30/2015

List Interim In-Service Dates

0

Project Need Justification

Arc flashes occur when a short circuit condition is created and has the potential to cause severe burns or even death. This project addresses new safety standards for exposure to potential arc flash energy. OSHA regulations regarding exposure to potential arc flash energy have become more stringent since the San Juan Plant was designed and constructed. Solid state relays can be used to control arc flash incident energy.

This project will implement a method to provide protection while minimizing the impact of miscoordination of protective relays through the installation of "maintenance" switches. These are external switches that are wired into a circuit breaker or relay to allow an operator to select between "normal" and "maintenance" settings. In "normal" mode, the breaker or relay is typically set for normal selective coordination, which may result in a high incident energy level downstream. As long as no workers are present, this may be acceptable. When work is being performed, the switch is turned to the "maintenance" setting, which modifies the trip settings of the device (making them lower and/or faster), which is intended to reduce the incident energy levels downstream. This may also result in a sacrifice of selective coordination, but the idea is that the "maintenance" setting is to be used only when workers are actually present, when protection of personnel takes priority. When work is complete, the system is then returned to "normal" mode.

The project funds cover the cost of engineering, materials, contract labor for installation, project management and general and administrative loads.

Project Alternatives

The existing electromechanical relays could continue to be maintained but the task will become increasingly difficult as parts become less available. The alternative for compliance with arc flash exposure standards is personal protective equipment for employees assigned to task where arc flash exposure exists. This alternative has been rejected as it does not provide the degree of employee protection produced through the selected alternative.

Technical Aspects

Install relays and maintenance switches which will reduce the available arc flash incident energy. This project is part of a multiyear program to replace

electromechanical relays with solid state relays. The relays are located in all areas of the plant - each unit, common areas and the switchyard.

1. Bus 1A - Cubicle #4
2. Bus 1A - Cubicle #11

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

3. Bus 1A - Cubicle #14
4. Bus 1A - Cubicle #15
5. Bus 1A - Cubicle #16
6. Bus 1B - Cubicle #15
7. Bus 1B - Cubicle #16
8. Bus 1B - Cubicle #12
9. Bus 01A - Cubicle #21612
10. Bus 01A - Cubicle #21812
11. Bus 01B - Cubicle #13
12. Bus 01A - Cubicle #21712
13. Bus 01B - Cubicle #21912
14. Switchgear 01AA - Cubicle #1
15. Bus 1B - Cubicle #4
16. Bus 1B - Cubicle #11
17. Bus 01B - Cubicle #5
18. Bus 01B - Cubicle #7

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117733	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	10,826		0	0	0	0	0	0	0	0	0	10,826
	120-Overtime-General	2,965		0	0	0	0	0	0	0	0	0	2,965
	350-Material Issues-Major	89,918		0	0	0	0	0	0	0	0	0	89,918
	370-Outside Services	185,927		10,000	0	0	0	0	0	0	0	0	195,927
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	68		0	0	0	0	0	0	0	0	0	68
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	929		0	0	0	0	0	0	0	0	0	929
	914-Pension and Benefits Load	3,264		0	0	0	0	0	0	0	0	0	3,264
	915-Injuries and Damages Load	635		0	0	0	0	0	0	0	0	0	635
	918-San Juan AR-Labor	-9,309		0	0	0	0	0	0	0	0	0	-9,309
	921-Stores / Purchasing Load	2,051		0	0	0	0	0	0	0	0	0	2,051
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,577		0	0	0	0	0	0	0	0	0	3,577
	926-A and G Loads	6,866		237	0	0	0	0	0	0	0	0	7,103
	928-AFUDC Debt Reg	696		407	0	0	0	0	0	0	0	0	1,103
	929-AFUDC - Equity Regular	1,028		581	0	0	0	0	0	0	0	0	1,609
	937-San Juan AR - Other	-144,204		-5,119	0	0	0	0	0	0	0	0	-149,322
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	155,237		6,106	0	0	0	0	0	0	0	0	161,343
	825-Clearings	0		-161,343	0	0	0	0	0	0	0	0	-161,343
	Clr Sum	0		-161,343	0	0	0	0	0	0	0	0	-161,343
	Proj Net	155,237		-155,237	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117733	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	10,826	0	0	0	0	0	0	0	0	0	0	0	0	10,826
	120-Overtime-General	2,965	0	0	0	0	0	0	0	0	0	0	0	0	2,965
	350-Material Issues-Major	89,918	0	0	0	0	0	0	0	0	0	0	0	0	89,918
	370-Outside Services	195,927	0	0	0	0	0	0	0	0	0	0	0	0	195,927
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	68	0	0	0	0	0	0	0	0	0	0	0	0	68
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	929	0	0	0	0	0	0	0	0	0	0	0	0	929
	914-Pension and Benefits Load	3,264	0	0	0	0	0	0	0	0	0	0	0	0	3,264
	915-Injuries and Damages Load	635	0	0	0	0	0	0	0	0	0	0	0	0	635
	918-San Juan AR-Labor	-9,309	0	0	0	0	0	0	0	0	0	0	0	0	-9,309
	921-Stores / Purchasing Load	2,051	0	0	0	0	0	0	0	0	0	0	0	0	2,051
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,577	0	0	0	0	0	0	0	0	0	0	0	0	3,577
	926-A and G Loads	7,103	0	0	0	0	0	0	0	0	0	0	0	0	7,103
	928-AFUDC Debt Reg	1,103	0	0	0	0	0	0	0	0	0	0	0	0	1,103
	929-AFUDC - Equity Regular	1,609	0	0	0	0	0	0	0	0	0	0	0	0	1,609
	937-San Juan AR - Other	-149,322	0	0	0	0	0	0	0	0	0	0	0	0	-149,322
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	161,343	0	0	0	0	0	0	0	0	0	0	0	0	161,343
	825-Clearings	-161,343	0	0	0	0	0	0	0	0	0	0	0	0	-161,343
	Clr Sum	-161,343	0	0	0	0	0	0	0	0	0	0	0	0	-161,343
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117733	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	10,826	0	0	0	0	0	0	0	0	0	0	0	0	10,826
	120-Overtime-General	2,965	0	0	0	0	0	0	0	0	0	0	0	0	2,965
	350-Material Issues-Major	89,918	0	0	0	0	0	0	0	0	0	0	0	0	89,918
	370-Outside Services	195,927	0	0	0	0	0	0	0	0	0	0	0	0	195,927
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	68	0	0	0	0	0	0	0	0	0	0	0	0	68
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	929	0	0	0	0	0	0	0	0	0	0	0	0	929
	914-Pension and Benefits Load	3,264	0	0	0	0	0	0	0	0	0	0	0	0	3,264
	915-Injuries and Damages Load	635	0	0	0	0	0	0	0	0	0	0	0	0	635
	918-San Juan AR-Labor	-9,309	0	0	0	0	0	0	0	0	0	0	0	0	-9,309
	921-Stores / Purchasing Load	2,051	0	0	0	0	0	0	0	0	0	0	0	0	2,051
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,577	0	0	0	0	0	0	0	0	0	0	0	0	3,577
	926-A and G Loads	7,103	0	0	0	0	0	0	0	0	0	0	0	0	7,103
	928-AFUDC Debt Reg	1,103	0	0	0	0	0	0	0	0	0	0	0	0	1,103
	929-AFUDC - Equity Regular	1,609	0	0	0	0	0	0	0	0	0	0	0	0	1,609
	937-San Juan AR - Other	-149,322	0	0	0	0	0	0	0	0	0	0	0	0	-149,322
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	161,343	0	0	0	0	0	0	0	0	0	0	0	0	161,343
	825-Clearings	-161,343	0	0	0	0	0	0	0	0	0	0	0	0	-161,343
	Clr Sum	-161,343	0	0	0	0	0	0	0	0	0	0	0	0	-161,343
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76117744 Unit 1 Bottom Ash Casing Replacement***

Company: 003  
Location: 761 San Juan

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 3/31/2015

List Interim In-Service Dates

0

Project Need Justification

This is a major maintenance activity designed to return the asset from worn conditions back to original design specifications. This activity involves the removal and replacement of in-kind equipment.

Specifically this project is the replacement of the boiler seal skirt. The boiler seal skirt is a metal plate, attached to the floor tubes of the boiler, that extends down into a water filled seal trough. The plate is designed to maintain the pressure seal between the inside of the boiler and the external environment. As the boiler heats up, the length of the boiler expands and the seal skirt is driven deeper into the water filled seal trough. As the boiler cools it retracts, pulling the seal skirt higher up in the water filled seal trough

Sulfur in the coal reacts with water of the vacuum seal to form a weak sulfuric acid which attacks the metal of the expansion seal. Heat intensifies the problem. The weak sulfuric acid attacks the dipper plate (seal skirt) and trough of the expansion seal. Corrosion results in loss of vacuum and a host of problems. The loss of the vacuum causes a unit shutdown.

Due to corrosion and other wear, the seal skirt requires periodic replacement. The scope of work includes funding for materials, contract labor, project management and general and administrative loads.

Project Alternatives

There are two alternatives: 1) the "do nothing" alternative which is to accept the operational impact of the deteriorated seal skirt and accept a lower unit reliability and 2) replace the seal skirt in-kind. Alternative one is not viable as a lower unit reliability is unacceptable.

Technical Aspects

In kind replacement of the boiler seal skirt and bottom ash refractory cooling water headers. This work is complete.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117744	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0			
350-Material Issues-Major	181,706	0	0	0	0	0	0	0	0	0	181,706			
370-Outside Services	455,753	244,550	0	-216,000	0	0	0	0	0	0	484,303			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0			
921-Stores / Purchasing Load	2,307	0	0	0	0	0	0	0	0	0	2,307			
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0			
925-E and S Loads	6,919	0	0	0	0	0	0	0	0	0	6,919			
926-A and G Loads	15,108	5,796	0	-5,119	0	0	0	0	0	0	15,784			
928-AFUDC Debt Reg	738	1,019	0	-142	0	0	0	0	0	0	1,614			
929-AFUDC - Equity Regular	1,117	1,455	0	-203	0	0	0	0	0	0	2,368			
937-San Juan AR - Other	-330,897	-125,173	0	110,560	0	0	0	0	0	0	-345,510			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	332,752	127,646	0	-110,905	0	0	0	0	0	0	349,492			
825-Clearings	0	-460,398	0	110,905	0	0	0	0	0	0	-349,492			
Clr Sum	0	-460,398	0	110,905	0	0	0	0	0	0	-349,492			
Proj Net	332,752	-332,752	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117744	Year	2016												
	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	181,706	0	0	0	0	0	0	0	0	0	0	0	0	181,706
	370-Outside Services	484,303	0	0	0	0	0	0	0	0	0	0	0	0	484,303
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	2,307	0	0	0	0	0	0	0	0	0	0	0	0	2,307
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	6,919	0	0	0	0	0	0	0	0	0	0	0	0	6,919
	926-A and G Loads	15,784	0	0	0	0	0	0	0	0	0	0	0	0	15,784
	928-AFUDC Debt Reg	1,614	0	0	0	0	0	0	0	0	0	0	0	0	1,614
	929-AFUDC - Equity Regular	2,368	0	0	0	0	0	0	0	0	0	0	0	0	2,368
	937-San Juan AR - Other	-345,510	0	0	0	0	0	0	0	0	0	0	0	0	-345,510
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	349,492	0	0	0	0	0	0	0	0	0	0	0	0	349,492
	825-Clearings	-349,492	0	0	0	0	0	0	0	0	0	0	0	0	-349,492
	Clr Sum	-349,492	0	0	0	0	0	0	0	0	0	0	0	0	-349,492
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117744	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	181,706	0	0	0	0	0	0	0	0	0	0	0	0	181,706
	370-Outside Services	484,303	0	0	0	0	0	0	0	0	0	0	0	0	484,303
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	2,307	0	0	0	0	0	0	0	0	0	0	0	0	2,307
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	6,919	0	0	0	0	0	0	0	0	0	0	0	0	6,919
	926-A and G Loads	15,784	0	0	0	0	0	0	0	0	0	0	0	0	15,784
	928-AFUDC Debt Reg	1,614	0	0	0	0	0	0	0	0	0	0	0	0	1,614
	929-AFUDC - Equity Regular	2,368	0	0	0	0	0	0	0	0	0	0	0	0	2,368
	937-San Juan AR - Other	-345,510	0	0	0	0	0	0	0	0	0	0	0	0	-345,510
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	349,492	0	0	0	0	0	0	0	0	0	0	0	0	349,492
	825-Clearings	-349,492	0	0	0	0	0	0	0	0	0	0	0	0	-349,492
	Clr Sum	-349,492	0	0	0	0	0	0	0	0	0	0	0	0	-349,492
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76117749 Automatic Voltage Regulator Replacement***

Company: 003  
Location: 761 San Juan

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 6/30/2015

List Interim In-Service Dates

0

Project Need Justification

This project addresses equipment obsolescence issues. Replacement of critical equipment is necessary to sustain unit reliability. The Unit 1 automatic voltage regulator, specifically, has had deteriorating reliability and its poor performance can become a North America Electric Reliability Council (NERC) issue.

Recent misoperations of generation protection during major system disturbances have highlighted the need for 1) better coordination of generator protection with generator capability, 2) generator Automatic Voltage Regulator (AVR) control and 3) transmission system protection. Generator protection misoperations contributed to the 1996 outages in the western U.S. and played a key role in the 2003 U.S. East Coast blackout. Since most recent major power system disturbances are the result of voltage collapse, generator protection must be secured during low voltage system conditions while still providing generator protection. The generator AVR needs to properly control VAr support to rapidly stabilize system voltage during major disturbances to ensure that the unit remains on-line and capable of delivering power to the system.

The generator AVR uses the generator terminal voltage and phase current to calculate generator operating conditions. By comparing the actual point of operation to the desired level, the AVR determines when it is appropriate to adjust the generator field current to maintain the desired generator operating voltage.

In disturbances where short circuits depress the system voltage, electrical power cannot fully be delivered to the transmission system. Fast response of the AVR and excitation system helps to increase the synchronizing torque to allow the generator to remain in synchronism with the system. AVR control limiters are used to prevent the AVR from imposing unacceptable conditions upon the generator.

The AVR is the first line of defense in protecting the generator from conditions that have detrimental and/or catastrophic effects on the equipment. If the AVR fails; the protective relays take over and trip the unit, causing a complete and immediate loss of generation. A functioning and reliable AVR is essential for unit reliability.

Project Alternatives

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

The alternative is to continue to maintain the existing equipment but this will become increasingly costly and difficult as replacement parts become harder to find. Coupled with the risk of a NERC issue, the increasingly difficult maintenance of the voltage regulator reinforces the chosen alternative to replace the voltage regulator.

#### Technical Aspects

The equipment replacement will be of similar design but with upgraded materials and solid state controls.

This project includes supplying of the following

- One (1) AVR System, Tag Numbers U1 Generator AVR System. The AVR equipment, enclosures, and accessories shall be designed, assembled, and connected in accordance with requirements of the specifications.
- VAR/Power Factor Control: The AVR shall be capable of maintaining constant Power factor or constant VARS.
- REDUNDANCY: A full function backup AVR shall be installed to provide system redundancy.
- AVR DATA LOGGING AND MONITORING: The AVR shall provide oscillography and sequence of events as specified in the attached Data Sheet.
- Current Transformers (CT's): The Seller shall reuse existing provide CT's for AVR metering, controls and protection. CT's shall be molded case toroidal type and shall be wired to shorting type terminal blocks. CT's shall be in accordance with applicable ANSI standards. Ratings shall be determined by the Seller.
- PROTECTION: The AVR shall contain protection functions for the excitation system including Field Overvoltage, Generator Over/Under Voltage, Field Overcurrent, Loss of Voltage Sensing, Loss of Field, Main Field Ground, Exciter Field Ground, and Volts-per-hertz. Set-points shall be selectable via programmable logic.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117749	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	22,079		0	0	0	0	0	0	0	0	0	22,079
	120-Overtime-General	5,293		0	0	0	0	0	0	0	0	0	5,293
	350-Material Issues-Major	271,868		0	0	0	0	0	0	0	0	0	271,868
	370-Outside Services	248,776		99,000	0	134,000	0	0	0	0	0	0	481,776
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	2,205		0	0	0	0	0	0	0	0	0	2,205
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,845		0	0	0	0	0	0	0	0	0	1,845
	914-Pension and Benefits Load	6,643		0	0	0	0	0	0	0	0	0	6,643
	915-Injuries and Damages Load	1,241		0	0	0	0	0	0	0	0	0	1,241
	918-San Juan AR-Labor	-18,550		0	0	0	0	0	0	0	0	0	-18,550
	921-Stores / Purchasing Load	3,563		0	0	0	0	0	0	0	0	0	3,563
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	7,466		0	0	0	0	0	0	0	0	0	7,466
	926-A and G Loads	13,040		2,346	0	3,176	0	0	0	0	0	0	18,562
	928-AFUDC Debt Reg	1,761		829	0	88	0	0	0	0	0	0	2,678
	929-AFUDC - Equity Regular	2,585		1,184	0	126	0	0	0	0	0	0	3,894
	937-San Juan AR - Other	-273,459		-50,673	0	-68,588	0	0	0	0	0	0	-392,720
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	296,354		52,686	0	68,802	0	0	0	0	0	0	417,842
	825-Clearings	0		-349,040	0	-68,802	0	0	0	0	0	0	-417,842
	Clr Sum	0		-349,040	0	-68,802	0	0	0	0	0	0	-417,842
	Proj Net	296,354		-296,354	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117749	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	22,079	0	0	0	0	0	0	0	0	0	0	0	0	22,079
	120-Overtime-General	5,293	0	0	0	0	0	0	0	0	0	0	0	0	5,293
	350-Material Issues-Major	271,868	0	0	0	0	0	0	0	0	0	0	0	0	271,868
	370-Outside Services	481,776	0	0	0	0	0	0	0	0	0	0	0	0	481,776
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	2,205	0	0	0	0	0	0	0	0	0	0	0	0	2,205
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	1,845	0	0	0	0	0	0	0	0	0	0	0	0	1,845
	914-Pension and Benefits Load	6,643	0	0	0	0	0	0	0	0	0	0	0	0	6,643
	915-Injuries and Damages Load	1,241	0	0	0	0	0	0	0	0	0	0	0	0	1,241
	918-San Juan AR-Labor	-18,550	0	0	0	0	0	0	0	0	0	0	0	0	-18,550
	921-Stores / Purchasing Load	3,563	0	0	0	0	0	0	0	0	0	0	0	0	3,563
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	7,466	0	0	0	0	0	0	0	0	0	0	0	0	7,466
	926-A and G Loads	18,562	0	0	0	0	0	0	0	0	0	0	0	0	18,562
	928-AFUDC Debt Reg	2,678	0	0	0	0	0	0	0	0	0	0	0	0	2,678
	929-AFUDC - Equity Regular	3,894	0	0	0	0	0	0	0	0	0	0	0	0	3,894
	937-San Juan AR - Other	-392,720	0	0	0	0	0	0	0	0	0	0	0	0	-392,720
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	417,842	0	0	0	0	0	0	0	0	0	0	0	0	417,842
	825-Clearings	-417,842	0	0	0	0	0	0	0	0	0	0	0	0	-417,842
	Clr Sum	-417,842	0	0	0	0	0	0	0	0	0	0	0	0	-417,842
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117749	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	22,079	0	0	0	0	0	0	0	0	0	0	0	0	22,079
	120-Overtime-General	5,293	0	0	0	0	0	0	0	0	0	0	0	0	5,293
	350-Material Issues-Major	271,868	0	0	0	0	0	0	0	0	0	0	0	0	271,868
	370-Outside Services	481,776	0	0	0	0	0	0	0	0	0	0	0	0	481,776
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	2,205	0	0	0	0	0	0	0	0	0	0	0	0	2,205
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	1,845	0	0	0	0	0	0	0	0	0	0	0	0	1,845
	914-Pension and Benefits Load	6,643	0	0	0	0	0	0	0	0	0	0	0	0	6,643
	915-Injuries and Damages Load	1,241	0	0	0	0	0	0	0	0	0	0	0	0	1,241
	918-San Juan AR-Labor	-18,550	0	0	0	0	0	0	0	0	0	0	0	0	-18,550
	921-Stores / Purchasing Load	3,563	0	0	0	0	0	0	0	0	0	0	0	0	3,563
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	7,466	0	0	0	0	0	0	0	0	0	0	0	0	7,466
	926-A and G Loads	18,562	0	0	0	0	0	0	0	0	0	0	0	0	18,562
	928-AFUDC Debt Reg	2,678	0	0	0	0	0	0	0	0	0	0	0	0	2,678
	929-AFUDC - Equity Regular	3,894	0	0	0	0	0	0	0	0	0	0	0	0	3,894
	937-San Juan AR - Other	-392,720	0	0	0	0	0	0	0	0	0	0	0	0	-392,720
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	417,842	0	0	0	0	0	0	0	0	0	0	0	0	417,842
	825-Clearings	-417,842	0	0	0	0	0	0	0	0	0	0	0	0	-417,842
	Clr Sum	-417,842	0	0	0	0	0	0	0	0	0	0	0	0	-417,842
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76117821 SJ U1 feed pump supervisory instrumentation***

Company: 003  
Location: 761 San Juan

**Project Information**

Construction Start Date 5/1/2015 Estimated Completion Date 5/1/2015

List Interim In-Service Dates

These systems will be in service by December 31, 2014

Project Need Justification

San Juan Generating Station has suffered multiple events resulting in significant damage to its boiler feed pumps. Loss of a boiler feed pump causes an immediate unit derate to at least 50% of rated output capacity. It typically takes four to six weeks to repair a damaged boiler feed pump and return it to service. Operating a generating unit at 50% capacity for four to six weeks is a significant financial loss to PNM.

Root cause analyses performed on boiler feed pump failure events have determined that old and or obsolete supervisory systems are a main contributing factor to the boiler feed pump failures. While the number of incidents have been greater on Units 3 and 4, the same reliability risk associated with an obsolete supervisory panel exists on Unit 1. The purpose of this project is to replace the obsolete feed pump supervisory panel. This will reduce the risk of a boiler feed pump failure and its resulting extended derate.

A supervisory panel is a group of instruments that monitor bearing vibrations, thrust, case expansion, differential expansion, shaft eccentricity and shaft speed. This information is predictive in nature and provides early warning of a potential failure conditions. Plant operators are able to react to the information and take steps to avoid the failure condition.

The funds for this project account for sensing devices, signal processors, cables, conduit, engineering, contract labor for installation, project management, and general and administrative loads.

Project Alternatives

Bentley Nevada is the industry leader in supervisory instrumentation and has been deployed as the standard at San Juan Generating Station. The Unit 1 supervisory panel will be a Bentley Nevada product. This provides the benefits of commonality of spare parts and training.

There are other manufacturers of supervisory instrumentation but the advantages of having uniformity across all units drive the decision to select Bentley Nevada equipment.

#### Technical Aspects

Sensing instruments will be mounted on the boiler feed pump. Specifically the sensors and their individual functions are:

- Rotor axial position In conjunction with cylinder expansion measurements, this enables the relative axial movement to be measured so that adequate clearance margins are maintained under all conditions of operation. Typically this measurement is provided on each cylinder of the machine.
- Cylinder expansions In addition to its use in determining clearance margins between the rotor and cylinders, differential measurement systems are provided to monitor the expansion and movement of cylinders relative to each other and their support structures. Measurements are provided on each cylinder of the machine
- Bearing pedestal vibrations These are measured at each bearing to continuously monitor the dynamic behavior of the machine
- Shaft eccentricity The peak-to-peak radial excursion of the rotor relative to the non-rotating parts is measured on each rotor to monitor qualitative changes in the behavior of the rotor which may indicate abnormal or unsafe conditions
- Shaft speed A single measurement of shaft speed is required, independent of the turbine governor, for operator reference, particularly during turbine run-up
- Steam valve positions An analogue measurement of the position of each steam valve is useful to the operator for general reference, to check the capability for carrying more load or for assistance in fault finding
- Metal temperature measurements These provide a knowledge of the thermal state of the turbine during both transient and steady state operation. Measuring points are located in the walls of the HP and interceptor steam valve chests, and in the HP and IP cylinders
- Thrust bearing wear This measurement ensures that thrust pads wear is maintained within safe design limits

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117821	Year	2015									
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	87,751	0	0	0	0	0	0	0	0	0	87,751
	120-Overtime-General	10,321	0	0	0	0	0	0	0	0	0	10,321
	350-Material Issues-Major	233,188	0	0	0	0	0	0	0	0	0	233,188
	370-Outside Services	1,439	37,500	25,500	0	0	0	0	0	0	0	64,439
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	34	0	0	0	0	0	0	0	0	0	34
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	7,102	0	0	0	0	0	0	0	0	0	7,102
	914-Pension and Benefits Load	29,987	0	0	0	0	0	0	0	0	0	29,987
	915-Injuries and Damages Load	3,216	0	0	0	0	0	0	0	0	0	3,216
	918-San Juan AR-Labor	-69,188	0	0	0	0	0	0	0	0	0	-69,188
	921-Stores / Purchasing Load	1,515	0	0	0	0	0	0	0	0	0	1,515
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,326	0	0	0	0	0	0	0	0	0	1,326
	926-A and G Loads	8,069	889	604	0	0	0	0	0	0	0	9,562
	928-AFUDC Debt Reg	10,321	575	17	34	0	0	0	0	0	0	10,947
	929-AFUDC - Equity Regular	11,229	821	24	48	0	0	0	0	0	0	12,122
	937-San Juan AR - Other	-122,786	-19,194	-13,052	0	0	0	0	0	0	0	-155,032
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	213,524	20,590	13,093	82	0	0	0	0	0	0	247,289
	825-Clearings	0	-234,114	0	-13,175	0	0	0	0	0	0	-247,289
	Clr Sum	0	-234,114	0	-13,175	0	0	0	0	0	0	-247,289
Proj Net		213,524	-213,524	13,093	-13,093	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117821	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	87,751	0	0	0	0	0	0	0	0	0	0	0	0	87,751
	120-Overtime-General	10,321	0	0	0	0	0	0	0	0	0	0	0	0	10,321
	350-Material Issues-Major	233,188	0	0	0	0	0	0	0	0	0	0	0	0	233,188
	370-Outside Services	64,439	0	0	0	0	0	0	0	0	0	0	0	0	64,439
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	34	0	0	0	0	0	0	0	0	0	0	0	0	34
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	7,102	0	0	0	0	0	0	0	0	0	0	0	0	7,102
	914-Pension and Benefits Load	29,987	0	0	0	0	0	0	0	0	0	0	0	0	29,987
	915-Injuries and Damages Load	3,216	0	0	0	0	0	0	0	0	0	0	0	0	3,216
	918-San Juan AR-Labor	-69,188	0	0	0	0	0	0	0	0	0	0	0	0	-69,188
	921-Stores / Purchasing Load	1,515	0	0	0	0	0	0	0	0	0	0	0	0	1,515
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,326	0	0	0	0	0	0	0	0	0	0	0	0	1,326
	926-A and G Loads	9,562	0	0	0	0	0	0	0	0	0	0	0	0	9,562
	928-AFUDC Debt Reg	10,947	0	0	0	0	0	0	0	0	0	0	0	0	10,947
	929-AFUDC - Equity Regular	12,122	0	0	0	0	0	0	0	0	0	0	0	0	12,122
	937-San Juan AR - Other	-155,032	0	0	0	0	0	0	0	0	0	0	0	0	-155,032
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	247,289	0	0	0	0	0	0	0	0	0	0	0	0	247,289
	825-Clearings	-247,289	0	0	0	0	0	0	0	0	0	0	0	0	-247,289
	Clr Sum	-247,289	0	0	0	0	0	0	0	0	0	0	0	0	-247,289
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117821	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	87,751	0	0	0	0	0	0	0	0	0	0	0	0	87,751
	120-Overtime-General	10,321	0	0	0	0	0	0	0	0	0	0	0	0	10,321
	350-Material Issues-Major	233,188	0	0	0	0	0	0	0	0	0	0	0	0	233,188
	370-Outside Services	64,439	0	0	0	0	0	0	0	0	0	0	0	0	64,439
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	34	0	0	0	0	0	0	0	0	0	0	0	0	34
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	7,102	0	0	0	0	0	0	0	0	0	0	0	0	7,102
	914-Pension and Benefits Load	29,987	0	0	0	0	0	0	0	0	0	0	0	0	29,987
	915-Injuries and Damages Load	3,216	0	0	0	0	0	0	0	0	0	0	0	0	3,216
	918-San Juan AR-Labor	-69,188	0	0	0	0	0	0	0	0	0	0	0	0	-69,188
	921-Stores / Purchasing Load	1,515	0	0	0	0	0	0	0	0	0	0	0	0	1,515
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,326	0	0	0	0	0	0	0	0	0	0	0	0	1,326
	926-A and G Loads	9,562	0	0	0	0	0	0	0	0	0	0	0	0	9,562
	928-AFUDC Debt Reg	10,947	0	0	0	0	0	0	0	0	0	0	0	0	10,947
	929-AFUDC - Equity Regular	12,122	0	0	0	0	0	0	0	0	0	0	0	0	12,122
	937-San Juan AR - Other	-155,032	0	0	0	0	0	0	0	0	0	0	0	0	-155,032
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	247,289	0	0	0	0	0	0	0	0	0	0	0	0	247,289
	825-Clearings	-247,289	0	0	0	0	0	0	0	0	0	0	0	0	-247,289
	Clr Sum	-247,289	0	0	0	0	0	0	0	0	0	0	0	0	-247,289
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76128014 Unit 1 Foxboro I/A Version 8.8 Nerc***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 3/31/2015

List Interim In-Service Dates

0

Project Need Justification

The scope of this project is to replace the existing Foxboro I/A version 8.7 operating system for the Unit 1 Distributed Control System (DCS) with a supported Operating System (Foxboro I/A Version 8.8); Foxboro Version 8.7 system support is ending. This upgrade includes hardware for server class machines and new Operator Human Machine Interfaces. The new control network software allows for adaptation of servers, switches and fiber. The virtual machines allows for a more robust setup for Operators and the DCS System. Without support, reliability issues, security, and other control system problems cannot be resolved.

Version 8.8 of I/A requires a supported infrastructure, including but not limited to Operating Systems, software, and virtual infrastructure. Prior versions will no longer be patched and are vulnerable to problems that will not be resolved by the vendor.

Additional benefits include faster throughput, with communication speeds of 1 Gb per second possible. There are point-to-point data routing allowing multiple communications to run simultaneously, greater reliability with alternate communications paths between all stations, and the “self-healing” design is utilized. The control network provides fast response to faults with redundancy at every level. There is increased distances supported which allows for better plant topology match. The upgraded software allows for standard fiber optic and switch technology (no proprietary cell busses, packaging or networks) to be utilized.

Workstations are moved to reliable, server-class as well as multi-purpose workstations based on the latest technology. The multipurpose workstations provide a versatile and robust platform for human to machine interface, data acquisition, historian, engineering and configuration functions and applications. All workstations support annunciator keyboards and up to four monitors.

The project will provide versatile workstations in general-purpose rack mounted configuration. Operator workstations will utilize thin-client technology and new wide aspect monitors, with redundant fiber Ethernet connections to the plant control network to support high availability communications.

In summary, the project will provide better control through improved communications throughout the system, higher speed, and longer distances allowed for better match with plant topology. All the fiber networks eliminate electrical noise and grounding.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

The project cost includes engineering, materials, internal labor, technical support, project management, and general and administrative loads.

#### Project Alternatives

There are no viable alternatives to this project. The Distributed Control System (DCS) is a proprietary product. The Original Equipment Manufacturer (OEM) is discontinuing support for the version of software installed on the Unit 1 DCS. The software upgrade requires upgraded hardware (servers) to support the new software. Replacing the existing DCS with a system from another manufacturer is an option, however, the cost and time required to replace the DCS are prohibitive as it will require the selection, purchase and implementation of an unfamiliar system.

#### Technical Aspects

The scope of work includes upgrading the operating software to the latest release, replacing existing servers with "thin client" servers, replacing control room monitors and keyboards to devices that are compatible with the new servers.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76128014	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	11,894		0	0	0	0	0	0	0	0	0	11,894
	120-Overtime-General	6,471		0	0	0	0	0	0	0	0	0	6,471
	350-Material Issues-Major	163,588		0	0	0	0	0	0	0	0	0	163,588
	370-Outside Services	0		5,500	0	0	0	0	0	0	0	0	5,500
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	68		0	0	0	0	0	0	0	0	0	68
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		460	0	0	0	0	0	0	0	0	460
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,238		0	0	0	0	0	0	0	0	0	1,238
	914-Pension and Benefits Load	3,606		0	0	0	0	0	0	0	0	0	3,606
	915-Injuries and Damages Load	881		0	0	0	0	0	0	0	0	0	881
	918-San Juan AR-Labor	-12,045		0	0	0	0	0	0	0	0	0	-12,045
	921-Stores / Purchasing Load	1,096		0	0	0	0	0	0	0	0	0	1,096
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,662		0	0	0	0	0	0	0	0	0	2,662
	926-A and G Loads	4,314		130	0	0	0	0	0	0	0	0	4,444
	928-AFUDC Debt Reg	945		0	0	0	0	0	0	0	0	0	945
	929-AFUDC - Equity Regular	1,387		0	0	0	0	0	0	0	0	0	1,387
	937-San Juan AR - Other	-85,864		-2,815	0	0	0	0	0	0	0	0	-88,679
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	100,241		3,275	0	0	0	0	0	0	0	0	103,515
	825-Clearings	0		-103,515	0	0	0	0	0	0	0	0	-103,515
	Clr Sum	0		-103,515	0	0	0	0	0	0	0	0	-103,515
Proj Net		100,241		-100,241	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76128014	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	11,894	0	0	0	0	0	0	0	0	0	0	0	0	11,894
	120-Overtime-General	6,471	0	0	0	0	0	0	0	0	0	0	0	0	6,471
	350-Material Issues-Major	163,588	0	0	0	0	0	0	0	0	0	0	0	0	163,588
	370-Outside Services	5,500	0	0	0	0	0	0	0	0	0	0	0	0	5,500
	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	68	0	0	0	0	0	0	0	0	0	0	0	0	68
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	460	0	0	0	0	0	0	0	0	0	0	0	0	460
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,238	0	0	0	0	0	0	0	0	0	0	0	0	1,238
	914-Pension and Benefits Load	3,606	0	0	0	0	0	0	0	0	0	0	0	0	3,606
	915-Injuries and Damages Load	881	0	0	0	0	0	0	0	0	0	0	0	0	881
	918-San Juan AR-Labor	-12,045	0	0	0	0	0	0	0	0	0	0	0	0	-12,045
	921-Stores / Purchasing Load	1,096	0	0	0	0	0	0	0	0	0	0	0	0	1,096
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,662	0	0	0	0	0	0	0	0	0	0	0	0	2,662
	926-A and G Loads	4,444	0	0	0	0	0	0	0	0	0	0	0	0	4,444
	928-AFUDC Debt Reg	945	0	0	0	0	0	0	0	0	0	0	0	0	945
	929-AFUDC - Equity Regular	1,387	0	0	0	0	0	0	0	0	0	0	0	0	1,387
	937-San Juan AR - Other	-88,679	0	0	0	0	0	0	0	0	0	0	0	0	-88,679
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	103,515	0	0	0	0	0	0	0	0	0	0	0	0	103,515
	825-Clearings	-103,515	0	0	0	0	0	0	0	0	0	0	0	0	-103,515
	Clr Sum	-103,515	0	0	0	0	0	0	0	0	0	0	0	0	-103,515
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76128014	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	11,894	0	0	0	0	0	0	0	0	0	0	0	0	11,894	
120-Overtime-General	6,471	0	0	0	0	0	0	0	0	0	0	0	0	6,471	
350-Material Issues-Major	163,588	0	0	0	0	0	0	0	0	0	0	0	0	163,588	
370-Outside Services	5,500	0	0	0	0	0	0	0	0	0	0	0	0	5,500	
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	68	0	0	0	0	0	0	0	0	0	0	0	0	68	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	460	0	0	0	0	0	0	0	0	0	0	0	0	460	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	1,238	0	0	0	0	0	0	0	0	0	0	0	0	1,238	
914-Pension and Benefits Load	3,606	0	0	0	0	0	0	0	0	0	0	0	0	3,606	
915-Injuries and Damages Load	881	0	0	0	0	0	0	0	0	0	0	0	0	881	
918-San Juan AR-Labor	-12,045	0	0	0	0	0	0	0	0	0	0	0	0	-12,045	
921-Stores / Purchasing Load	1,096	0	0	0	0	0	0	0	0	0	0	0	0	1,096	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	2,662	0	0	0	0	0	0	0	0	0	0	0	0	2,662	
926-A and G Loads	4,444	0	0	0	0	0	0	0	0	0	0	0	0	4,444	
928-AFUDC Debt Reg	945	0	0	0	0	0	0	0	0	0	0	0	0	945	
929-AFUDC - Equity Regular	1,387	0	0	0	0	0	0	0	0	0	0	0	0	1,387	
937-San Juan AR - Other	-88,679	0	0	0	0	0	0	0	0	0	0	0	0	-88,679	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	103,515	0	0	0	0	0	0	0	0	0	0	0	0	103,515	
825-Clearings	-103,515	0	0	0	0	0	0	0	0	0	0	0	0	-103,515	
Clr Sum	-103,515	0	0	0	0	0	0	0	0	0	0	0	0	-103,515	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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***Project No: 76128023 Unit 1 DCS Self-Documenting Software - 2015***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 12/2/2015

List Interim In-Service Dates

0

Project Need Justification

Unit 1 DCS Self-Documenting Software (ICC to FCS Control System Upgrade) project aims to replace the ICC (Integrated Control Configurator) with the new FCS (Fusion Control Software). The MS-DOS style configurator of ICC is dated, time consuming, and makes real time changes with little to no large scale logic diagrams or information outside of the individual logic blocks. The FCS software allows for making safe changes to the control logic, with the ability to self-document (as in it shows the logic layout throughout of the control logic network graphically), and provides a much more efficient GUI (graphical user interface) to make changes or review the logic easier. In addition to these upgrades, the FCS software also stores the information on a galaxy server, allowing for easier access, offline logic modification, greater reliability, and increased scalability.

The San Juan Generating Station (SJGS) Distributed Control System (DCS) vendor allows for an option to have the software self-document all changes and required prints and other items are in place prior to or as part of the change. This documentation is essential to the reliable engineering of future changes and reduces lead time required to implement future changes. This is an essential component of the DCS vendor in order to continue with a supported ease of use platform and not fall out of support with the future.

This software is designed to significantly reduce and simplify engineering efforts. This powerful toolset provides cutting-edge graphical advantages in a constant environment that greatly enhances overall experience and provided opportunity to optimize and maximize profitability by enabling superior collaboration, execution, and visibility across the SJGS DCS.

Project Alternatives

It has been determined that the best option for reliable and efficient plant operation is to purchase and install self-documenting software. As the DCS is a proprietary system, the only option for installing this functionality is to use the Original Equipment Manufacturer's (OEM's) product.

The other options considered include:

- Change DCS vendor and replace all associated software/logic/hardware with the DCS system to an accepted platform configured by the DCS vendor. This option was not selected because it would require increased training for new software and hardware, new servers, new control processors (CPs) and

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

associated Field Bus Modules (FBM) equipment, logic changes and manual conversion to the new system(s)

- Increased engineering time lead for projects to ensure they are engineered to specification within the plant and required changes are documented appropriately after the change. This option was not selected because it would require an engineering design, factory acceptance testing, verification of factory acceptance testing, post deployment and functional verification, upgrade to the self-documenting software at a later date, increased engineering lead time in converting existing logic to Self-Documenting logic format, additional factory acceptance test required offsite for verification of logic changes,

#### Technical Aspects

Install Distributed Control System (DCS) software upgrade that will allow the DCS to provide self-documented information in the form of Scientific Apparatus Makers Association (SAMA) drawings. This software is designed to significantly reduce and simplify engineering efforts. This powerful toolset provides cutting-edge graphical advantages in a constant environment that greatly enhances overall experience and provided opportunity to optimization and maximum profitability by enabling superior collaboration, execution and visibility across the control network.

#### Work Scope

Review/Design/Purchase

Install Distributed Control System (DCS) software upgrade that will allow the DCS to provide self-documented information in the form of power industry standard SAMA drawings.

Logic conversion to the new format required for self-documenting software provided by the SJGS DCS vendor.

Verify documentation within a Factory Acceptance Test.

Deploy new platform additions to existing SJGS DCS; ideally additions would already be prepared within existing DCS upgrades and outage timeframes.

Training as needed.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76128023	Year	2015											
Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total			
110-Straight Time-General	18,553	0	0	0	0	0	0	0	0	0	18,553			
120-Overtime-General	4,512	0	0	0	0	0	0	0	0	0	4,512			
350-Material Issues-Major	258,720	0	0	0	0	0	0	0	0	0	258,720			
370-Outside Services	0	43,050	0	100,000	0	0	0	0	0	0	143,050			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	4,731	0	0	0	0	0	0	0	0	0	4,731			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	763	0	116	0	0	0	0	0	0	879			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0			
913-Payroll Taxes Load	1,555	0	0	0	0	0	0	0	0	0	1,555			
914-Pension and Benefits Load	5,620	0	0	0	0	0	0	0	0	0	5,620			
915-Injuries and Damages Load	1,094	0	0	0	0	0	0	0	0	0	1,094			
918-San Juan AR-Labor	-15,667	0	0	0	0	0	0	0	0	0	-15,667			
921-Stores / Purchasing Load	1,732	0	0	0	0	0	0	0	0	0	1,732			
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0			
925-E and S Loads	4,402	0	0	0	0	0	0	0	0	0	4,402			
926-A and G Loads	6,790	1,020	0	2,370	0	0	0	0	0	0	10,181			
928-AFUDC Debt Reg	1,598	0	0	0	0	0	0	0	0	0	1,598			
929-AFUDC - Equity Regular	2,340	0	0	0	0	0	0	0	0	0	2,340			
937-San Juan AR - Other	-138,188	-22,035	0	-51,185	0	0	0	0	0	0	-211,408			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	157,792	22,799	0	51,301	0	0	0	0	0	0	231,891			
825-Clearings	0	-180,591	0	-51,301	0	0	0	0	0	0	-231,891			
Clr Sum	0	-180,591	0	-51,301	0	0	0	0	0	0	-231,891			
Proj Net	157,792	-157,792	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76128023	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	18,553	0	0	0	0	0	0	0	0	0	0	0	0	18,553
	120-Overtime-General	4,512	0	0	0	0	0	0	0	0	0	0	0	0	4,512
	350-Material Issues-Major	258,720	0	0	0	0	0	0	0	0	0	0	0	0	258,720
	370-Outside Services	143,050	0	0	0	0	0	0	0	0	0	0	0	0	143,050
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	4,731	0	0	0	0	0	0	0	0	0	0	0	0	4,731
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	879	0	0	0	0	0	0	0	0	0	0	0	0	879
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,555	0	0	0	0	0	0	0	0	0	0	0	0	1,555
	914-Pension and Benefits Load	5,620	0	0	0	0	0	0	0	0	0	0	0	0	5,620
	915-Injuries and Damages Load	1,094	0	0	0	0	0	0	0	0	0	0	0	0	1,094
	918-San Juan AR-Labor	-15,667	0	0	0	0	0	0	0	0	0	0	0	0	-15,667
	921-Stores / Purchasing Load	1,732	0	0	0	0	0	0	0	0	0	0	0	0	1,732
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,402	0	0	0	0	0	0	0	0	0	0	0	0	4,402
	926-A and G Loads	10,181	0	0	0	0	0	0	0	0	0	0	0	0	10,181
	928-AFUDC Debt Reg	1,598	0	0	0	0	0	0	0	0	0	0	0	0	1,598
	929-AFUDC - Equity Regular	2,340	0	0	0	0	0	0	0	0	0	0	0	0	2,340
	937-San Juan AR - Other	-211,408	0	0	0	0	0	0	0	0	0	0	0	0	-211,408
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	231,891	0	0	0	0	0	0	0	0	0	0	0	0	231,891
	825-Clearings	-231,891	0	0	0	0	0	0	0	0	0	0	0	0	-231,891
	Clr Sum	-231,891	0	0	0	0	0	0	0	0	0	0	0	0	-231,891
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76128023	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	18,553	0	0	0	0	0	0	0	0	0	0	0	0	18,553
	120-Overtime-General	4,512	0	0	0	0	0	0	0	0	0	0	0	0	4,512
	350-Material Issues-Major	258,720	0	0	0	0	0	0	0	0	0	0	0	0	258,720
	370-Outside Services	143,050	0	0	0	0	0	0	0	0	0	0	0	0	143,050
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	4,731	0	0	0	0	0	0	0	0	0	0	0	0	4,731
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	879	0	0	0	0	0	0	0	0	0	0	0	0	879
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,555	0	0	0	0	0	0	0	0	0	0	0	0	1,555
	914-Pension and Benefits Load	5,620	0	0	0	0	0	0	0	0	0	0	0	0	5,620
	915-Injuries and Damages Load	1,094	0	0	0	0	0	0	0	0	0	0	0	0	1,094
	918-San Juan AR-Labor	-15,667	0	0	0	0	0	0	0	0	0	0	0	0	-15,667
	921-Stores / Purchasing Load	1,732	0	0	0	0	0	0	0	0	0	0	0	0	1,732
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,402	0	0	0	0	0	0	0	0	0	0	0	0	4,402
	926-A and G Loads	10,181	0	0	0	0	0	0	0	0	0	0	0	0	10,181
	928-AFUDC Debt Reg	1,598	0	0	0	0	0	0	0	0	0	0	0	0	1,598
	929-AFUDC - Equity Regular	2,340	0	0	0	0	0	0	0	0	0	0	0	0	2,340
	937-San Juan AR - Other	-211,408	0	0	0	0	0	0	0	0	0	0	0	0	-211,408
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	231,891	0	0	0	0	0	0	0	0	0	0	0	0	231,891
	825-Clearings	-231,891	0	0	0	0	0	0	0	0	0	0	0	0	-231,891
	Clr Sum	-231,891	0	0	0	0	0	0	0	0	0	0	0	0	-231,891
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76316015    Attemperator Spray Valve Replacement***

Company:        003  
Location:        763 San Juan

Project Information

Construction Start Date        12/1/2015                      Estimated Completion Date        12/31/2015

List Interim In-Service Dates

Project Need Justification

With varying load requirements in many power plants, varying steam temperatures are inevitable. In drum style units such as San Juan 3, this is caused by such things as burner orientation and fuel to air ratios. In order to ensure the optimum operating heat rate and to protect the steam turbine, the steam temperature in the superheat and reheat sections of the boiler must be controlled.

The superheater section of a boiler typically includes what are commonly referred to as primary and secondary superheaters. These constitute two separate banks of boiler tubes used to heat the steam to the desired temperature. Once the steam passes through the superheater sections, it then proceeds to pass through the high pressure turbine.

Optimum efficiency and protection of the turbine elements are directly related to the temperature of the steam and must be properly controlled.

Temperature control is usually achieved by admitting a fine spray of water into the steam line through what is called an attemperator or desuperheater, which is typically located between the primary and secondary superheaters. The attemperator utilizes water from a separate control valve and incorporates a nozzle that creates a mist that mixes with the process steam, thus lowering the steam temperature. This process, however, reduces thermal efficiency as it takes heat away from the process steam.

The superheater outlet temperature via a feedback control loop controls the attemperator spray water flow. While requiring additional piping, this design ensures that the average steam temperature will not exceed the final steam temperature desired. In order for proper control the valve must be able to react quickly to variations in downstream temperature and provide the rangeability to handle multiple operating loads.

With the spray water being pulled from the main boiler feedwater line high inlet pressures (2500 – 4000 psig) will be seen at the control valve. The main steam operating pressures for San Juan 3 is 2400 psig. This means that a minimal pressure drop (100 – 300 psid) occurs across the valve eliminating the need for cavitation protection. However, the proper valve must possess the rangeability to control low spray water flows at normal operating loads while providing higher spray water flows during low load demands.

This project is related to the safe and efficient operation of the boiler.    Fine control of steam temperatures are accomplished by using attemperator spray valves.    The isolation valves on Unit 3 are in poor condition and require replacement.    This is required maintenance that meets the criteria for capitalization.    Since Unit 3 is retiring at the end of 2017, it was decided that replacing on the insulation and not the control valves would provide the appropriate level of asset protection.    Isolation valves that leak cause desuperheater spray water to accumulate in secondary superheat loops.    If this water is not properly boiled out on unit startup, tube failure will occur and unit reliability will be reduced.

Project Alternatives

The scope of work is in-kind replacement of four 2500lb class isolation valves. As this is required maintenance, there are no technical alternatives.

Technical Aspects

Replace four (4) each pneumatic actuated 2500lb class plug style isolation valves with in-kind replacements. Remove and replace thermal insulation as necessary to remove the old valves, weld prep the piping and weld in the new valves.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76316015	Year	2015										
	Cost_Type	Bal 3/31/15	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	
	120-Overtime-General	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	
	370-Outside Services	0	0	950	950	950	43,500	4,500	19,000	132,000	201,850		
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	
	807-Non Refundable Contribution	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	
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	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	
	914-Pension and Benefits Load	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	
	918-San Juan AR-Labor	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	
	922-Minor Material Load	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	
	926-A and G Loads	0	0	23	23	23	1,031	107	450	3,128	4,784		
	928-AFUDC Debt Reg	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	
	937-San Juan AR - Other	0	0	-486	-486	-486	-22,265	-2,303	-9,725	-67,564	-103,317		
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	
	Cost Sum	0	0	486	486	486	22,265	2,303	9,725	67,564	103,317		
	825-Clearings	0	0	0	0	0	0	0	0	-103,317	-103,317		
	Clr Sum	0	0	0	0	0	0	0	0	-103,317	-103,317		
	Proj Net	0	0	486	486	486	22,265	2,303	9,725	-35,753	0		

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76316015	Year	2016												
	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	201,850	0	0	0	0	0	0	0	0	0	0	0	0	201,850
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	4,784	0	0	0	0	0	0	0	0	0	0	0	0	4,784
	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	-103,317	0	0	0	0	0	0	0	0	0	0	0	0	-103,317
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	103,317	0	0	0	0	0	0	0	0	0	0	0	0	103,317
	825-Clearings	-103,317	0	0	0	0	0	0	0	0	0	0	0	0	-103,317
	Clr Sum	-103,317	0	0	0	0	0	0	0	0	0	0	0	0	-103,317
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76316015	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	201,850	0	0	0	0	0	0	0	0	0	0	0	0	201,850
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	4,784	0	0	0	0	0	0	0	0	0	0	0	0	4,784
	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	-103,317	0	0	0	0	0	0	0	0	0	0	0	0	-103,317
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	103,317	0	0	0	0	0	0	0	0	0	0	0	0	103,317
	825-Clearings	-103,317	0	0	0	0	0	0	0	0	0	0	0	0	-103,317
	Clr Sum	-103,317	0	0	0	0	0	0	0	0	0	0	0	0	-103,317
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76328014 Unit 3 Foxboro I/A Version 8.8 NERC***

Company: 003  
Location: 763 San Juan

Project Information

Construction Start Date 6/1/2014 Estimated Completion Date 3/31/2015

List Interim In-Service Dates

Unit 3 related projects will be in service on December 31, 2015.

Project Need Justification

The scope of this project is to replace the existing Foxboro I/A version 8.7 operating system for the Unit 3 Distributed Control System (DCS) with a supported Operating System (Foxboro I/A Version 8.8); Foxboro Version 8.7 system support is ending. This upgrade includes hardware for server class machines and new Operator Human Machine Interfaces. The new control network software allows for adaptation of servers, switches and fiber. The virtual machines allows for a more robust setup for Operators and the DCS System. Without support, reliability issues, security, and other control system problems cannot be resolved.

Version 8.8 of I/A requires a supported infrastructure, including but not limited to Operating Systems, software, and virtual infrastructure. Prior versions will no longer be patched and are vulnerable to problems that will not be resolved by the vendor.

Additional benefits include faster throughput, with communication speeds of 1 Gb per second possible. There are point-to-point data routing allowing multiple communications to run simultaneously, greater reliability with alternate communications paths between all stations, and the "self-healing" design is utilized. The control network provides fast response to faults with redundancy at every level. There is increased distances supported which allows for better plant topology match. The upgraded software allows for standard fiber optic and switch technology (no proprietary cell busses, packaging or networks) to be utilized.

Workstations are moved to reliable, server-class as well as multi-purpose workstations based on the latest technology. The multipurpose workstations provide a versatile and robust platform for human to machine interface, data acquisition, historian, engineering and configuration functions and applications. All workstations support annunciator keyboards and up to four monitors.

The project will provide versatile workstations in general-purpose rack mounted configuration. Operator workstations will utilize thin-client technology and new wide aspect monitors, with redundant fiber Ethernet connections to the plant control network to support high availability communications.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

In summary, the project will provide better control through improved communications throughout the system, higher speed, and longer distances allowed for better match with plant topology. All the fiber networks eliminate electrical noise and grounding.

The project cost includes engineering, materials, internal labor, technical support, project management, and general and administrative loads.

#### Project Alternatives

There are no viable alternatives to this project. The Distributed Control System (DCS) is a proprietary product. The Original Equipment Manufacturer (OEM) is discontinuing support for the version of software installed on the Unit 3 DCS. The software upgrade requires upgraded hardware (servers) to support the new software. Replacing the existing DCS with a system from another manufacturer is an option, however, the cost and time required to replace the DCS are prohibitive as it will require the selection, purchase and implementation of an unfamiliar system.

#### Technical Aspects

The scope of work includes upgrading the operating software to the latest release, replacing existing servers with "thin client" servers, replacing control room monitors and keyboards to devices that are compatible with the new servers.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76328014	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,952		0	0	0	0	0	0	0	0	0	6,952
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	177,748		0	0	0	0	0	0	0	0	0	177,748
	370-Outside Services	0		0	0	0	0	0	0	0	4,400	25,800	30,200
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	469		0	0	0	0	0	0	0	0	0	469
	914-Pension and Benefits Load	1,983		0	0	0	0	0	0	0	0	0	1,983
	915-Injuries and Damages Load	169		0	0	0	0	0	0	0	0	0	169
	918-San Juan AR-Labor	-4,786		0	0	0	0	0	0	0	0	0	-4,786
	921-Stores / Purchasing Load	1,191		0	0	0	0	0	0	0	0	0	1,191
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,547		0	0	0	0	0	0	0	0	0	2,547
	926-A and G Loads	4,377		0	0	0	0	0	0	0	104	611	5,093
	928-AFUDC Debt Reg	2,575		0	0	0	0	0	0	0	0	0	2,575
	929-AFUDC - Equity Regular	3,673		0	0	0	0	0	0	0	0	0	3,673
	937-San Juan AR - Other	-92,932		0	0	0	0	0	0	0	-2,252	-13,206	-108,390
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	103,965		0	0	0	0	0	0	0	2,252	13,206	119,423
	825-Clearings	0		0	0	0	0	0	0	0	0	-119,423	-119,423
	Clr Sum	0		0	0	0	0	0	0	0	0	-119,423	-119,423
	Proj Net	103,965		0	0	0	0	0	0	0	2,252	-106,217	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76328014	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,952	0	0	0	0	0	0	0	0	0	0	0	0	6,952
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	177,748	0	0	0	0	0	0	0	0	0	0	0	0	177,748
	370-Outside Services	30,200	0	0	0	0	0	0	0	0	0	0	0	0	30,200
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	469	0	0	0	0	0	0	0	0	0	0	0	0	469
	914-Pension and Benefits Load	1,983	0	0	0	0	0	0	0	0	0	0	0	0	1,983
	915-Injuries and Damages Load	169	0	0	0	0	0	0	0	0	0	0	0	0	169
	918-San Juan AR-Labor	-4,786	0	0	0	0	0	0	0	0	0	0	0	0	-4,786
	921-Stores / Purchasing Load	1,191	0	0	0	0	0	0	0	0	0	0	0	0	1,191
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,547	0	0	0	0	0	0	0	0	0	0	0	0	2,547
	926-A and G Loads	5,093	0	0	0	0	0	0	0	0	0	0	0	0	5,093
	928-AFUDC Debt Reg	2,575	0	0	0	0	0	0	0	0	0	0	0	0	2,575
	929-AFUDC - Equity Regular	3,673	0	0	0	0	0	0	0	0	0	0	0	0	3,673
	937-San Juan AR - Other	-108,390	0	0	0	0	0	0	0	0	0	0	0	0	-108,390
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	119,423	0	0	0	0	0	0	0	0	0	0	0	0	119,423
	825-Clearings	-119,423	0	0	0	0	0	0	0	0	0	0	0	0	-119,423
	Clr Sum	-119,423	0	0	0	0	0	0	0	0	0	0	0	0	-119,423
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76328014	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,952	0	0	0	0	0	0	0	0	0	0	0	0	6,952
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	177,748	0	0	0	0	0	0	0	0	0	0	0	0	177,748
	370-Outside Services	30,200	0	0	0	0	0	0	0	0	0	0	0	0	30,200
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	469	0	0	0	0	0	0	0	0	0	0	0	0	469
	914-Pension and Benefits Load	1,983	0	0	0	0	0	0	0	0	0	0	0	0	1,983
	915-Injuries and Damages Load	169	0	0	0	0	0	0	0	0	0	0	0	0	169
	918-San Juan AR-Labor	-4,786	0	0	0	0	0	0	0	0	0	0	0	0	-4,786
	921-Stores / Purchasing Load	1,191	0	0	0	0	0	0	0	0	0	0	0	0	1,191
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,547	0	0	0	0	0	0	0	0	0	0	0	0	2,547
	926-A and G Loads	5,093	0	0	0	0	0	0	0	0	0	0	0	0	5,093
	928-AFUDC Debt Reg	2,575	0	0	0	0	0	0	0	0	0	0	0	0	2,575
	929-AFUDC - Equity Regular	3,673	0	0	0	0	0	0	0	0	0	0	0	0	3,673
	937-San Juan AR - Other	-108,390	0	0	0	0	0	0	0	0	0	0	0	0	-108,390
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	119,423	0	0	0	0	0	0	0	0	0	0	0	0	119,423
	825-Clearings	-119,423	0	0	0	0	0	0	0	0	0	0	0	0	-119,423
	Clr Sum	-119,423	0	0	0	0	0	0	0	0	0	0	0	0	-119,423
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76328015 U3 DCS Self Documenting Software***

Company: 003

Location: 763 San Juan

**Project Information**

Construction Start Date 6/1/2014

Estimated Completion Date 3/31/2015

List Interim In-Service Dates

Unit 3 related projects will be in service on December 31, 2015.

Project Need Justification

Unit 3 DCS Self-Documenting Software (ICC to FCS Control System Upgrade) project aims to replace the ICC (Integrated Control Configurator) with the new FCS (Fusion Control Software). The MS-DOS style configurator of ICC is dated, time consuming, and makes real time changes with little to no large scale logic diagrams or information outside of the individual logic blocks. The FCS software allows for making safe changes to the control logic, with the ability to self-document (as in it shows the logic layout throughout of the control logic network graphically), and provides a much more efficient GUI (graphical user interface) to make changes or review the logic easier. In addition to these upgrades, the FCS software also stores the information on a galaxy server, allowing for easier access, offline logic modification, greater reliability, and increased scalability.

The San Juan Generating Station (SJGS) Distributed Control System (DCS) vendor allows for an option to have the software self-document all changes and required prints and other items are in place prior to or as part of the change. This documentation is essential to the reliable engineering of future changes and reduces lead time required to implement future changes. This is an essential component of the DCS vendor in order to continue with a supported ease of use platform and not fall out of support with the future.

This software is designed to significantly reduce and simplify engineering efforts. This powerful toolset provides cutting-edge graphical advantages in a constant environment that greatly enhances overall experience and provided opportunity to optimize and maximize profitability by enabling superior collaboration, execution, and visibility across the SJGS DCS.

Project Alternatives

It has been determined that the best option for reliable and efficient plant operation is to purchase and install self-documenting software. As the DCS is a proprietary system, the only option for installing this functionality is to use the Original Equipment Manufacturer's (OEM's) product.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

The other options considered include:

- Change DCS vendor and replace all associated software/logic/hardware with the DCS system to an accepted platform configured by the DCS vendor. This option was not selected because it would require increased training for new software and hardware, new servers, new control processors (CPs) and associated Field Bus Modules (FBM) equipment, logic changes and manual conversion to the new system(s)
- Increased engineering time lead for projects to ensure they are engineered to specification within the plant and required changes are documented appropriately after the change. This option was not selected because it would require an engineering design, factory acceptance testing, verification of factory acceptance testing, post deployment and functional verification, upgrade to the self-documenting software at a later date, increased engineering lead time in converting existing logic to Self-Documenting logic format, additional factory acceptance test required offsite for verification of logic changes, additional required outage required to perform upgrade.

#### Technical Aspects

Install Distributed Control System (DCS) software upgrade that will allow the DCS to provide self-documented information in the form of Scientific Apparatus Makers Association (SAMA) drawings. This software is designed to significantly reduce and simplify engineering efforts. This powerful toolset provides cutting-edge graphical advantages in a constant environment that greatly enhances overall experience and provided opportunity to optimization and maximum profitability by enabling superior collaboration, execution and visibility across the control network.

#### Work Scope

Review/Design/Purchase

Install Distributed Control System (DCS) software upgrade that will allow the DCS to provide self-documented information in the form of power industry standard SAMA drawings.

Logic conversion to the new format required for self-documenting software provided by the SJGS DCS vendor.

Verify documentation within a Factory Acceptance Test.

Deploy new platform additions to existing SJGS DCS; ideally additions would already be prepared within existing DCS upgrades and outage timeframes.

Training as needed.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76328015	Year	2015										
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
	110-Straight Time-General	38,821	0	0	0	0	0	0	0	0	0	38,821	
	120-Overtime-General	3,092	0	0	0	0	0	0	0	0	0	3,092	
	350-Material Issues-Major	356,769	0	0	0	0	0	0	0	0	0	356,769	
	370-Outside Services	1,110	0	0	0	0	0	0	0	0	5,600	6,710	
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	31,756	0	0	0	0	0	0	0	0	0	31,756	
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	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	
	426-Capitalized Interest	0	1,121	1,126	1,131	1,136	1,141	1,146	1,152	1,157	1,168	10,278	
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	
	913-Payroll Taxes Load	2,807	0	0	0	0	0	0	0	0	0	2,807	
	914-Pension and Benefits Load	11,380	0	0	0	0	0	0	0	0	0	11,380	
	915-Injuries and Damages Load	1,042	0	0	0	0	0	0	0	0	0	1,042	
	918-San Juan AR-Labor	-28,571	0	0	0	0	0	0	0	0	0	-28,571	
	921-Stores / Purchasing Load	2,496	0	0	0	0	0	0	0	0	0	2,496	
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	
	925-E and S Loads	4,142	0	0	0	0	0	0	0	0	0	4,142	
	926-A and G Loads	10,228	0	0	0	0	0	0	0	0	133	10,360	
	928-AFUDC Debt Reg	6,632	0	0	0	0	0	0	0	0	0	6,632	
	929-AFUDC - Equity Regular	9,377	0	0	0	0	0	0	0	0	0	9,377	
	937-San Juan AR - Other	-203,250	0	0	0	0	0	0	0	0	-2,866	-206,117	
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	
	Cost Sum	247,830	1,121	1,126	1,131	1,136	1,141	1,146	1,152	1,157	4,035	260,974	
	825-Clearings	0	0	0	0	0	0	0	0	0	-260,974	-260,974	
	Clr Sum	0	0	0	0	0	0	0	0	0	-260,974	-260,974	
Proj Net		247,830	1,121	1,126	1,131	1,136	1,141	1,146	1,152	1,157	-256,939	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76328015	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	38,821	0	0	0	0	0	0	0	0	0	0	0	0	38,821
	120-Overtime-General	3,092	0	0	0	0	0	0	0	0	0	0	0	0	3,092
	350-Material Issues-Major	356,769	0	0	0	0	0	0	0	0	0	0	0	0	356,769
	370-Outside Services	6,710	0	0	0	0	0	0	0	0	0	0	0	0	6,710
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	31,756	0	0	0	0	0	0	0	0	0	0	0	0	31,756
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	10,278	0	0	0	0	0	0	0	0	0	0	0	0	10,278
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	2,807	0	0	0	0	0	0	0	0	0	0	0	0	2,807
	914-Pension and Benefits Load	11,380	0	0	0	0	0	0	0	0	0	0	0	0	11,380
	915-Injuries and Damages Load	1,042	0	0	0	0	0	0	0	0	0	0	0	0	1,042
	918-San Juan AR-Labor	-28,571	0	0	0	0	0	0	0	0	0	0	0	0	-28,571
	921-Stores / Purchasing Load	2,496	0	0	0	0	0	0	0	0	0	0	0	0	2,496
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,142	0	0	0	0	0	0	0	0	0	0	0	0	4,142
	926-A and G Loads	10,360	0	0	0	0	0	0	0	0	0	0	0	0	10,360
	928-AFUDC Debt Reg	6,632	0	0	0	0	0	0	0	0	0	0	0	0	6,632
	929-AFUDC - Equity Regular	9,377	0	0	0	0	0	0	0	0	0	0	0	0	9,377
	937-San Juan AR - Other	-206,117	0	0	0	0	0	0	0	0	0	0	0	0	-206,117
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	260,974	0	0	0	0	0	0	0	0	0	0	0	0	260,974
	825-Clearings	-260,974	0	0	0	0	0	0	0	0	0	0	0	0	-260,974
	Clr Sum	-260,974	0	0	0	0	0	0	0	0	0	0	0	0	-260,974
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76328015	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	38,821	0	0	0	0	0	0	0	0	0	0	0	0	38,821
	120-Overtime-General	3,092	0	0	0	0	0	0	0	0	0	0	0	0	3,092
	350-Material Issues-Major	356,769	0	0	0	0	0	0	0	0	0	0	0	0	356,769
	370-Outside Services	6,710	0	0	0	0	0	0	0	0	0	0	0	0	6,710
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	31,756	0	0	0	0	0	0	0	0	0	0	0	0	31,756
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	10,278	0	0	0	0	0	0	0	0	0	0	0	0	10,278
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	2,807	0	0	0	0	0	0	0	0	0	0	0	0	2,807
	914-Pension and Benefits Load	11,380	0	0	0	0	0	0	0	0	0	0	0	0	11,380
	915-Injuries and Damages Load	1,042	0	0	0	0	0	0	0	0	0	0	0	0	1,042
	918-San Juan AR-Labor	-28,571	0	0	0	0	0	0	0	0	0	0	0	0	-28,571
	921-Stores / Purchasing Load	2,496	0	0	0	0	0	0	0	0	0	0	0	0	2,496
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,142	0	0	0	0	0	0	0	0	0	0	0	0	4,142
	926-A and G Loads	10,360	0	0	0	0	0	0	0	0	0	0	0	0	10,360
	928-AFUDC Debt Reg	6,632	0	0	0	0	0	0	0	0	0	0	0	0	6,632
	929-AFUDC - Equity Regular	9,377	0	0	0	0	0	0	0	0	0	0	0	0	9,377
	937-San Juan AR - Other	-206,117	0	0	0	0	0	0	0	0	0	0	0	0	-206,117
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	260,974	0	0	0	0	0	0	0	0	0	0	0	0	260,974
	825-Clearings	-260,974	0	0	0	0	0	0	0	0	0	0	0	0	-260,974
	Clr Sum	-260,974	0	0	0	0	0	0	0	0	0	0	0	0	-260,974
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76416019 Unit 4 BT Supervisory Instrumentation Panel***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 6/1/2015 Estimated Completion Date 12/30/2015

List Interim In-Service Dates

0

Project Need Justification

The thrust axial position indication for the Boiler Feed Pump Turbine (BFPT) is currently monitored through the Woodward Atlas PC which is an abnormal design. This has caused reliability issues and several trips to Unit 4. The correct way to monitor this indication is through the Bentley Nevada boiler feed pump turbine supervisory panel. This indication is used for early detection of deterioration in the rotating components. It enables protective trips to shut down the equipment prior to experiencing a significant failure. General Electric (GE) is contracted to remove the thrust axial position from the Woodward Atlas PC and move it to the Boiler Feed Pump Turbine (BFPT) supervisory panel and to modify the logic to include this indication. There are additional logic changes that will be required on both the Atlas PC and the supervisory panel that GE will assist with, as well as communication and control between existing Bentley Nevada instrumentation and the Atlas PC control system.

The cost of the project includes engineering, field technical direction, cables, conduits, contract labor for installation, project management, and general and administrative loads.

Project Alternatives

The current configuration is an off design condition which has resulted in multiple boiler feed pump failures. This condition must be corrected as the "do nothing" alternative is not viable as it does not address the issue. The selected alternative will return the equipment to an industry standard design. It is a relatively simple solution requiring limited physical modifications. Most of the work is in the proper configuration of the signal processors and associated control logic.

Technical Aspects

The scope of work includes the following work items:

1. Reroute signal cabling from the Woodward Atlas PC to the Bentley Nevada supervisory panel.
2. Revise the signal processing programs in the Bentley Nevada system to incorporate the axial thrust position indication.
3. Engineer the interface between the Bentley Nevada supervisory panel and the GE control logic in the Distributed Control System (DCS).
4. Implement software logic changes in the DCS as necessary.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416019	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	0	0	0	90,061	125	130	135	49,516	48,634	0	188,601			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	0	0	0	2,134	3	3	3	1,174	1,153	0	4,470			
928-AFUDC Debt Reg	0	0	0	77	154	155	156	199	284	0	1,025			
929-AFUDC - Equity Regular	0	0	0	109	220	221	223	285	406	0	1,463			
937-San Juan AR - Other	0	0	0	-32,746	-45	-47	-49	-18,004	-17,683	0	-68,575			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	59,635	456	462	468	33,170	32,793	0	126,984			
825-Clearings	0	0	0	0	0	0	0	0	-126,984	0	-126,984			
Clr Sum	0	0	0	0	0	0	0	0	-126,984	0	-126,984			
Proj Net	0	0	0	59,635	456	462	468	33,170	-94,191	0	0			

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76416019	Year	2016												
	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	188,601	0	0	0	0	0	0	0	0	0	0	0	0	188,601
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	4,470	0	0	0	0	0	0	0	0	0	0	0	0	4,470
	928-AFUDC Debt Reg	1,025	0	0	0	0	0	0	0	0	0	0	0	0	1,025
	929-AFUDC - Equity Regular	1,463	0	0	0	0	0	0	0	0	0	0	0	0	1,463
	937-San Juan AR - Other	-68,575	0	0	0	0	0	0	0	0	0	0	0	0	-68,575
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	126,984	0	0	0	0	0	0	0	0	0	0	0	0	126,984
	825-Clearings	-126,984	0	0	0	0	0	0	0	0	0	0	0	0	-126,984
	Clr Sum	-126,984	0	0	0	0	0	0	0	0	0	0	0	0	-126,984
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416019	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	188,601	0	0	0	0	0	0	0	0	0	0	0	0	188,601
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	4,470	0	0	0	0	0	0	0	0	0	0	0	0	4,470
	928-AFUDC Debt Reg	1,025	0	0	0	0	0	0	0	0	0	0	0	0	1,025
	929-AFUDC - Equity Regular	1,463	0	0	0	0	0	0	0	0	0	0	0	0	1,463
	937-San Juan AR - Other	-68,575	0	0	0	0	0	0	0	0	0	0	0	0	-68,575
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	126,984	0	0	0	0	0	0	0	0	0	0	0	0	126,984
	825-Clearings	-126,984	0	0	0	0	0	0	0	0	0	0	0	0	-126,984
	Clr Sum	-126,984	0	0	0	0	0	0	0	0	0	0	0	0	-126,984
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76416025 Unit 4 Baghouse Airlock Isolation***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 7/1/2015 Estimated Completion Date 12/30/2015

List Interim In-Service Dates

0

Project Need Justification

In the current configuration, maintenance on the baghouse ash removal system can be performed only during unit outages or under partial equipment outages. In both cases, unit reliability is reduced by the maintenance needs of the ash removal equipment. Installing airlock isolation valves will allow ash removal system maintenance to occur during unit operations. On-line maintenance will produce a lower overall maintenance cost and a higher unit reliability.

A similar installation was made on San Juan Unit 1 in the spring of 2015 as part of the installation of a redundant ash removal train at the fabric filter.

The scope of work includes engineering, materials, contract labor for installation, project management, and general and administrative loads.

Project Alternatives

There are three alternatives to conduct baghouse ash removal system maintenance: 1) the "do nothing" alternative, 2) isolation of the baghouse compartment requiring maintenance and 3) install airlock isolation valves. The do nothing, alternative one, forfeits the cost savings and increased reliability benefits and is therefore not viable. The isolated compartment maintenance approach, alternative two, does enable the maintenance to be performed while the unit is operating by isolating the compartment of the fabric filter (baghouse) where the maintenance is needed. However, this results in a 10% loss of capacity in fabric filter efficiency and typically results in a unit derate so that the remaining compartments are no overloaded. Overloading compartments can lead to bag failures. Bag failures permit fine particulate matter to escape to the atmosphere which can be an environmental violation if the concentration becomes too great. Therefore, this is not a viable option. Alternative three is the best alternative as it avoids unit shut down and will reduce overall maintenance costs.

Technical Aspects

Install isolation devices (8" shutoff valves) between each ash hopper and the airlock device (the "Nuva feeder") at each of ten (10) locations on the Unit 4 fabric filter (baghouse) ash hoppers. A unit outage is required to execute this project.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

The shutoff valve gates and seats are constructed of wear resistant Ni-hard. The airlock slide gate is equipped with a coil spring to seat the gate against the seat. The gate is designed to cut through a flowing column of dust while the airlock is filling, to shear through the ash and provide a positive cut-off of the dust flow. This type of gate is more durable and effective than a flap type or track-guide style gate. When pressure is introduced into the airlock chamber, the gate is forced into the seat providing a positive seating of the gate tight against the seat ring.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416025	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	0		0	0	0	0	0	48,750	121,500	121,500	0	291,750
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		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
426-Capitalized Interest		0		0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor		0		0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other		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
914-Pension and Benefits Load		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
918-San Juan AR-Labor		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
922-Minor Material Load		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
926-A and G Loads		0		0	0	0	0	0	1,155	2,880	2,880	0	6,914
928-AFUDC Debt Reg		0		0	0	0	0	0	41	187	394	0	622
929-AFUDC - Equity Regular		0		0	0	0	0	0	59	266	563	0	889
937-San Juan AR - Other		0		0	0	0	0	0	-17,725	-44,177	-44,177	0	-106,080
961-Luna A&G PNMR D&V		0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	32,281	80,655	81,160	0	194,096
	825-Clearings	0		0	0	0	0	0	0	0	-194,096	0	-194,096
	Clr Sum	0		0	0	0	0	0	0	0	-194,096	0	-194,096
Proj Net		0		0	0	0	0	0	32,281	80,655	-112,936	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76416025	Year	2016												
	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	291,750	0	0	0	0	0	0	0	0	0	0	0	0	291,750
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	6,914	0	0	0	0	0	0	0	0	0	0	0	0	6,914
	928-AFUDC Debt Reg	622	0	0	0	0	0	0	0	0	0	0	0	0	622
	929-AFUDC - Equity Regular	889	0	0	0	0	0	0	0	0	0	0	0	0	889
	937-San Juan AR - Other	-106,080	0	0	0	0	0	0	0	0	0	0	0	0	-106,080
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	194,096	0	0	0	0	0	0	0	0	0	0	0	0	194,096
	825-Clearings	-194,096	0	0	0	0	0	0	0	0	0	0	0	0	-194,096
	Clr Sum	-194,096	0	0	0	0	0	0	0	0	0	0	0	0	-194,096
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416025	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	291,750	0	0	0	0	0	0	0	0	0	0	0	0	291,750
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	6,914	0	0	0	0	0	0	0	0	0	0	0	0	6,914
	928-AFUDC Debt Reg	622	0	0	0	0	0	0	0	0	0	0	0	0	622
	929-AFUDC - Equity Regular	889	0	0	0	0	0	0	0	0	0	0	0	0	889
	937-San Juan AR - Other	-106,080	0	0	0	0	0	0	0	0	0	0	0	0	-106,080
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	194,096	0	0	0	0	0	0	0	0	0	0	0	0	194,096
	825-Clearings	-194,096	0	0	0	0	0	0	0	0	0	0	0	0	-194,096
	Clr Sum	-194,096	0	0	0	0	0	0	0	0	0	0	0	0	-194,096
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76416039 Unit 4 Bottom Ash Drag Chain***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 12/30/2015

List Interim In-Service Dates

0

Project Need Justification

Maintenance cost reports and Generator Availability Data System (GADS) information confirm the existing bottom ash removal system is a leading driver of maintenance expense and lost availability. A business case analyzing the financial performance of replacing the existing bottom ash removal system with a Submerged Flight Conveyor (SFC) or “drag chain” has been performed using conservative assumptions. The analysis shows a high rate of return and a payback of 4.5 years.

The Submerged Flight Conveyor (SFC) is a proven bottom ash handling system and the most cost-effective compared with other alternatives. Designed for use with most boiler types, this type of bottom ash handling system has become the most common bottom ash handling system since the mid-1990s. This system is often used to replace legacy sluice systems and is well suited to new installations where water and headroom are limited.

Operation of the Submerged Flight Conveyor (SFC) is very simple. Ash falls from the boiler into a water-filled, upper trough that quenches and cools the ash. Chains and flights move the ash along the horizontal trough and up a dewatering ramp. At the top of the ramp, the ash falls through a discharge chute into a concrete bunker, where it can be loaded into trucks for final disposal. The flights continue through the lower (dry) chamber to the rear of the conveyor and then return to the upper trough.

This cost of this project is for engineering only.

Project Alternatives

There are three alternatives to address this issue: 1) continue to maintain the current system, 2) install a new MAC® Magaldi Ash Cooler system, or 3) install the Submerged Flight Conveyor system. The first alternative is not viable per maintenance expenses and the lost availability of the unit.

The Magaldi Ash Cooler (MAC) system, second alternative, represents another developing technology. The MAC® Magaldi Ash Cooler is a unique system for dry extraction, air cooling and mechanical handling of bottom ash from pulverized coal-fired boilers. The MAC system was evaluated. It cost is roughly 2.5 times the cost of the SFC installation. The MAC is better suited for plants which struggle to meet zero liquid discharge requirements. While technically viable, it is not financially viable given the higher investment cost.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

The submerged flight chain (SFC) conveyor, alternative three, is the newest technology for bottom ash removal and is the best alternative based on the investment cost and its ability to reduce maintenance costs and lost availability.

#### Technical Aspects

Install a submerged flight chain (SFC) conveyor in the bottom ash removal system and retire the existing bottom ash hopper, clinker grinders, jet pulsion pumps, high pressure ash water system and ash dewatering system equipment.

This project was suspended for 2015 as sufficient lead time to fabricate the SFC in time for installation during the planned outage was not available. The engineering will be used when the project is reactivated at a future date.

The cost estimate was developed by a third party engineering firm which has been involved in the execution of several bottom ash drag chain projects.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416039	Year	2015									
	Cost_Type	Bal 3/31/15	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
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	100,000	0	0	0	0	0	0	0	0	0	100,000
	370-Outside Services	132,000	0	0	0	0	0	0	0	0	0	132,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	1,554	0	0	0	0	0	0	0	0	0	1,554
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,640	0	0	0	0	0	0	0	0	0	4,640
	926-A and G Loads	5,498	0	0	0	0	0	0	0	0	0	5,498
	928-AFUDC Debt Reg	1,439	413	0	0	0	0	0	0	0	0	1,853
	929-AFUDC - Equity Regular	2,088	590	0	0	0	0	0	0	0	0	2,678
	937-San Juan AR - Other	-86,785	0	0	0	0	0	0	0	0	0	-86,785
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	160,435	1,004	0	0	0	0	0	0	0	0	161,438
	825-Clearings	0	-161,438	0	0	0	0	0	0	0	0	-161,438
	Clr Sum	0	-161,438	0	0	0	0	0	0	0	0	-161,438
	Proj Net	160,435	-160,435	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76416039	Year	2016												
	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	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	370-Outside Services	132,000	0	0	0	0	0	0	0	0	0	0	0	0	132,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	1,554	0	0	0	0	0	0	0	0	0	0	0	0	1,554
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,640	0	0	0	0	0	0	0	0	0	0	0	0	4,640
	926-A and G Loads	5,498	0	0	0	0	0	0	0	0	0	0	0	0	5,498
	928-AFUDC Debt Reg	1,853	0	0	0	0	0	0	0	0	0	0	0	0	1,853
	929-AFUDC - Equity Regular	2,678	0	0	0	0	0	0	0	0	0	0	0	0	2,678
	937-San Juan AR - Other	-86,785	0	0	0	0	0	0	0	0	0	0	0	0	-86,785
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	161,438	0	0	0	0	0	0	0	0	0	0	0	0	161,438
	825-Clearings	-161,438	0	0	0	0	0	0	0	0	0	0	0	0	-161,438
	Clr Sum	-161,438	0	0	0	0	0	0	0	0	0	0	0	0	-161,438
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416039	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	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	370-Outside Services	132,000	0	0	0	0	0	0	0	0	0	0	0	0	132,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	1,554	0	0	0	0	0	0	0	0	0	0	0	0	1,554
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,640	0	0	0	0	0	0	0	0	0	0	0	0	4,640
	926-A and G Loads	5,498	0	0	0	0	0	0	0	0	0	0	0	0	5,498
	928-AFUDC Debt Reg	1,853	0	0	0	0	0	0	0	0	0	0	0	0	1,853
	929-AFUDC - Equity Regular	2,678	0	0	0	0	0	0	0	0	0	0	0	0	2,678
	937-San Juan AR - Other	-86,785	0	0	0	0	0	0	0	0	0	0	0	0	-86,785
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	161,438	0	0	0	0	0	0	0	0	0	0	0	0	161,438
	825-Clearings	-161,438	0	0	0	0	0	0	0	0	0	0	0	0	-161,438
	Clr Sum	-161,438	0	0	0	0	0	0	0	0	0	0	0	0	-161,438
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Project No: 76416334 Unit 4 Expansion Joint Replacement - 2015**

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 6/1/2015 Estimated Completion Date 12/30/2015

List Interim In-Service Dates

0

Project Need Justification

The boiler and its exhaust gas ductwork system is second only to the turbine-generator in ranking of critical assets in a coal fired generating unit. Major maintenance activities on this asset meet the criteria for capitalization. These major maintenance activities occur during planned unit outages with durations between 20 and 50 days. San Juan Unit 4 has a planned outage of 50 days in 2015. The scope of work is driven by performance issues that have resulted in unscheduled and forced outages. These investments will address reliability issues.

Project 76416334 is budgeted for the cost of contract labor, materials, project management, general and administrative loads and AFUDC to replace expansion joints in the Unit 4 boiler exhaust ductwork. Expansion joints are necessary to accommodate the differential expansion that occurs from the various metallurgies that exist in the boiler exhaust path.

Project Alternatives

As these are major maintenance activities designed to return the asset from worn conditions back to original design specifications, there are no technical alternatives.

This project is specifically an in-kind replacement, in accordance with normal industry practice. By selecting operational alternatives to the replacements, PNM will be accepting a lower unit reliability from expansion joint failures, but this not viable alternatives. Under positive pressure operation, expansion joint failure requires an immediate unit shutdown. Under balanced draft configuration, expansion joint failures can be tolerated for brief periods, as no fugitive exhausts are escaping, but still require a unit outage to repair.

Technical Aspects

The scope of work is the in-kind replacement of deteriorated and/or failed expansion joints. Most are fabric joints so the scope of work entails removal of the joint material and backing bars. If necessary the joint frames are cleaned and repaired and the new material and backing bars are then installed.

Cost Year 01

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 76416334	Year	2016													
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	985,650	0	0	0	0	0	0	0	0	0	0	0	0	985,650	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	23,360	0	0	0	0	0	0	0	0	0	0	0	0	23,360	
928-AFUDC Debt Reg	2,644	113	113	113	114	114	114	114	114	115	115	115	115	4,013	
929-AFUDC - Equity Regular	3,776	0	0	0	0	0	0	0	0	0	0	0	0	3,776	
937-San Juan AR - Other	-358,380	0	0	0	0	0	0	0	0	0	0	0	0	-358,380	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	657,050	113	113	113	114	114	114	114	114	115	115	115	115	658,419	
825-Clearings	-592,489	0	0	0	0	0	0	0	0	0	0	0	0	-592,489	
Clr Sum	-592,489	0	0	0	0	0	0	0	0	0	0	0	0	-592,489	
Proj Net	64,561	113	113	113	114	114	114	114	114	115	115	115	115	65,930	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416334	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	985,650	0	0	0	0	0	0	0	0	0	0	0	0	985,650
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	23,360	0	0	0	0	0	0	0	0	0	0	0	0	23,360
	928-AFUDC Debt Reg	4,013	209	210	0	0	0	0	0	0	0	0	0	0	4,432
	929-AFUDC - Equity Regular	3,776	124	124	0	0	0	0	0	0	0	0	0	0	4,024
	937-San Juan AR - Other	-358,380	0	0	0	0	0	0	0	0	0	0	0	0	-358,380
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	658,419	333	334	0	0	0	0	0	0	0	0	0	0	659,086
	825-Clearings	-592,489	0	0	0	0	0	0	0	0	0	0	0	0	-592,489
	Clr Sum	-592,489	0	0	0	0	0	0	0	0	0	0	0	0	-592,489
	Proj Net	65,930	333	334	0	0	0	0	0	0	0	0	0	0	66,597

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***Project No: 76416424 Unit 4 Arc Flash Mitigation-2014***

Company: 003  
Location: 764 San Juan

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 3/31/2015

List Interim In-Service Dates

Specific sets of relays will be placed in service at various times in 2014, 2015 and 2016

Project Need Justification

Arc flashes occur when a short circuit condition is created and has the potential to cause severe burns or even death. This project addresses new safety standards for exposure to potential arc flash energy. OSHA regulations regarding exposure to potential arc flash energy have become more stringent since the San Juan Plant was designed and constructed. Solid state relays can be used to control arc flash incident energy.

This project will implement a method to provide protection while minimizing the impact of miscoordination of protective relays through the installation of "maintenance" switches. These are external switches that are wired into a circuit breaker or relay to allow an operator to select between "normal" and "maintenance" settings. In "normal" mode, the breaker or relay is typically set for normal selective coordination, which may result in a high incident energy level downstream. As long as no workers are present, this may be acceptable. When work is being performed, the switch is turned to the "maintenance" setting, which modifies the trip settings of the device (making them lower and/or faster), which is intended to reduce the incident energy levels downstream. This may also result in a sacrifice of selective coordination, but the idea is that the "maintenance" setting is to be used only when workers are actually present, when protection of personnel takes priority. When work is complete, the system is then returned to "normal" mode.

The project funds cover the cost of engineering, materials, contract labor for installation, project management and general and administrative loads.

Project Alternatives

The existing electromechanical relays could continue to be maintained but the task will become increasingly difficult as parts become less available. The alternative for compliance with arc flash exposure standards is personal protective equipment for employees assigned to task where arc flash exposure exists. This alternative has been rejected as it does not provide the degree of employee protection produced through the selected alternative.

Technical Aspects

Install relays and maintenance switches which will reduce the available arc flash incident energy. This project is part of a multiyear program to replace

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

electromechanical relays with solid state relays. The relays are located in all areas of the plant - each unit, common areas and the switchyard.

The scope of work for this project addresses the following Unit 4 circuit breakers:

1. Breaker 23712 - Cubicle #2
2. Breaker 23812 - Cubicle #4
3. Breaker 24812 - Cubicle #202
4. Breaker 24912 - Cubicle #101
5. Breaker 24612 - Cubicle #2
6. Breaker 23712 - Cubicle #1
7. Breaker 23812 - Cubicle #3
8. Breaker 24812 - Cubicle #201
9. Breaker 24912 - Cubicle #203
10. Breaker 24612 - Cubicle #1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416424	Year	2015											
Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total			
110-Straight Time-General	5,459	0	0	0	0	0	0	0	0	0	5,459			
120-Overtime-General	8,950	0	0	0	0	0	0	0	0	0	8,950			
350-Material Issues-Major	135,546	0	0	0	0	0	0	0	0	0	135,546			
370-Outside Services	180,137	0	0	0	0	47,000	46,500	46,500	55,000	0	375,137			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	306	0	0	0	0	0	0	0	0	0	306			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0			
913-Payroll Taxes Load	971	0	0	0	0	0	0	0	0	0	971			
914-Pension and Benefits Load	1,557	0	0	0	0	0	0	0	0	0	1,557			
915-Injuries and Damages Load	388	0	0	0	0	0	0	0	0	0	388			
918-San Juan AR-Labor	-6,594	0	0	0	0	0	0	0	0	0	-6,594			
921-Stores / Purchasing Load	2,390	0	0	0	0	0	0	0	0	0	2,390			
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0			
925-E and S Loads	5,859	0	0	0	0	0	0	0	0	0	5,859			
926-A and G Loads	7,830	0	0	0	0	1,114	1,102	1,102	1,304	0	12,452			
928-AFUDC Debt Reg	2,086	0	0	0	0	0	0	0	0	0	2,086			
929-AFUDC - Equity Regular	3,034	0	0	0	0	0	0	0	0	0	3,034			
937-San Juan AR - Other	-129,853	0	0	0	0	-17,089	-16,907	-16,907	-19,998	0	-200,755			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	218,067	0	0	0	0	31,025	30,695	30,695	36,306	0	346,787			
825-Clearings	0	0	0	0	0	0	0	0	-346,787	0	-346,787			
Clr Sum	0	0	0	0	0	0	0	0	-346,787	0	-346,787			
Proj Net	218,067	0	0	0	0	31,025	30,695	30,695	-310,481	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76416424	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,459	0	0	0	0	0	0	0	0	0	0	0	0	5,459
	120-Overtime-General	8,950	0	0	0	0	0	0	0	0	0	0	0	0	8,950
	350-Material Issues-Major	135,546	0	0	0	0	0	0	0	0	0	0	0	0	135,546
	370-Outside Services	375,137	0	0	0	0	0	0	0	0	0	0	0	0	375,137
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	306	0	0	0	0	0	0	0	0	0	0	0	0	306
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	971	0	0	0	0	0	0	0	0	0	0	0	0	971
	914-Pension and Benefits Load	1,557	0	0	0	0	0	0	0	0	0	0	0	0	1,557
	915-Injuries and Damages Load	388	0	0	0	0	0	0	0	0	0	0	0	0	388
	918-San Juan AR-Labor	-6,594	0	0	0	0	0	0	0	0	0	0	0	0	-6,594
	921-Stores / Purchasing Load	2,390	0	0	0	0	0	0	0	0	0	0	0	0	2,390
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	5,859	0	0	0	0	0	0	0	0	0	0	0	0	5,859
	926-A and G Loads	12,452	0	0	0	0	0	0	0	0	0	0	0	0	12,452
	928-AFUDC Debt Reg	2,086	0	0	0	0	0	0	0	0	0	0	0	0	2,086
	929-AFUDC - Equity Regular	3,034	0	0	0	0	0	0	0	0	0	0	0	0	3,034
	937-San Juan AR - Other	-200,755	0	0	0	0	0	0	0	0	0	0	0	0	-200,755
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	346,787	0	0	0	0	0	0	0	0	0	0	0	0	346,787
	825-Clearings	-346,787	0	0	0	0	0	0	0	0	0	0	0	0	-346,787
	Clr Sum	-346,787	0	0	0	0	0	0	0	0	0	0	0	0	-346,787
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416424	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	5,459	0	0	0	0	0	0	0	0	0	0	0	0	5,459	
120-Overtime-General	8,950	0	0	0	0	0	0	0	0	0	0	0	0	8,950	
350-Material Issues-Major	135,546	0	0	0	0	0	0	0	0	0	0	0	0	135,546	
370-Outside Services	375,137	0	0	0	0	0	0	0	0	0	0	0	0	375,137	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	306	0	0	0	0	0	0	0	0	0	0	0	0	306	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	971	0	0	0	0	0	0	0	0	0	0	0	0	971	
914-Pension and Benefits Load	1,557	0	0	0	0	0	0	0	0	0	0	0	0	1,557	
915-Injuries and Damages Load	388	0	0	0	0	0	0	0	0	0	0	0	0	388	
918-San Juan AR-Labor	-6,594	0	0	0	0	0	0	0	0	0	0	0	0	-6,594	
921-Stores / Purchasing Load	2,390	0	0	0	0	0	0	0	0	0	0	0	0	2,390	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	5,859	0	0	0	0	0	0	0	0	0	0	0	0	5,859	
926-A and G Loads	12,452	0	0	0	0	0	0	0	0	0	0	0	0	12,452	
928-AFUDC Debt Reg	2,086	0	0	0	0	0	0	0	0	0	0	0	0	2,086	
929-AFUDC - Equity Regular	3,034	0	0	0	0	0	0	0	0	0	0	0	0	3,034	
937-San Juan AR - Other	-200,755	0	0	0	0	0	0	0	0	0	0	0	0	-200,755	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	346,787	0	0	0	0	0	0	0	0	0	0	0	0	346,787	
825-Clearings	-346,787	0	0	0	0	0	0	0	0	0	0	0	0	-346,787	
Clr Sum	-346,787	0	0	0	0	0	0	0	0	0	0	0	0	-346,787	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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***Project No: 76416532 CIRC WATER MOTOR GYPSUM FIX***

Company: 003

Location: 764 San Juan

**Project Information**

Construction Start Date 8/1/2012 Estimated Completion Date 3/31/2015

List Interim In-Service Dates

These project will be in service on or before December 31, 2014

Project Need Justification

The Unit 4 Cooling Tower Circulating Water Pumps are located adjacent to the discharge of the Gypsum Belt. On windy days, gypsum can be blown in the direction of the pump motors where it is pulled into the cooling ducts of the pump motors. The gypsum has built up on stator cooling slots and has reduced the cooling capacity of the motor cooling system. This project provides for installation of a metal enclosure around the motors and a pressurization/ventilation system that will prevent gypsum dust from plugging the motor cooling slots.

The project funds provide for the engineering, materials, contract labor for construction, project management, and general and administrative loads.

Project Alternatives

The alternative is to continue to maintain the existing equipment and replace motors as they fail. This option will create a higher maintenance cost and reduce unit reliability. The circulating water pumps are a 2X50% configuration (each pump accommodates 50% of the work load) so the loss of one pump will cause the unit to be reduced to half load capability. The chosen approach will be completed at a reasonable cost with a straight forward solution.

Technical Aspects

This project will install shrouds around the motor cooling air intakes to prevent dust contamination from the nearby gypsum pile. Included in the project is the design and construction a cooling air conveyance system complete with fans and pressure switches to alarm loss of air pressure.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416532	Year	2015									
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	13,167	0	0	0	0	0	0	0	0	0	13,167
	120-Overtime-General	3,852	0	0	0	0	0	0	0	0	0	3,852
	350-Material Issues-Major	10,467	0	0	0	0	0	0	0	0	0	10,467
	370-Outside Services	276,490	10	10	10	10	10	10	10	10	10	276,580
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	17	0	0	0	0	0	0	0	0	0	17
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	1,125	0	0	0	0	0	0	0	0	0	1,125
	914-Pension and Benefits Load	4,146	0	0	0	0	0	0	0	0	0	4,146
	915-Injuries and Damages Load	443	0	0	0	0	0	0	0	0	0	443
	918-San Juan AR-Labor	-13,878	0	0	0	0	0	0	0	0	0	-13,878
	921-Stores / Purchasing Load	2,144	0	0	0	0	0	0	0	0	0	2,144
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	69	0	0	0	0	0	0	0	0	0	69
	926-A and G Loads	7,257	0	0	0	0	0	0	0	0	0	7,259
	928-AFUDC Debt Reg	8,956	372	374	376	379	381	383	386	388	391	12,386
	929-AFUDC - Equity Regular	12,279	531	534	537	541	544	547	551	554	558	17,176
	937-San Juan AR - Other	-182,340	-4	-4	-4	-4	-4	-4	-4	-4	-4	-182,373
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	144,196	909	914	920	926	932	938	943	949	955	152,582
	825-Clearings	0	0	0	0	0	0	0	0	0	-152,582	-152,582
	Clr Sum	0	0	0	0	0	0	0	0	0	-152,582	-152,582
	Proj Net	144,196	909	914	920	926	932	938	943	949	-151,627	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76416532	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	13,167	0	0	0	0	0	0	0	0	0	0	0	0	13,167
	120-Overtime-General	3,852	0	0	0	0	0	0	0	0	0	0	0	0	3,852
	350-Material Issues-Major	10,467	0	0	0	0	0	0	0	0	0	0	0	0	10,467
	370-Outside Services	276,580	0	0	0	0	0	0	0	0	0	0	0	0	276,580
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	17	0	0	0	0	0	0	0	0	0	0	0	0	17
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	1,125	0	0	0	0	0	0	0	0	0	0	0	0	1,125
	914-Pension and Benefits Load	4,146	0	0	0	0	0	0	0	0	0	0	0	0	4,146
	915-Injuries and Damages Load	443	0	0	0	0	0	0	0	0	0	0	0	0	443
	918-San Juan AR-Labor	-13,878	0	0	0	0	0	0	0	0	0	0	0	0	-13,878
	921-Stores / Purchasing Load	2,144	0	0	0	0	0	0	0	0	0	0	0	0	2,144
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	69	0	0	0	0	0	0	0	0	0	0	0	0	69
	926-A and G Loads	7,259	0	0	0	0	0	0	0	0	0	0	0	0	7,259
	928-AFUDC Debt Reg	12,386	0	0	0	0	0	0	0	0	0	0	0	0	12,386
	929-AFUDC - Equity Regular	17,176	0	0	0	0	0	0	0	0	0	0	0	0	17,176
	937-San Juan AR - Other	-182,373	0	0	0	0	0	0	0	0	0	0	0	0	-182,373
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	152,582	0	0	0	0	0	0	0	0	0	0	0	0	152,582
	825-Clearings	-152,582	0	0	0	0	0	0	0	0	0	0	0	0	-152,582
	Clr Sum	-152,582	0	0	0	0	0	0	0	0	0	0	0	0	-152,582
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416532	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	13,167	0	0	0	0	0	0	0	0	0	0	0	0	13,167
	120-Overtime-General	3,852	0	0	0	0	0	0	0	0	0	0	0	0	3,852
	350-Material Issues-Major	10,467	0	0	0	0	0	0	0	0	0	0	0	0	10,467
	370-Outside Services	276,580	0	0	0	0	0	0	0	0	0	0	0	0	276,580
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	17	0	0	0	0	0	0	0	0	0	0	0	0	17
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	1,125	0	0	0	0	0	0	0	0	0	0	0	0	1,125
	914-Pension and Benefits Load	4,146	0	0	0	0	0	0	0	0	0	0	0	0	4,146
	915-Injuries and Damages Load	443	0	0	0	0	0	0	0	0	0	0	0	0	443
	918-San Juan AR-Labor	-13,878	0	0	0	0	0	0	0	0	0	0	0	0	-13,878
	921-Stores / Purchasing Load	2,144	0	0	0	0	0	0	0	0	0	0	0	0	2,144
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	69	0	0	0	0	0	0	0	0	0	0	0	0	69
	926-A and G Loads	7,259	0	0	0	0	0	0	0	0	0	0	0	0	7,259
	928-AFUDC Debt Reg	12,386	0	0	0	0	0	0	0	0	0	0	0	0	12,386
	929-AFUDC - Equity Regular	17,176	0	0	0	0	0	0	0	0	0	0	0	0	17,176
	937-San Juan AR - Other	-182,373	0	0	0	0	0	0	0	0	0	0	0	0	-182,373
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	152,582	0	0	0	0	0	0	0	0	0	0	0	0	152,582
	825-Clearings	-152,582	0	0	0	0	0	0	0	0	0	0	0	0	-152,582
	Clr Sum	-152,582	0	0	0	0	0	0	0	0	0	0	0	0	-152,582
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76416634 Unit 4 Coal Piping Replacement - 2015***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 10/3/2015 Estimated Completion Date 12/30/2015

List Interim In-Service Dates

Unit 4 related projects will be in service on November 30, 2015.

Project Need Justification

The equipment which prepares and delivers coal to the boilers consists of many high wear components that require routine replacement. Major maintenance activities on this equipment meet the criteria for capitalization. Routine maintenance is necessary to sustain reliable operation of the generating unit. The steel piping that is the conveyance path of pulverized coal from the pulverizers to the burners erodes from the abrasion created as the 150 mesh particles travel through the piping. Lack of maintenance will result in holes in the piping and the discharge of coal inside the boiler plant. This is both a fire hazard and a fugitive dust compliance issue. The maintenance is in-kind replacement of worn pipe sections. The costs for this project are for contract labor, materials, project management, and general and administrative loads.

Project Alternatives

This is a major maintenance activity designed to return the systems from worn conditions back to original design specifications, there are no technical alternatives. This activity primarily involves removing and replacing equipment with like equipment. An operational alternative would be to reduce unit output, however, this is not a viable alternative as the generation from the unit is required to meet customer demand.

Technical Aspects

In kind replacement of thinned piping that conducts pulverized coal from the pulverizers to the burners. On this unit there are forty two (42) piping runs, each with varying degrees of wear, which are being addressed. This is normal periodic maintenance for this system.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416634	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	0		0	0	5,500	1,700	0	57,500	196,000	65,000	0	325,700
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		0	0	130	40	0	1,363	4,645	1,541	0	7,719
	928-AFUDC Debt Reg	0		0	0	5	11	12	61	277	501	0	868
	929-AFUDC - Equity Regular	0		0	0	7	15	18	88	396	715	0	1,239
	937-San Juan AR - Other	0		0	0	-2,000	-618	0	-20,907	-71,265	-23,634	0	-118,424
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	3,642	1,148	30	38,105	130,053	44,123	0	217,101
	825-Clearings	0		0	0	0	0	0	0	0	-217,101	0	-217,101
	Clr Sum	0		0	0	0	0	0	0	0	-217,101	0	-217,101
	Proj Net	0		0	0	3,642	1,148	30	38,105	130,053	-172,978	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76416634	Year	2016												
	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	325,700	0	0	0	0	0	0	0	0	0	0	0	0	325,700
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	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	7,719	0	0	0	0	0	0	0	0	0	0	0	0	7,719
	928-AFUDC Debt Reg	868	0	0	0	0	0	0	0	0	0	0	0	0	868
	929-AFUDC - Equity Regular	1,239	0	0	0	0	0	0	0	0	0	0	0	0	1,239
	937-San Juan AR - Other	-118,424	0	0	0	0	0	0	0	0	0	0	0	0	-118,424
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	217,101	0	0	0	0	0	0	0	0	0	0	0	0	217,101
	825-Clearings	-217,101	0	0	0	0	0	0	0	0	0	0	0	0	-217,101
	Clr Sum	-217,101	0	0	0	0	0	0	0	0	0	0	0	0	-217,101
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416634	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	325,700	0	0	0	0	0	0	0	0	0	0	0	0	325,700
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	7,719	0	0	0	0	0	0	0	0	0	0	0	0	7,719
	928-AFUDC Debt Reg	868	0	0	0	0	0	0	0	0	0	0	0	0	868
	929-AFUDC - Equity Regular	1,239	0	0	0	0	0	0	0	0	0	0	0	0	1,239
	937-San Juan AR - Other	-118,424	0	0	0	0	0	0	0	0	0	0	0	0	-118,424
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	217,101	0	0	0	0	0	0	0	0	0	0	0	0	217,101
	825-Clearings	-217,101	0	0	0	0	0	0	0	0	0	0	0	0	-217,101
	Clr Sum	-217,101	0	0	0	0	0	0	0	0	0	0	0	0	-217,101
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76416815 Unit 4 CEM Replacement***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 2/1/2016 Estimated Completion Date 8/30/2016

List Interim In-Service Dates

0

Project Need Justification

Continuous emissions monitoring systems are the equipment used to measure stack emissions and report information to various environmental regulators as required by the Title V Air Permit. Replacement of the Unit 4 emissions monitoring system is necessary to avoid obsolescence issues.

Continuous emission monitoring systems (CEMS) are currently used as a means to comply with air emission standards such as the United States Environmental Protection Agency's Acid Rain Program, other federal emission programs, or state permitted emission standards. Facilities employ the use of CEMS to continuously collect, record and report the required emissions data.

The standard CEM system consists of a sample probe, filter, sample line (umbilical), gas conditioning system, calibration gas system, and a series of gas analyzers which reflect the parameters being monitored. Typical monitored emissions include: sulfur dioxide, nitrogen oxides, carbon monoxide, carbon dioxide, hydrogen chloride, airborne particulate matter, mercury, volatile organic compounds, and oxygen. CEM systems can also measure air flow, flue gas opacity and moisture.

In the U.S., the EPA requires a data acquisition and handling system to collect and report the data including emissions for SO<sub>2</sub>, NO<sub>x</sub>, and Opacity. In monitoring these emissions, the system must be in continuous operation and must be able to sample, analyze, and record data at least every 15 minutes and then averaged hourly.

A small sample of flue gas is extracted, by means of a pump, into the CEM system via a sample probe. Facilities that combust fossil fuels often use a dilution-extractive probe to dilute the sample with clean, dry air to a ratio typically between 50:1 to 200:1, but usually 100:1. Dilution is used because pure flue gas can be hot, wet and, with some pollutants, sticky. Once diluted to the appropriate ratio, the sample is transported through a sample line (typically referred to as an umbilical) to a manifold from which individual analyzers may extract a sample. Gas analyzers employ various techniques to accurately measure concentrations. Some commonly used techniques include: infrared and ultraviolet adsorption, chemiluminescence, fluorescence and beta ray absorption. After analysis, the gas exits the analyzer to a common manifold to all analyzers where it is vented out of doors. A Data Acquisition and Handling System (DAHS) receives the signal output from each analyzer in order to collect and record emissions data.

Another sample extraction method used in industrial sources and utility sources with low emission rates, is commonly referred to as the "hot dry"

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

extractive method or "direct" CEMS. The sample is not diluted, but is carried along a heated sample line at high temperature into a sample conditioning unit. The sample is filtered to remove particulate matter and dried, usually with a chiller, to remove moisture. Once conditioned, the sample enters a sampling manifold and is measured using the same methods above. One advantage of this method is the ability to measure % oxygen in the sample, which is often required in the regulatory calculations for emission corrections. Since dilution mixes clean dry air with the sample, dilution systems cannot measure % oxygen.

This project will replace the existing "fully extractive" CEM system with a 'dilution extractive' type system. The dilution extractive system is replacing fully extractive systems in coal fired applications across the industry.

The new equipment will have greater accuracy and higher reliability than the aging equipment.

#### Project Alternatives

There are two alternatives: 1) maintain the existing equipment or 2) install the new dilution extractive system. By choosing to maintain the existing equipment, PNM will forfeit the maintenance savings provided by the new dilution extractive system equipment. Additionally, the preferred dilution extractive system is safer as the gas samples are not hot. Further, a sample line heating system and a sample conditioning system are not required, therefore reducing maintenance cost and increasing reliability. Data from coal fired applications across the industry supports dilution extractive systems having lower maintenance costs and higher reliability than fully extractive systems.

At some point the United States Environmental Protection Agency (EPA) may mandate the use of dilution extraction systems on coal fired applications as they have a greater degree of accuracy.

#### Technical Aspects

This project will replace the monitors and software used to report stack emission data to regulatory agencies. The existing systems will be replaced with the latest version of sensors, gas analyzers and data collection devices. The scope of work includes engineering, demolition of existing sampling probes, sample transport lines, sample conditioners, analyzers and data recorders, the purchase of new sample probes, analyzers and data recorders, contract labor for installation of new equipment, commissioning, validation testing, project management, and general and administrative loads.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416815	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 76416815	Year	2016													
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	50,000	50,000	50,000	150,000	150,000	0	0	0	0	0	450,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	0	0	1,185	1,185	1,185	3,555	3,555	0	0	0	0	0	10,665	
928-AFUDC Debt Reg	0	0	0	29	87	145	260	434	0	0	0	0	0	955	
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	-18,180	-18,180	-18,180	-54,540	-54,540	0	0	0	0	0	-163,620	
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	33,034	33,092	33,150	99,275	99,449	0	0	0	0	0	298,000	
825-Clearings	0	0	0	0	0	0	0	-298,001	0	0	0	0	0	-298,001	
Clr Sum	0	0	0	0	0	0	0	-298,001	0	0	0	0	0	-298,001	
Proj Net	0	0	0	33,034	33,092	33,150	99,275	-198,552	0	0	0	0	0	-1	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416815	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	450,000	0	0	0	0	0	0	0	0	0	0	0	0	450,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	10,665	0	0	0	0	0	0	0	0	0	0	0	0	10,665
	928-AFUDC Debt Reg	955	0	0	0	0	0	0	0	0	0	0	0	0	955
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-163,620	0	0	0	0	0	0	0	0	0	0	0	0	-163,620
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	298,000	0	0	0	0	0	0	0	0	0	0	0	0	298,000
	825-Clearings	-298,001	0	0	0	0	0	0	0	0	0	0	0	0	-298,001
	Clr Sum	-298,001	0	0	0	0	0	0	0	0	0	0	0	0	-298,001
	Proj Net	-1	0	0	0	0	0	0	0	0	0	0	0	0	-1

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***Project No: 76417515 Unit 4 Attemperator Spray Valve Replacement***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 10/3/2015 Estimated Completion Date 12/30/2015

List Interim In-Service Dates

0

Project Need Justification

With varying load requirements in many power plants, varying steam temperatures are inevitable. In drum style units such as San Juan 3, this is caused by such things as burner orientation and fuel to air ratios. In order to ensure the optimum operating heat rate and to protect the steam turbine, the steam temperature in the superheat and reheat sections of the boiler must be controlled.

The superheater section of a boiler typically includes what are commonly referred to as primary and secondary superheaters. These constitute two separate banks of boiler tubes used to heat the steam to the desired temperature. Once the steam passes through the superheater sections, it then proceeds to pass through the high pressure turbine.

Optimum efficiency and protection of the turbine elements are directly related to the temperature of the steam and must be properly controlled.

Temperature control is usually achieved by admitting a fine spray of water into the steam line through what is called an attemperator or desuperheater, which is typically located between the primary and secondary superheaters. The attemperator utilizes water from a separate control valve and incorporates a nozzle that creates a mist that mixes with the process steam, thus lowering the steam temperature. This process, however, reduces thermal efficiency as it takes heat away from the process steam.

The superheater outlet temperature via a feedback control loop controls the attemperator spray water flow. While requiring additional piping, this design ensures that the average steam temperature will not exceed the final steam temperature desired. In order for proper control the valve must be able to react quickly to variations in downstream temperature and provide the rangeability to handle multiple operating loads.

With the spray water being pulled from the main boiler feedwater line high inlet pressures (2500 – 4000 psig) will be seen at the control valve. The main steam operating pressures for San Juan 3 is 2400 psig. This means that a minimal pressure drop (100 – 300 psid) occurs across the valve eliminating the need for cavitation protection. However, the proper valve must possess the rangeability to control low spray water flows at normal operating loads while providing higher spray water flows during low load demands.

This project is related to the safe and efficient operation of the boiler. Fine control of steam temperatures are accomplished by using attemperator spray valves. The both the control valves and the isolation valves on Unit 4 are in poor condition and require replacement. This is required maintenance that meets the criteria for capitalization. Isolation valves that leak cause desuperheater spray water to accumulate in secondary superheat loops. If this water is not properly boiled out on unit startup, tube failure will occur and unit reliability will be reduced. The control valve provide the functionality to regulate attemperation flow to the amount necessary to achieve the desired final superheat steam temperature.

Project Alternatives

The scope of work is in-kind replacement of four 2500lb class isolation valves and four 2500lb class control valves. As this is required maintenance, there are no technical alternatives.

Technical Aspects

This project will replace four (4) pneumatically actuated 2500lb class plug style isolation valves with in-kind replacements and four (4) pneumatically actuated 2500lb control valves with pneumatically actuated 2500lb class stacked disk control valves. Remove and replace thermal insulation as necessary to remove the old valves, weld prep the piping and weld in the new valves. Set up new control valves and check the stroke.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76417515	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	0	0	0	0	200,000	200,000	200,000	184,000	1,500	0	785,500			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	0	0	0	0	4,740	4,740	4,740	4,361	36	0	18,616			
928-AFUDC Debt Reg	0	0	0	0	170	511	855	1,187	1,352	0	4,075			
929-AFUDC - Equity Regular	0	0	0	0	243	730	1,220	1,694	1,930	0	5,818			
937-San Juan AR - Other	0	0	0	0	-72,720	-72,720	-72,720	-66,902	-545	0	-285,606			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	132,433	133,262	134,096	124,340	4,272	0	528,403			
825-Clearings	0	0	0	0	0	0	0	0	-528,403	0	-528,403			
Clr Sum	0	0	0	0	0	0	0	0	-528,403	0	-528,403			
Proj Net	0	0	0	0	132,433	133,262	134,096	124,340	-524,131	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76417515	Year	2016												
	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	785,500	0	0	0	0	0	0	0	0	0	0	0	0	785,500
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	18,616	0	0	0	0	0	0	0	0	0	0	0	0	18,616
	928-AFUDC Debt Reg	4,075	0	0	0	0	0	0	0	0	0	0	0	0	4,075
	929-AFUDC - Equity Regular	5,818	0	0	0	0	0	0	0	0	0	0	0	0	5,818
	937-San Juan AR - Other	-285,606	0	0	0	0	0	0	0	0	0	0	0	0	-285,606
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	528,403	0	0	0	0	0	0	0	0	0	0	0	0	528,403
	825-Clearings	-528,403	0	0	0	0	0	0	0	0	0	0	0	0	-528,403
	Clr Sum	-528,403	0	0	0	0	0	0	0	0	0	0	0	0	-528,403
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76417515	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	785,500	0	0	0	0	0	0	0	0	0	0	0	0	785,500
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	18,616	0	0	0	0	0	0	0	0	0	0	0	0	18,616
	928-AFUDC Debt Reg	4,075	0	0	0	0	0	0	0	0	0	0	0	0	4,075
	929-AFUDC - Equity Regular	5,818	0	0	0	0	0	0	0	0	0	0	0	0	5,818
	937-San Juan AR - Other	-285,606	0	0	0	0	0	0	0	0	0	0	0	0	-285,606
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	528,403	0	0	0	0	0	0	0	0	0	0	0	0	528,403
	825-Clearings	-528,403	0	0	0	0	0	0	0	0	0	0	0	0	-528,403
	Clr Sum	-528,403	0	0	0	0	0	0	0	0	0	0	0	0	-528,403
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Project No: 76417715 Unit 4 Automatic Voltage Regulator Replacement**

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 11/30/2015

List Interim In-Service Dates

Project Need Justification

This project addresses equipment obsolescence issues. Replacement of critical equipment is necessary to sustain unit reliability. The Unit 4 automatic voltage regulator, specifically, has had deteriorating reliability and its poor performance can become a North America Electric Reliability Council (NERC) issue.

Recent misoperations of generation protection during major system disturbances have highlighted the need for 1) better coordination of generator protection with generator capability, 2) generator Automatic Voltage Regulator (AVR) control and 3) transmission system protection. Generator protection misoperations contributed to the 1996 outages in the western U.S. and played a key role in the 2003 U.S. East Coast blackout. Since most recent major power system disturbances are the result of voltage collapse, generator protection must be secured during low voltage system conditions while still providing generator protection. The generator AVR needs to properly control VAR support to rapidly stabilize system voltage during major disturbances to ensure that the unit remains on-line and capable of delivering power to the system.

The generator AVR uses the generator terminal voltage and phase current to calculate generator operating conditions. By comparing the actual point of operation to the desired level, the AVR determines when it is appropriate to adjust the generator field current to maintain the desired generator operating voltage.

In disturbances where short circuits depress the system voltage, electrical power cannot fully be delivered to the transmission system. Fast response of the AVR and excitation system helps to increase the synchronizing torque to allow the generator to remain in synchronism with the system. AVR control limiters are used to prevent the AVR from imposing unacceptable conditions upon the generator.

The AVR is the first line of defense in protecting the generator from conditions that have detrimental and/or catastrophic effects on the equipment. If the AVR fails; the protective relays take over and trip the unit, causing a complete and immediate loss of generation. A functioning and reliable AVR is essential for unit reliability.

Project Alternatives

The alternative is to continue to maintain the existing equipment but this will become increasingly costly and difficult as replacement parts become

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

harder to find. Coupled with the risk of a NERC issue, the increasingly difficult maintenance of the voltage regulator reinforces the chosen alternative to replace the voltage regulator.

#### Technical Aspects

The equipment replacement will be of similar design but with upgraded materials and solid state controls.

This project includes supplying of the following

- One (1) AVR System, Tag Numbers U1 Generator AVR System. The AVR equipment, enclosures, and accessories shall be designed, assembled, and connected in accordance with requirements of the specifications.
- VAR/Power Factor Control: The AVR shall be capable of maintaining constant Power factor or constant VARS.
- REDUNDANCY: A full function backup AVR shall be installed to provide system redundancy.
- AVR DATA LOGGING AND MONITORING: The AVR shall provide oscillography and sequence of events as specified in the attached Data Sheet.
- Current Transformers (CT's): The Seller shall reuse existing CT's for AVR metering, controls and protection. CT's shall be molded case toroidal type and shall be wired to shorting type terminal blocks. CT's shall be in accordance with applicable ANSI standards. Ratings shall be determined by the Seller.
- PROTECTION: The AVR shall contain protection functions for the excitation system including Field Overvoltage, Generator Over/Under Voltage, Field Overcurrent, Loss of Voltage Sensing, Loss of Field, Main Field Ground, Exciter Field Ground, and Volts-per-hertz. Set-points shall be selectable via programmable logic.

## Cost Year 01

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76417715	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	124,946	0	0	0	0	0	0	0	0	0	0	0	0	124,946
	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	720,283	0	0	0	0	0	0	0	0	0	0	0	0	720,283
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	8,421	0	0	0	0	0	0	0	0	0	0	0	0	8,421
	914-Pension and Benefits Load	38,059	0	0	0	0	0	0	0	0	0	0	0	0	38,059
	915-Injuries and Damages Load	6,147	0	0	0	0	0	0	0	0	0	0	0	0	6,147
	918-San Juan AR-Labor	-63,070	0	0	0	0	0	0	0	0	0	0	0	0	-63,070
	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	20,032	0	0	0	0	0	0	0	0	0	0	0	0	20,032
	928-AFUDC Debt Reg	3,327	0	0	0	0	0	0	0	0	0	0	0	0	3,327
	929-AFUDC - Equity Regular	4,750	0	0	0	0	0	0	0	0	0	0	0	0	4,750
	937-San Juan AR - Other	-262,945	0	0	0	0	0	0	0	0	0	0	0	0	-262,945
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	599,950	0	0	0	0	0	0	0	0	0	0	0	0	599,950
	825-Clearings	-501,907	0	0	0	0	0	0	0	0	0	0	0	0	-501,907
	Clr Sum	-501,907	0	0	0	0	0	0	0	0	0	0	0	0	-501,907
Proj Net		98,043	0	0	0	0	0	0	0	0	0	0	0	0	98,043

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76417715	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	124,946	0	0	0	0	0	0	0	0	0	0	0	0	124,946
	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	720,283	0	0	0	0	0	0	0	0	0	0	0	0	720,283
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	8,421	0	0	0	0	0	0	0	0	0	0	0	0	8,421
	914-Pension and Benefits Load	38,059	0	0	0	0	0	0	0	0	0	0	0	0	38,059
	915-Injuries and Damages Load	6,147	0	0	0	0	0	0	0	0	0	0	0	0	6,147
	918-San Juan AR-Labor	-63,070	0	0	0	0	0	0	0	0	0	0	0	0	-63,070
	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	20,032	0	0	0	0	0	0	0	0	0	0	0	0	20,032
	928-AFUDC Debt Reg	3,327	0	0	0	0	0	0	0	0	0	0	0	0	3,327
	929-AFUDC - Equity Regular	4,750	0	0	0	0	0	0	0	0	0	0	0	0	4,750
	937-San Juan AR - Other	-262,945	0	0	0	0	0	0	0	0	0	0	0	0	-262,945
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	599,950	0	0	0	0	0	0	0	0	0	0	0	0	599,950
	825-Clearings	-501,907	0	0	0	0	0	0	0	0	0	0	0	0	-501,907
	Clr Sum	-501,907	0	0	0	0	0	0	0	0	0	0	0	0	-501,907
	Proj Net	98,043	0	0	0	0	0	0	0	0	0	0	0	0	98,043

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***Project No: 76428015 Unit 4 Foxboro I/A Version 8.8 NERC***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 12/30/2015

List Interim In-Service Dates

0

Project Need Justification

The scope of this project is to replace the existing Foxboro I/A version 8.7 operating system for the Unit 4 Distributed Control System (DCS) with a supported Operating System (Foxboro I/A Version 8.8); Foxboro Version 8.7 system support is ending. This upgrade includes hardware for server class machines and new Operator Human Machine Interfaces. The new control network software allows for adaptation of servers, switches and fiber. The virtual machines allows for a more robust setup for Operators and the DCS System. Without support, reliability issues, security, and other control system problems cannot be resolved.

Version 8.8 of I/A requires a supported infrastructure, including but not limited to Operating Systems, software, and virtual infrastructure. Prior versions will no longer be patched and are vulnerable to problems that will not be resolved by the vendor.

Additional benefits include faster throughput, with communication speeds of 1 Gb per second possible. There are point-to-point data routing allowing multiple communications to run simultaneously, greater reliability with alternate communications paths between all stations, and the “self-healing” design is utilized. The control network provides fast response to faults with redundancy at every level. There is increased distances supported which allows for better plant topology match. The upgraded software allows for standard fiber optic and switch technology (no proprietary cell busses, packaging or networks) to be utilized.

Workstations are moved to reliable, server-class as well as multi-purpose workstations based on the latest technology. The multipurpose workstations provide a versatile and robust platform for human to machine interface, data acquisition, historian, engineering and configuration functions and applications. All workstations support annunciator keyboards and up to four monitors.

The project will provide versatile workstations in general-purpose rack mounted configuration. Operator workstations will utilize thin-client technology and new wide aspect monitors, with redundant fiber Ethernet connections to the plant control network to support high availability communications.

In summary, the project will provide better control through improved communications throughout the system, higher speed, and longer distances allowed for better match with plant topology. All the fiber networks eliminate electrical noise and grounding.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

The project cost includes engineering, materials, internal labor, technical support, project management, and general and administrative loads.

#### Project Alternatives

There are no viable alternatives to this project. The Distributed Control System (DCS) is a proprietary product. The Original Equipment Manufacturer (OEM) is discontinuing support for the version of software installed on the Unit 4 DCS. The software upgrade requires upgraded hardware (servers) to support the new software. Replacing the existing DCS with a system from another manufacturer is an option, however, the cost and time required to replace the DCS are prohibitive as it will require the selection, purchase and implementation of an unfamiliar system.

#### Technical Aspects

The scope of work includes upgrading the operating software to the latest release, replacing existing servers with “thin client” servers, replacing control room monitors and keyboards to devices that are compatible with the new servers.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76428015	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	0	0	20,250	20,250	21,500	21,500	56,500	45,500	40,500	9,000	235,000			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	30	91	154	218	336	490	620	697	2,635			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	0	0	480	480	510	510	1,339	1,078	960	213	5,570			
928-AFUDC Debt Reg	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			
937-San Juan AR - Other	0	0	-7,363	-7,363	-7,817	-7,817	-20,543	-16,544	-14,726	-3,272	-85,445			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	13,397	13,458	14,346	14,411	37,632	30,524	27,354	6,638	157,759			
825-Clearings	0	0	0	0	0	0	0	0	0	-157,759	-157,759			
Clr Sum	0	0	0	0	0	0	0	0	0	-157,759	-157,759			
Proj Net	0	0	13,397	13,458	14,346	14,411	37,632	30,524	27,354	-151,122	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76428015	Year	2016												
	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	235,000	0	0	0	0	0	0	0	0	0	0	0	0	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	2,635	0	0	0	0	0	0	0	0	0	0	0	0	2,635
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	5,570	0	0	0	0	0	0	0	0	0	0	0	0	5,570
	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	-85,445	0	0	0	0	0	0	0	0	0	0	0	0	-85,445
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	157,759	0	0	0	0	0	0	0	0	0	0	0	0	157,759
	825-Clearings	-157,759	0	0	0	0	0	0	0	0	0	0	0	0	-157,759
	Clr Sum	-157,759	0	0	0	0	0	0	0	0	0	0	0	0	-157,759
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76428015	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	235,000	0	0	0	0	0	0	0	0	0	0	0	0	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	2,635	0	0	0	0	0	0	0	0	0	0	0	0	2,635
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	5,570	0	0	0	0	0	0	0	0	0	0	0	0	5,570
	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	-85,445	0	0	0	0	0	0	0	0	0	0	0	0	-85,445
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	157,759	0	0	0	0	0	0	0	0	0	0	0	0	157,759
	825-Clearings	-157,759	0	0	0	0	0	0	0	0	0	0	0	0	-157,759
	Clr Sum	-157,759	0	0	0	0	0	0	0	0	0	0	0	0	-157,759
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Juan Generating Station. Some of these projects will include Air Flow measurement, replacement of measurement devices and FD/ID Fan coordination, Boiler/Turbine coordinated control, steam temperature control, condensate, and feed water control.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76428115	Year	2015											
Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total			
110-Straight Time-General	464	0	0	0	0	0	0	0	0	0	464			
120-Overtime-General	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			
370-Outside Services	1,205	0	0	0	38,000	38,250	73,500	68,000	37,000	23,500	279,455			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0			
913-Payroll Taxes Load	31	0	0	0	0	0	0	0	0	0	31			
914-Pension and Benefits Load	141	0	0	0	0	0	0	0	0	0	141			
915-Injuries and Damages Load	23	0	0	0	0	0	0	0	0	0	23			
918-San Juan AR-Labor	-406	0	0	0	0	0	0	0	0	0	-406			
921-Stores / Purchasing Load	8	0	0	0	0	0	0	0	0	0	8			
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0			
925-E and S Loads	20	0	0	0	0	0	0	0	0	0	20			
926-A and G Loads	40	0	0	0	901	907	1,742	1,612	877	557	6,634			
928-AFUDC Debt Reg	1	0	0	0	0	0	0	0	0	0	1			
929-AFUDC - Equity Regular	1	0	0	0	0	0	0	0	0	0	1			
937-San Juan AR - Other	-783	0	0	0	-13,817	-13,908	-26,724	-24,725	-13,453	-8,545	-101,954			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	745	0	0	0	25,084	25,249	48,518	44,887	24,424	15,512	184,419			
825-Clearings	0	0	0	0	0	0	0	0	0	-184,419	-184,419			
Clr Sum	0	0	0	0	0	0	0	0	0	-184,419	-184,419			
Proj Net	745	0	0	0	25,084	25,249	48,518	44,887	24,424	-168,906	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76428115	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	464	0	0	0	0	0	0	0	0	0	0	0	0	464
	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	279,455	0	0	0	0	0	0	0	0	0	0	0	0	279,455
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	31	0	0	0	0	0	0	0	0	0	0	0	0	31
	914-Pension and Benefits Load	141	0	0	0	0	0	0	0	0	0	0	0	0	141
	915-Injuries and Damages Load	23	0	0	0	0	0	0	0	0	0	0	0	0	23
	918-San Juan AR-Labor	-406	0	0	0	0	0	0	0	0	0	0	0	0	-406
	921-Stores / Purchasing Load	8	0	0	0	0	0	0	0	0	0	0	0	0	8
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	20	0	0	0	0	0	0	0	0	0	0	0	0	20
	926-A and G Loads	6,634	0	0	0	0	0	0	0	0	0	0	0	0	6,634
	928-AFUDC Debt Reg	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	929-AFUDC - Equity Regular	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	937-San Juan AR - Other	-101,954	0	0	0	0	0	0	0	0	0	0	0	0	-101,954
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	184,419	0	0	0	0	0	0	0	0	0	0	0	0	184,419
	825-Clearings	-184,419	0	0	0	0	0	0	0	0	0	0	0	0	-184,419
	Clr Sum	-184,419	0	0	0	0	0	0	0	0	0	0	0	0	-184,419
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76428115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	464	0	0	0	0	0	0	0	0	0	0	0	0	464
	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	279,455	0	0	0	0	0	0	0	0	0	0	0	0	279,455
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	31	0	0	0	0	0	0	0	0	0	0	0	0	31
	914-Pension and Benefits Load	141	0	0	0	0	0	0	0	0	0	0	0	0	141
	915-Injuries and Damages Load	23	0	0	0	0	0	0	0	0	0	0	0	0	23
	918-San Juan AR-Labor	-406	0	0	0	0	0	0	0	0	0	0	0	0	-406
	921-Stores / Purchasing Load	8	0	0	0	0	0	0	0	0	0	0	0	0	8
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	20	0	0	0	0	0	0	0	0	0	0	0	0	20
	926-A and G Loads	6,634	0	0	0	0	0	0	0	0	0	0	0	0	6,634
	928-AFUDC Debt Reg	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	929-AFUDC - Equity Regular	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	937-San Juan AR - Other	-101,954	0	0	0	0	0	0	0	0	0	0	0	0	-101,954
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	184,419	0	0	0	0	0	0	0	0	0	0	0	0	184,419
	825-Clearings	-184,419	0	0	0	0	0	0	0	0	0	0	0	0	-184,419
	Clr Sum	-184,419	0	0	0	0	0	0	0	0	0	0	0	0	-184,419
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Project No: 76516036    Units 1&2 Maintenance Building Modification**

Company: 003

Location: 765 San Juan

**Project Information**

Construction Start Date                      3/1/2016

Estimated Completion Date                      9/30/2016

List Interim In-Service Dates

0

Project Need Justification

San Juan Generating Station is retiring 50% of its installed plant on December 31, 2017. While there will be no planned reduction in force, employees separating from PNM through normal attrition are not being replaced. The total headcount of the plant staff is being reduced. Significant reductions in the maintenance staff will occur over the next few years.

The maintenance staff is divided and housed separately in crews specifically assigned to Units 1&2 and Units 3&4. With unit shutdowns and decommissioning, the maintenance crews will be consolidated from two crews to one.

This project is part of a plan to reconfigure maintenance shops to more efficiently accommodate the maintenance crews, their tools and equipment, and personal accommodations (e.g. break room, locker room). The final result will be a reduction in overall occupied space that must be maintained. Consolidation will also enable more efficient communication among employees.

The scope of the project includes a fit-up renovation of an existing building. The cost includes design, materials, contract labor for construction, project management and general and administrative loads.

Project Alternatives

It is a management decision to consolidate maintenance crews into a single base of operations to enable more efficient management and utilization of plant of the crews.

Technical Aspects

The scope of work is the reconfiguration of an existing building to accommodate the consolidation of the maintenance resources.

The scope of work includes removing the existing shop benches for the Instrument/Control/Electricians and installing tooling (saws, drills, presses, welding equipment, lathes, etc.), workbenches and personnel lockers for the plant mechanics. The cost is based on a reasonable allowance of funding to support this project and backed by the standard fit-up cost of \$35 per square foot.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76516036	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76516036	Year	2016												
	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	19,520	19,520	78,100	39,050	19,520	19,520	0	0	0	0	195,230
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	463	463	1,851	925	463	463	0	0	0	0	4,628
	928-AFUDC Debt Reg	0	0	0	9	26	70	123	149	167	0	0	0	0	544
	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	-9,991	-9,991	-39,975	-19,988	-9,991	-9,991	0	0	0	0	-99,927
	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	10,001	10,018	40,046	20,110	10,141	10,159	0	0	0	0	100,475
	825-Clearings	0	0	0	0	0	0	0	0	-100,472	0	0	0	0	-100,472
	Clr Sum	0	0	0	0	0	0	0	0	-100,472	0	0	0	0	-100,472
	Proj Net	0	0	0	10,001	10,018	40,046	20,110	10,141	-90,313	0	0	0	0	3

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76516036	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	195,230	0	0	0	0	0	0	0	0	0	0	0	0	195,230
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	4,628	0	0	0	0	0	0	0	0	0	0	0	0	4,628
	928-AFUDC Debt Reg	544	0	0	0	0	0	0	0	0	0	0	0	0	544
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-99,927	0	0	0	0	0	0	0	0	0	0	0	0	-99,927
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	100,475	0	0	0	0	0	0	0	0	0	0	0	0	100,475
	825-Clearings	-100,472	0	0	0	0	0	0	0	0	0	0	0	0	-100,472
	Clr Sum	-100,472	0	0	0	0	0	0	0	0	0	0	0	0	-100,472
Proj Net		3	0	0	0	0	0	0	0	0	0	0	0	0	3

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***Project No: 76516715 Units 1&2 Plant Air Compressor Replacement***

Company: 003  
Location: 765 San Juan

Project Information

Construction Start Date 3/1/2016 Estimated Completion Date 8/30/2016

List Interim In-Service Dates

0

Project Need Justification

The existing plant compressed air system compressors are unreliable and at the end of design life. Plant compressed air is used for service functions throughout the units. These functions include soot blowing (using compressed air delivered by a lance inside the furnace section of the boiler to remove slag that accumulates on tube surfaces and degrades heat transfer), valve actuation, process control and utility service (e.g. power pneumatic tools). The replacement of the compressed air system will ensure that the equipment relying on compressed air will be fully operable for all work activities on an as needed basis.

Compressed air is a safe and efficient energy source used in all industrial environments.

Project Alternatives

There are two alternatives for this project: 1) to do nothing or 2) purchase and install a new air compressor. The "do nothing" approach is not viable as compressed air is a vital energy source in the power plant. As indicated above, compressed air is needed to drive control valves, drive pneumatically actuated shutoff valves, operate solenoid valves, pulse clean fabric filter bags and power pneumatic tools.

The second alternative is the best option as it addresses the issue that the current compressors are now unreliable and reaching the end of their design life. Several types of air compressors are commercially available and will be considered for this application. The best air compressor system solution will be determined based on a competitive bid process.

Technical Aspects

The scope is to replace the obsolete air compressor with a modern energy efficient compressor of a more recent design and have greater energy efficiency than the current model. A specification identifying the general requirements of the compressor will be issued for competitive bids.

The project estimate is based on budgetary information provided by equipment manufacturers such as Ingersoll Rand.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76516715	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76516715	Year	2016												
	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	300,000	200,000	200,000	50,000	0	0	0	0	0	750,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	7,110	4,740	4,740	1,185	0	0	0	0	0	17,775
	928-AFUDC Debt Reg	0	0	0	0	134	359	538	651	0	0	0	0	0	1,682
	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	-153,555	-102,370	-102,370	-25,593	0	0	0	0	0	-383,888
	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	153,689	102,729	102,908	26,243	0	0	0	0	0	385,569
	825-Clearings	0	0	0	0	0	0	0	-385,570	0	0	0	0	0	-385,570
	Clr Sum	0	0	0	0	0	0	0	-385,570	0	0	0	0	0	-385,570
	Proj Net	0	0	0	0	153,689	102,729	102,908	-359,327	0	0	0	0	0	-1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76516715	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	750,000	0	0	0	0	0	0	0	0	0	0	0	0	750,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	17,775	0	0	0	0	0	0	0	0	0	0	0	0	17,775
	928-AFUDC Debt Reg	1,682	0	0	0	0	0	0	0	0	0	0	0	0	1,682
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-383,888	0	0	0	0	0	0	0	0	0	0	0	0	-383,888
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	385,569	0	0	0	0	0	0	0	0	0	0	0	0	385,569
	825-Clearings	-385,570	0	0	0	0	0	0	0	0	0	0	0	0	-385,570
	Clr Sum	-385,570	0	0	0	0	0	0	0	0	0	0	0	0	-385,570
	Proj Net	-1	0	0	0	0	0	0	0	0	0	0	0	0	-1

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***Project No: 76516717 Units 1&2 Roof Refurbishment - 2015***

Company: 003  
Location: 765 San Juan

**Project Information**

Construction Start Date 6/1/2015 Estimated Completion Date 12/31/2016

List Interim In-Service Dates

0

Project Need Justification

Routine major maintenance activities that meet the criteria for capitalization are necessary to keep site buildings, access ways, lighting and infrastructure in a safe and reliable condition. This project scope of work is for the replacement of a roof system that has met its normal life expectancy and requires replacement. The funds for this project include internal and external labor as well as the roof replacement materials.

This project is included in the test period projected balances for CWIP related to generation, transmission, distribution, and general and intangible plant as of September 30, 2016 that are projected to be in service within five months after the end of the test period.

Pursuant to NMSA 1978, § 62-6-14(E), a utility is allowed to request to include in rate base CWIP for projects that are projected to be in service the lesser of five months after the end of the test period or 24 months after the end of the base period. PNM is requesting the inclusion of CWIP balances for projects such as this one with a projected in-service date by February 2017.

Project Alternatives

Building maintenance activities have no alternatives as long as the facilities are occupied and used for production activities. There is some discretion in the timing of these investments and typically they are arranged (when possible) in years when there are no planned outages as non-outage years typically have less project management demands and lower capital funding requirements. Various replacement options were considered and the identified sheet roof solution best meets the needs at a reasonable cost with a reasonable level of required maintenance.

Technical Aspects

Replace failed roofing with fully adhered roofing system. Roof replacements include removal of the existing ballast and/or fully adhered waterproof membrane, insulation and decking (if necessary). Some of the original roofing systems used asbestos containing materials so abatement is necessary. The scope of the work includes: replacing removed insulation with Cellular Concrete Roof Deck Insulation over existing built-up roof membrane, providing slopes and crickets as indicated on Roof Plan, providing solid adhered fleece backed PVC membrane over new 1/4" tapered cellular concrete roof deck insulation, providing ConTrough for overflows, and furnishing and installing a 80 mil, white, polyester scrim reinforced, KEE PVC elastomeric sheet roofing membrane system. The membrane shall be a high molecular weight PVC polymer membrane. Additionally, the installed system shall include induced welded plates & fasteners, insulation, flashing, sealants and all accessories and labor necessary for a complete insulated sheet roofing assembly. Page 1



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76516717	Year	2015												
Cost_Type	Bal 3/31/15	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				
120-Overtime-General	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				
370-Outside Services	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				
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0				
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0				
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0				
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0				
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0				
807-Non Refundable Contribution	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				
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0				
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0				
908-Luna AR - Other	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				
914-Pension and Benefits Load	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				
918-San Juan AR-Labor	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				
922-Minor Material Load	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				
926-A and G Loads	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				
929-AFUDC - Equity Regular	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				
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0				
Cost Sum	0	0	0	0	0	0	0	0	0	0	0				
825-Clearings	0	0	0	0	0	0	0	0	0	0	0				
Clr Sum	0	0	0	0	0	0	0	0	0	0	0				
Proj Net	0	0	0	0	0	0	0	0	0	0	0				

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76516717	Year	2016												
	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	117,200	212,000	0	0	0	0	0	329,200
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	2,778	5,024	0	0	0	0	0	7,802
	928-AFUDC Debt Reg	0	0	0	0	0	0	52	200	295	296	296	297	297	1,733
	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	-59,989	-108,512	0	0	0	0	0	-168,501
	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	60,041	108,712	295	296	296	297	297	170,234
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-170,235	-170,235
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-170,235	-170,235
	Proj Net	0	0	0	0	0	0	60,041	108,712	295	296	296	297	-169,938	-1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76516717	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	329,200	0	0	0	0	0	0	0	0	0	0	0	0	329,200
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	7,802	0	0	0	0	0	0	0	0	0	0	0	0	7,802
	928-AFUDC Debt Reg	1,733	0	0	0	0	0	0	0	0	0	0	0	0	1,733
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-168,501	0	0	0	0	0	0	0	0	0	0	0	0	-168,501
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	170,234	0	0	0	0	0	0	0	0	0	0	0	0	170,234
	825-Clearings	-170,235	0	0	0	0	0	0	0	0	0	0	0	0	-170,235
	Clr Sum	-170,235	0	0	0	0	0	0	0	0	0	0	0	0	-170,235
	Proj Net	-1	0	0	0	0	0	0	0	0	0	0	0	0	-1

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***Project No: 76616030 Plant Common Brine Concentrator 4 Tube Bundle Bypass***

Company: 003

Location: 766 San Juan

Project Information

Construction Start Date 5/1/2015

Estimated Completion Date 8/31/2016

List Interim In-Service Dates

0

Project Need Justification

San Juan Generating Station uses a brine treatment technology to handle process waste water flows. The treatment is necessary to comply with San Juan's zero liquid discharge requirements.

Brine treatment involves removing dissolved salt ions from the waste stream. Although similarities to seawater or brackish water desalination exist, industrial brine treatment may contain unique combinations of dissolved ions, such as hardness ions or other metals, necessitating specific processes and equipment.

Brine treatment systems are typically optimized to either reduce the volume of the final discharge for more economic disposal (as disposal costs are often based on volume) or maximize the recovery of fresh water or salts. Brine treatment systems may also be optimized to reduce electricity consumption, chemical usage or physical footprint.

Brine treatment is commonly encountered when treating cooling tower blowdown, produced water from steam assisted gravity drainage (SAGD), produced water from natural gas extraction such as coal seam gas, frac flowback water, acid mine or acid rock drainage, reverse osmosis reject chlor-alkali wastewater, pulp and paper mill effluent, and waste streams from food and beverage processing.

Brine treatment technologies may include: membrane filtration processes, such as reverse osmosis; ion exchange processes such as electrodialysis or weak acid cation exchange; or evaporation processes, such as brine concentrators and crystallizers employing mechanical vapour recompression and steam.

Reverse osmosis may not be viable for brine treatment, due to the potential for fouling caused by hardness salts or organic contaminants, or damage to the reverse osmosis membranes from hydrocarbons.

Evaporation processes are the most widespread for brine treatment as they enable the highest degree of concentration, as high as solid salt. They also produce the highest purity effluent, even distillate-quality. Evaporation processes are also more tolerant of organics, hydrocarbons, or hardness salts. However, energy consumption is high and corrosion may be an issue as the prime mover is concentrated salt water. As a result, evaporation systems typically employ titanium or duplex stainless steel materials.

With the current Brine Concentrator configuration, under certain conditions the flow through the tube bundle is curtailed. Flow curtailment creates the need to clean and "reseed" (establish the concentrated salt water solution that is the prime mover in the treatment process) the tube bundle. It has been determined that installation of a tube bundle bypass will improve equipment reliability and reduce cleaning and reseed maintenance expense.

The cost to reseed is \$150,000 per occurrence.

The cost of the project includes engineering, materials, contract labor for installation, project management, general and administrative loads and AFUDC.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Project Alternatives

The only alternative is the "do nothing" alternative. The identified tube bundle bypass solution is superior to the "do nothing" alternative because of the reliability improvements as well as the maintenance cost savings. The preferred alternative of installing a bypass will drive maintenance cost out of the business.

Technical Aspects

The scope includes the design and installation of bypass piping, valves and controls. Execution of this work is not contingent on a generating unit outage.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76616030	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616030	Year	2016												
	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	100,000	100,000	100,000	115,000	0	0	0	0	415,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	2,370	2,370	2,370	2,726	0	0	0	0	9,836
	928-AFUDC Debt Reg	0	0	0	0	0	53	158	263	377	0	0	0	0	851
	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	-42,308	-42,308	-42,308	-48,655	0	0	0	0	-175,579
	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	60,115	60,220	60,325	69,448	0	0	0	0	250,108
	825-Clearings	0	0	0	0	0	0	0	0	-250,105	0	0	0	0	-250,105
	Clr Sum	0	0	0	0	0	0	0	0	-250,105	0	0	0	0	-250,105
	Proj Net	0	0	0	0	0	60,115	60,220	60,325	-180,657	0	0	0	0	3

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616030	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	415,000	0	0	0	0	0	0	0	0	0	0	0	0	415,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	9,836	0	0	0	0	0	0	0	0	0	0	0	0	9,836
	928-AFUDC Debt Reg	851	0	0	0	0	0	0	0	0	0	0	0	0	851
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-175,579	0	0	0	0	0	0	0	0	0	0	0	0	-175,579
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	250,108	0	0	0	0	0	0	0	0	0	0	0	0	250,108
	825-Clearings	-250,105	0	0	0	0	0	0	0	0	0	0	0	0	-250,105
	Clr Sum	-250,105	0	0	0	0	0	0	0	0	0	0	0	0	-250,105
	Proj Net	3	0	0	0	0	0	0	0	0	0	0	0	0	3

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***Project No: 76616120 Common Replace Coal Reclaim Chutes***

Company: 003  
Location: 766 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 4/30/2016

List Interim In-Service Dates

0

Project Need Justification

The San Juan coal handling systems are antiquated and in need of significant modifications to address safety issues (e.g., control of combustible dust), obsolescence issues, performance issues, and consolidation following the decommissioning of two units. This project although named "C&D Coal Reclaim Chutes" is more extensive in scope than just the chutes themselves. The "chutes" are the internal term for the complete reclaim system which includes grizzlies, vibratory feeders, transfer belts, reclaim chutes and loading chutes.

The C&D reclaim is the sole means through which coal is delivered to all San Juan generating units. Loss of this system interrupts the coal flow to the units and will result in unit derates and possibly unit outages, if the flow of coal is interrupted for an extended period of time.

The scope of this project includes upgrades to the entire system and all of its components. The project will develop and be placed in service over a period of three years. The scope of this first phase of the project is to conduct engineering for a system-wide solution to the safety, obsolescence and performance issues of the C&D reclaim chutes.

In addition to preliminary engineering, the first phase of the project will address safety issues in the reclaim system. This includes controlling combustible dust and shielding employees from rotating components. The conveyance technology currently installed in C&D Reclaim to move coal from the reclaim chutes to the conveyor belts is vibratory feeders. This type of feeder inherently generates large volumes of combustible coal dust. The initial construction involves the installation of skirtboards and hoods designed to contain combustible dust and the installation of shields and equipment guards to prevent employee exposure to rotating equipment.

The balance of the project, to be completed at a later date, will be the replacement of equipment with more modern equipment and the reconfiguration of chutes which generate combustible dust.

The project includes engineering, materials, contract labor for installation, project management, and general and administrative loads.

#### Project Alternatives

There is not a "do nothing" alternative to addressing the issue of combustible dust and the potential safety hazards related to rotating equipment. This is a large complex project. Interim solutions such as dust containment and equipment guarding are being implemented to address the most serious safety issues while a more comprehensive and long term solution is being evaluated and engineered.

#### Technical Aspects

This project will ultimately replace obsolete equipment with an improved technology for bulk material movement. This project has a broad scope that includes the replacement of feeders, belts and chutes. The needed changes in chute geometry and the installation of new dust collection equipment will require structural, electrical, piping and control changes. Conceptual engineering must be completed before a complete scope can be defined. This approach is consistent with PNM's "2 Step CDAP" process for developing and executing capital projects.

The initial construction activities will include installation of expanded metal cages and screens to safeguard employees from rotating equipment. The area where the equipment is located is cramped and normal operations and maintenance activities expose employees to hazards such as becoming entangled with rotating equipment.

Steel skirt boxes with rubber seals will be installed at conveyor belt loading points to contain combustible dust. There are six (6) loading points at both the C and D reclaim chutes for a total of twelve (12) loading points in the system.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76616120	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	0		0	0	0	0	0	0	500,000	500,000	0	1,000,000
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		0	0	0	0	0	0	11,850	11,850	0	23,700
	928-AFUDC Debt Reg	0		0	0	0	0	0	0	387	1,163	1,557	3,107
	929-AFUDC - Equity Regular	0		0	0	0	0	0	0	552	1,661	2,224	4,437
	937-San Juan AR - Other	0		0	0	0	0	0	0	-211,542	-211,542	0	-423,085
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	301,247	303,132	3,781	608,159
	825-Clearings	0		0	0	0	0	0	0	0	0	-608,159	-608,159
	Clr Sum	0		0	0	0	0	0	0	0	0	-608,159	-608,159
	Proj Net	0		0	0	0	0	0	0	301,247	303,132	-604,378	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616120	Year	2016												
	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	1,000,000	0	0	0	0	0	0	0	0	0	0	0	0	1,000,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	23,700	0	0	0	0	0	0	0	0	0	0	0	0	23,700
	928-AFUDC Debt Reg	3,107	0	0	0	0	0	0	0	0	0	0	0	0	3,107
	929-AFUDC - Equity Regular	4,437	0	0	0	0	0	0	0	0	0	0	0	0	4,437
	937-San Juan AR - Other	-423,085	0	0	0	0	0	0	0	0	0	0	0	0	-423,085
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	608,159	0	0	0	0	0	0	0	0	0	0	0	0	608,159
	825-Clearings	-608,159	0	0	0	0	0	0	0	0	0	0	0	0	-608,159
	Clr Sum	-608,159	0	0	0	0	0	0	0	0	0	0	0	0	-608,159
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616120	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	1,000,000	0	0	0	0	0	0	0	0	0	0	0	0	1,000,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	23,700	0	0	0	0	0	0	0	0	0	0	0	0	23,700
	928-AFUDC Debt Reg	3,107	0	0	0	0	0	0	0	0	0	0	0	0	3,107
	929-AFUDC - Equity Regular	4,437	0	0	0	0	0	0	0	0	0	0	0	0	4,437
	937-San Juan AR - Other	-423,085	0	0	0	0	0	0	0	0	0	0	0	0	-423,085
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	608,159	0	0	0	0	0	0	0	0	0	0	0	0	608,159
	825-Clearings	-608,159	0	0	0	0	0	0	0	0	0	0	0	0	-608,159
	Clr Sum	-608,159	0	0	0	0	0	0	0	0	0	0	0	0	-608,159
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76616136 Plant Common Replace Piping Containing Asbestos at NSWW - 2016***

Company: 003  
Location: 766 San Juan

**Project Information**

Construction Start Date 5/1/2016 Estimated Completion Date 9/30/2016

List Interim In-Service Dates

0

Project Need Justification

This project is part of an ongoing initiative to remove asbestos containing materials. The original piping systems at the Northside Wastewater Treatment Plant used “Bondstrand” fiberglass wound epoxy composite pipe. The pipe was fabricated with asbestos as it was an accepted industry standard for thermal insulation and fire resistance at that time.

The piping in question at the Northside Wastewater Treatment Plant is used to handle concentrated brine solutions. The concentrated brine is part of the treatment necessary to enable San Juan Station to be a zero liquid discharge facility.

The cost of the project includes materials, contract labor for installation, disposal of hazardous materials, project management, general and administrative loads and AFUDC.

Project Alternatives

The alternatives are to 1) continue to work in an environment where known asbestos containing materials are present, 2) attempt to mitigate exposures by applying an encapsulating material or 3) replace the asbestos containing materials with different materials.

The option to remove and replace the asbestos containing materials was selected because it results in the safest work environment for employees and fully remediates an environmental hazard. Encapsulation was determined to be only a short term remedy.

Technical Aspects

The asbestos containing piping materials will be replaced with stainless steel piping. The scope of work includes replacing 150 linear feet of 12” diameter Bondstrand pipe with 12” stainless steel pipe.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76616136	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	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
	929-AFUDC - Equity Regular	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
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	0	0	0	0
	825-Clearings	0		0	0	0	0	0	0	0	0	0	0
	Clr Sum	0		0	0	0	0	0	0	0	0	0	0
	Proj Net	0		0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 76616136	Year	2016													
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	29,250	58,550	78,090	29,500	0	0	0	0	195,390	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	693	1,388	1,851	699	0	0	0	0	4,631	
928-AFUDC Debt Reg	0	0	0	0	0	15	62	133	190	0	0	0	0	400	
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	-12,375	-24,772	-33,039	-12,481	0	0	0	0	-82,667	
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	17,583	35,228	47,035	17,908	0	0	0	0	117,754	
825-Clearings	0	0	0	0	0	0	0	0	-117,755	0	0	0	0	-117,755	
Clr Sum	0	0	0	0	0	0	0	0	-117,755	0	0	0	0	-117,755	
Proj Net	0	0	0	0	0	17,583	35,228	47,035	-99,847	0	0	0	0	-1	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616136	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	195,390	0	0	0	0	0	0	0	0	0	0	0	0	195,390
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	4,631	0	0	0	0	0	0	0	0	0	0	0	0	4,631
	928-AFUDC Debt Reg	400	0	0	0	0	0	0	0	0	0	0	0	0	400
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-82,667	0	0	0	0	0	0	0	0	0	0	0	0	-82,667
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	117,754	0	0	0	0	0	0	0	0	0	0	0	0	117,754
	825-Clearings	-117,755	0	0	0	0	0	0	0	0	0	0	0	0	-117,755
	Clr Sum	-117,755	0	0	0	0	0	0	0	0	0	0	0	0	-117,755
	Proj Net	-1	0	0	0	0	0	0	0	0	0	0	0	0	-1

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***Project No: 76616215    Common Coal Chute Air Cannons***

Company:        003  
Location:        766 San Juan

Project Information

Construction Start Date            5/1/2015                            Estimated Completion Date        11/30/2016

List Interim In-Service Dates

0

Project Need Justification

Coal chute and silo pluggage has become a recurring problem at San Juan Generating Station. The pluggage is essentially the blockage of coal flow through the conveying system due to agglomeration (which is a jumbled cluster or mass of varied parts.) A manual method was used to address the ongoing problem until it was deemed an unsafe practice and stopped. The installation of air cannons is necessary as a safer means to eliminate coal chute and silo pluggage. The air cannons operate by providing a blast of motive force to free the pluggage. Removal of the pluggage eliminates safety risks related to fires as well and the availability of the unit to meet full load when necessary. The funds for this project are for costs such as engineering, materials, contract labor for installation, project management, and general and administrative loads.

This project is included in the test period projected balances for CWIP related to generation, transmission, distribution, and general and intangible plant as of September 30, 2016 that are projected to be in service within five months after the end of the test period.

Pursuant to NMSA 1978, § 62-6-14(E), a utility is allowed to request to include in rate base CWIP for projects that are projected to be in service the lesser of five months after the end of the test period or 24 months after the end of the base period. PNM is requesting the inclusion of CWIP balances for projects such as this one with a projected in-service date by February 2017.

Project Alternatives

There is not a "do nothing" alternative to addressing the issue of chute and silo pluggage. Given that the current manual method of addressing chute and silo pluggage is recognized as unsafe, it cannot be considered as an option.

Other technical alternatives include electric vibrators, hydraulic vibrators and pneumatic vibrators. All of these options were evaluated to have higher installed costs. Each would also require additional design work and potential chute and silo modifications to prevent metal fatigue resulting from the vibration.

Technical Aspects

Install multiple air canons on Coal Handling chutes to eliminate or minimize access required by Operations personnel to unplug coal chutes. Air cannons will also reduce future costs required for new platforms and clean out doors to meet new site "confined space" access rules.

Air cannons would be installed in three coal handling areas.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

These areas include:

- 3C & 3D Reclaims-Coal chutes from hopper feeder to Reclaim conveyor belt.
- Secondary Crusher Building coal chutes fed from 3 C&D Reclaims
- Tripper deck for 4A & 4b Coal chutes

The installation also includes piping, pipe hangers, valves, controls, cable and conduit.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76616215	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	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
	929-AFUDC - Equity Regular	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
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	0	0	0	0
	825-Clearings	0		0	0	0	0	0	0	0	0	0	0
	Clr Sum	0		0	0	0	0	0	0	0	0	0	0
	Proj Net	0		0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616215	Year	2016											
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	8,475	23,540	47,081	47,081	70,621	23,540	23,540	0	243,878
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	201	558	1,116	1,116	1,674	558	558	0	5,781
928-AFUDC Debt Reg	0	0	0	0	0	4	21	58	108	170	220	245	0	826
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	-3,585	-9,960	-19,919	-19,919	-29,879	-9,960	-9,960	0	-103,182
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	0	0	0	0	0	5,095	14,159	28,336	28,386	42,586	14,358	14,383	0	147,303
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	-147,305	0	-147,305
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	-147,305	0	-147,305
Proj Net	0	0	0	0	0	5,095	14,159	28,336	28,386	42,586	14,358	-132,922	0	-2

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616215	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	243,878	0	0	0	0	0	0	0	0	0	0	0	0	243,878
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	5,781	0	0	0	0	0	0	0	0	0	0	0	0	5,781
	928-AFUDC Debt Reg	826	0	0	0	0	0	0	0	0	0	0	0	0	826
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-103,182	0	0	0	0	0	0	0	0	0	0	0	0	-103,182
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	147,303	0	0	0	0	0	0	0	0	0	0	0	0	147,303
	825-Clearings	-147,305	0	0	0	0	0	0	0	0	0	0	0	0	-147,305
	Clr Sum	-147,305	0	0	0	0	0	0	0	0	0	0	0	0	-147,305
	Proj Net	-2	0	0	0	0	0	0	0	0	0	0	0	0	-2

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***Project No: 76617115    Common NERC Split MESH Network***

Company:        003  
Location:        766 San Juan

Project Information

Construction Start Date        1/1/2015                      Estimated Completion Date        09/30/2015

List Interim In-Service Dates

0

Project Need Justification

As an owner and operator of a Bulk Electric System (BES), PNM is required to comply with applicable standards from the North America Energy Reliability Council (NERC). This project is related to NERC compliance. Many standards apply but most of these projects are aimed at compliance with the latest version of the NERC CIP (Critical Infrastructure Protection) standard.

NERC CIP (Critical Infrastructure Program) provides language to define how splitting the San Juan Generating Station (SJGS) control system network into two separate networks will lower the facility's future risk level from medium to low as CIP version 5 defines it. The implication of this is that splitting the MESH control network into two networks will lower owner cost, increase efficiency, and improve security while remaining compliant with CIP requirements.

The "Split MESH" project will move SJGS from a "medium risk" asset to a "low risk" asset. The low risk designation will reduce compliance efforts and costs.

Project Alternatives

The alternative is to leave the network as is and forfeit the benefits described above, namely a lower risk designation and reduced efforts to be compliant and the costs associated with compliance.

Technical Aspects

Physically divide the plant data highway into discrete segments so the facility can move from a "medium risk" classification to a "low risk" classification. This will be conducted by installing additional computer hardware (servers) and migrating some portion of the current control system onto it. Note that other portions of the control system network will remain intact.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76617115	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,083		0	0	0	0	0	0	0	0	0	7,083
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	238,465		0	0	0	0	0	0	0	0	0	238,465
	370-Outside Services	56,536		94,500	67,500	0	0	0	0	0	0	0	218,536
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	401		0	0	0	0	0	0	0	0	0	401
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	1,464		0	0	0	0	0	0	0	0	0	1,464
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	477		0	0	0	0	0	0	0	0	0	477
	914-Pension and Benefits Load	2,157		0	0	0	0	0	0	0	0	0	2,157
	915-Injuries and Damages Load	348		0	0	0	0	0	0	0	0	0	348
	918-San Juan AR-Labor	-5,406		0	0	0	0	0	0	0	0	0	-5,406
	921-Stores / Purchasing Load	1,929		0	0	0	0	0	0	0	0	0	1,929
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,269		0	0	0	0	0	0	0	0	0	3,269
	926-A and G Loads	7,169		2,240	1,600	0	0	0	0	0	0	0	11,008
	928-AFUDC Debt Reg	0		456	584	640	644	648	652	0	0	0	3,625
	929-AFUDC - Equity Regular	0		651	834	914	920	926	931	0	0	0	5,176
	937-San Juan AR - Other	-165,281		-39,982	-28,558	0	0	0	0	0	0	0	-233,820
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	148,611		57,865	41,960	1,554	1,564	1,574	1,584	0	0	0	254,712
	825-Clearings	0		0	0	0	0	0	-254,712	0	0	0	-254,712
	Clr Sum	0		0	0	0	0	0	-254,712	0	0	0	-254,712
	Proj Net	148,611		57,865	41,960	1,554	1,564	1,574	-253,129	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76617115	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,083	0	0	0	0	0	0	0	0	0	0	0	0	7,083
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	238,465	0	0	0	0	0	0	0	0	0	0	0	0	238,465
	370-Outside Services	218,536	0	0	0	0	0	0	0	0	0	0	0	0	218,536
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	401	0	0	0	0	0	0	0	0	0	0	0	0	401
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	1,464	0	0	0	0	0	0	0	0	0	0	0	0	1,464
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	477	0	0	0	0	0	0	0	0	0	0	0	0	477
	914-Pension and Benefits Load	2,157	0	0	0	0	0	0	0	0	0	0	0	0	2,157
	915-Injuries and Damages Load	348	0	0	0	0	0	0	0	0	0	0	0	0	348
	918-San Juan AR-Labor	-5,406	0	0	0	0	0	0	0	0	0	0	0	0	-5,406
	921-Stores / Purchasing Load	1,929	0	0	0	0	0	0	0	0	0	0	0	0	1,929
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,269	0	0	0	0	0	0	0	0	0	0	0	0	3,269
	926-A and G Loads	11,008	0	0	0	0	0	0	0	0	0	0	0	0	11,008
	928-AFUDC Debt Reg	3,625	0	0	0	0	0	0	0	0	0	0	0	0	3,625
	929-AFUDC - Equity Regular	5,176	0	0	0	0	0	0	0	0	0	0	0	0	5,176
	937-San Juan AR - Other	-233,820	0	0	0	0	0	0	0	0	0	0	0	0	-233,820
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	254,712	0	0	0	0	0	0	0	0	0	0	0	0	254,712
	825-Clearings	-254,712	0	0	0	0	0	0	0	0	0	0	0	0	-254,712
	Clr Sum	-254,712	0	0	0	0	0	0	0	0	0	0	0	0	-254,712
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76617115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,083	0	0	0	0	0	0	0	0	0	0	0	0	7,083
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	238,465	0	0	0	0	0	0	0	0	0	0	0	0	238,465
	370-Outside Services	218,536	0	0	0	0	0	0	0	0	0	0	0	0	218,536
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	401	0	0	0	0	0	0	0	0	0	0	0	0	401
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	1,464	0	0	0	0	0	0	0	0	0	0	0	0	1,464
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	477	0	0	0	0	0	0	0	0	0	0	0	0	477
	914-Pension and Benefits Load	2,157	0	0	0	0	0	0	0	0	0	0	0	0	2,157
	915-Injuries and Damages Load	348	0	0	0	0	0	0	0	0	0	0	0	0	348
	918-San Juan AR-Labor	-5,406	0	0	0	0	0	0	0	0	0	0	0	0	-5,406
	921-Stores / Purchasing Load	1,929	0	0	0	0	0	0	0	0	0	0	0	0	1,929
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	3,269	0	0	0	0	0	0	0	0	0	0	0	0	3,269
	926-A and G Loads	11,008	0	0	0	0	0	0	0	0	0	0	0	0	11,008
	928-AFUDC Debt Reg	3,625	0	0	0	0	0	0	0	0	0	0	0	0	3,625
	929-AFUDC - Equity Regular	5,176	0	0	0	0	0	0	0	0	0	0	0	0	5,176
	937-San Juan AR - Other	-233,820	0	0	0	0	0	0	0	0	0	0	0	0	-233,820
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	254,712	0	0	0	0	0	0	0	0	0	0	0	0	254,712
	825-Clearings	-254,712	0	0	0	0	0	0	0	0	0	0	0	0	-254,712
	Clr Sum	-254,712	0	0	0	0	0	0	0	0	0	0	0	0	-254,712
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Project No: 76617315    Common A&B Coal Reclaim System Refurbishment**

Company: 003  
Location: 766 San Juan

Project Information

Construction Start Date                      5/1/2015                      Estimated Completion Date                      12/30/2015

List Interim In-Service Dates

0

Project Need Justification

The San Juan Generating Station A and B coal reclaim systems have been out of service for several years. The facility was abandoned following a water line rupture that flooded the reclaim pit and access tunnel. All of the equipment in the reclaim pit (feeders, conveyor belts, dust collection equipment) suffered water damage. At that time, it was determined that San Juan Generating Station's fuel requirements could be met using only the C and D reclaim systems.

With the expiration of the coal supply agreement with BHP Billiton, PNM has been evaluating other coal supply resource opportunities. In order to be capable of receiving coal from another source, the A and B reclaim system would need to be operational. Refurbishing the A and B reclaim system and returning it to service bring an added benefit of redundancy to the C and D reclaim system. This will reduce the risk of lost reliability due to interruptions in the supply of coal to the boilers.

The scope of this project is to perform conceptual engineering to determine the scope of work necessary to return the A and B reclaim system to operation and to comply with all applicable codes.

Completion of this project will give PNM leverage in negotiating coal supply options and coal pricing.

The project cost includes engineering, investigative studies and project management.

Project Alternatives

The alternative to the scope of the project is to leave A and B reclaim system out of service. Management has determined there is a reasonable potential that an alternative fuel supply is a viable option (Ute Mountain Ute). To make this option a potential reality, the A and B reclaim must be returned to service.

Several options regarding equipment and installation will be evaluated as the project develops.

Technical Aspects

This will be a phased project that complies with PNM's 2 Step CDAP process for large capital projects. The scope of work for the first phase is to determine

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

the condition of the existing equipment and the extent of upgrades required first make the equipment functional again and then make it compliant with current codes. A detailed cost estimate and schedule for the total project will be developed during this first phase. The final Conceptual engineering must be completed before a complete scope can be defined for Phase 2 of the project.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76617315	Year	2015									
	Cost_Type	Bal 3/31/15	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
	120-Overtime-General	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
	370-Outside Services	0	0	63,850	-18,250	48,250	48,250	0	192,500	95,500	0	430,100
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0	0	1,513	-433	1,144	1,144	0	4,562	2,263	0	10,193
	928-AFUDC Debt Reg	0	0	49	85	109	184	223	373	598	0	1,621
	929-AFUDC - Equity Regular	0	0	71	121	155	263	318	533	854	0	2,314
	937-San Juan AR - Other	0	0	-27,014	7,721	-20,414	-20,414	0	-81,444	-40,405	0	-181,969
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	38,469	-10,755	29,244	29,427	540	116,524	58,811	0	262,260
	825-Clearings	0	0	0	0	0	0	0	0	-262,260	0	-262,260
	Clr Sum	0	0	0	0	0	0	0	0	-262,260	0	-262,260
	Proj Net	0	0	38,469	-10,755	29,244	29,427	540	116,524	-203,449	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76617315	Year	2016												
	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	430,100	0	0	0	0	0	0	0	0	0	0	0	0	430,100
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	10,193	0	0	0	0	0	0	0	0	0	0	0	0	10,193
	928-AFUDC Debt Reg	1,621	0	0	0	0	0	0	0	0	0	0	0	0	1,621
	929-AFUDC - Equity Regular	2,314	0	0	0	0	0	0	0	0	0	0	0	0	2,314
	937-San Juan AR - Other	-181,969	0	0	0	0	0	0	0	0	0	0	0	0	-181,969
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	262,260	0	0	0	0	0	0	0	0	0	0	0	0	262,260
	825-Clearings	-262,260	0	0	0	0	0	0	0	0	0	0	0	0	-262,260
	Clr Sum	-262,260	0	0	0	0	0	0	0	0	0	0	0	0	-262,260
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76617315	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	430,100	0	0	0	0	0	0	0	0	0	0	0	0	430,100
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	10,193	0	0	0	0	0	0	0	0	0	0	0	0	10,193
	928-AFUDC Debt Reg	1,621	0	0	0	0	0	0	0	0	0	0	0	0	1,621
	929-AFUDC - Equity Regular	2,314	0	0	0	0	0	0	0	0	0	0	0	0	2,314
	937-San Juan AR - Other	-181,969	0	0	0	0	0	0	0	0	0	0	0	0	-181,969
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	262,260	0	0	0	0	0	0	0	0	0	0	0	0	262,260
	825-Clearings	-262,260	0	0	0	0	0	0	0	0	0	0	0	0	-262,260
	Clr Sum	-262,260	0	0	0	0	0	0	0	0	0	0	0	0	-262,260
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76617515 Common PBX Replacement and Backup Power***

Company: 003  
Location: 766 San Juan

Project Information

Construction Start Date 1/1/2016 Estimated Completion Date 7/30/2016

List Interim In-Service Dates

0

Project Need Justification

The phone system at the plant is obsolete and no longer supported by the manufacturer. As parts in the system fail, we have had trouble finding replacement parts, which jeopardizes the ability for San Juan to have a reliable phone system. Over the last two years, the number of outages and the duration of the outages have increased due to the age of the system.

The current PBX "phone system" was installed in 1984. The model is no longer supported by Avaya. Parts are no longer manufactured or available from Avaya. The only source of replacement parts are on the used market and are difficult to find. Due to the age of the system, we have had multiple hardware issues over the last few years including some that resulted in the system being down for over 48 hours.

The phone system wiring around the plant site is also in need of replacement. We have many issues with pairs detreating to the point that they cannot be used. This is causing lines to be of poor quality or to fail. We also have buildings with available pairs to add phones.

The risk of not replacing the system is that all phones, including the emergency line [7777] and outside E911, not being available in an emergency. Due to the rural location of San Juan Generating, cell service is not reliable.

The Costs will cover outside contractors for cable installation, system integration, and consulting, equipment, and outside and internal labor.

Project Alternatives

We have stocked spare parts for the existing system when we can find parts available, however not all parts are available for purchase.

We have not selected a specific model or brand at this time. Until funding is available, we have resisted determining the best solution due to the rapid changes in technology, models, and costs of this type of system.



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A formal RFP process will be followed to determine the appropriate vendor and model of system at a reasonable cost that meets the needs of San Juan.

A final solution has not been determined. The system will need to integrate with PNM existing systems and provide a path for future technologies.

#### Technical Aspects

The project will consist of installing a new Private Branch Exchange (PBX) system, voicemail, and telephone handsets sized to meet the needs of the San Juan facilities. Once the new system is installed and fully tested, all phone lines and users will be migrated to the new system and the old system will be decommissioned.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76617515	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 76617515	Year	2016												
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	25,000	25,000	0	0	400,000	300,000	0	0	0	0	0	0	750,000
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads	0	593	593	0	0	9,480	7,110	0	0	0	0	0	0	17,776
928-AFUDC Debt Reg	0	13	39	53	53	263	631	0	0	0	0	0	0	1,052
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
937-San Juan AR - Other	0	-10,577	-10,577	0	0	-169,234	-126,925	0	0	0	0	0	0	-317,313
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	0	15,029	15,055	53	53	240,509	180,816	0	0	0	0	0	0	451,515
825-Clearings	0	0	0	0	0	0	-451,514	0	0	0	0	0	0	-451,514
Clr Sum	0	0	0	0	0	0	-451,514	0	0	0	0	0	0	-451,514
Proj Net	0	15,029	15,055	53	53	240,509	-270,698	0	0	0	0	0	0	1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76617515	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	750,000	0	0	0	0	0	0	0	0	0	0	0	0	750,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	17,776	0	0	0	0	0	0	0	0	0	0	0	0	17,776
	928-AFUDC Debt Reg	1,052	0	0	0	0	0	0	0	0	0	0	0	0	1,052
929-AFUDC - Equity Regular		0	0	0	0	0	0	0	0	0	0	0	0	0	0
937-San Juan AR - Other		-317,313	0	0	0	0	0	0	0	0	0	0	0	0	-317,313
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	451,515	0	0	0	0	0	0	0	0	0	0	0	0	451,515
	825-Clearings	-451,514	0	0	0	0	0	0	0	0	0	0	0	0	-451,514
	Clr Sum	-451,514	0	0	0	0	0	0	0	0	0	0	0	0	-451,514

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***Project No: 76617932 Plant Common NERC CIP Change Management System***

Company: 003  
Location: 766 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 09/30/2015

List Interim In-Service Dates

0

Project Need Justification

As an owner and operator of a Bulk Electric System (BES), PNM is required to comply with applicable standards from NERC.

Though control systems strive for reliability and consistency in their operations, changes in procedures, system upgrades, and product designs are unavoidable. The need for robust change control processes is well understood; however, the traditional approach of using paper-based, manual, and ad-hoc processes for change management is often error prone, unreliable, and ultimately unsustainable. An automated and collaborative change management solution that addresses the disparate nature of control systems is a key requirement for managing and controlling change for operational effectiveness

Change Control Management (CCM) is crucial for San Juan Generating Station (SJGS) to maintain compliance and reliability of security. Hardware and software are being purchased to maintain this compliance task. The Change Control Management (CCM) provides a comprehensive solution for the SJGS control system asset base. Automated data collection delivers near real-time visibility providing operational environments with unparalleled visibility into changes that affect system performance, whether unintentional and harmless or potentially malicious.

This involved but was not limited to technical tools to aide in this completion of tasks and approval workflow management.

NERC CIP requires certain security controls in place, checks and balances are required to be in place to meet these requirements (see NERC CIP 003-3 R6, NERC CIP 007-3a, NERC CIP 007-3a).

The cost of the project will include outside labor, software, hardware, and other associated materials required to monitor compliance and engineering logic changes in accordance with NERC CIP standards thus preventing compliance creep mentioned above.

Project Alternatives

Some alternatives in the method of compliance are available, but there are no alternatives to complying with the standard. This specific project was selected because it was deemed the best option available to PNM to comply with NERC standards.

Alternative sets will be considered based on accordance with CIP 010-3 R1 and R2 requirements and existing manual processes for CIP 003-3 R6 and

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017  
existing Engineering Design Change process.

The traditional alternative of using paper-based, manual, and ad-hoc processes for change management is often error prone, unreliable, and ultimately unsustainable.

Stand-alone applications or even manual paper-based systems (or spreadsheets on the computer) have been used to manage various compliance and governance processes at the departmental level. However, as these compliance initiatives become more intertwined with an organization's business requirements, multiple and disparate systems lead to duplicative and tedious manual processes for documentation. This causes significant inefficiency and escalates the risk of non-compliance.

#### Technical Aspects

Purchase, install, and configure software which facilitates compliance with NERC change management standards.

Change Control Management (CCM) automatically notifies you of changes to assets allowing you to focus on system reliability and availability. Change management is a powerful tool for monitoring system configuration settings from Site Acceptance Test (SAT) through Factory Acceptance Test (FAT), through continuous improvement in the organization.

Criteria for the selection of software will be made in accordance with CIP 010-3 R1 and R2 requirements and existing manual processes for CIP 003-3 R6 and existing Engineering Design Change process. This will include but is not limited to controls to monitor and verify approval for the following controls: Operating systems, or firmware where no independent operating system exists, Software installations, Logical network listening ports, Individual User and system/service accounts, Logic changes on critical components that may change the compliance status of SJGS, and Network architecture changes.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76617932	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	142,297		0	0	0	0	0	0	0	0	0	142,297
	370-Outside Services	0		0	0	0	39,000	152,000	12,250	0	0	0	203,250
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	4,272		0	0	0	0	0	0	0	0	0	4,272
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
914-Pension and Benefits Load	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
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	981			0	0	0	0	0	0	0	0	0	981
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	13		0	0	0	0	0	0	0	0	0	13
	926-A and G Loads	3,491		0	0	0	924	3,602	290	0	0	0	8,308
	928-AFUDC Debt Reg	3,186		199	200	202	233	382	512	525	528	0	5,967
929-AFUDC - Equity Regular	4,199			284	286	288	333	546	731	749	754	0	8,170
	937-San Juan AR - Other	-81,121		0	0	0	-16,500	-64,309	-5,183	0	0	0	-167,113
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0
	Cost Sum	77,318		484	487	490	23,990	92,222	8,600	1,274	1,282	0	206,146
	825-Clearings	0		0	0	0	0	0	0	0	-206,146	0	-206,146
	Clr Sum	0		0	0	0	0	0	0	0	-206,146	0	-206,146
Proj Net		77,318		484	487	490	23,990	92,222	8,600	1,274	-204,865	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76617932	Year	2016												
	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	142,297	0	0	0	0	0	0	0	0	0	0	0	0	142,297
	370-Outside Services	203,250	0	0	0	0	0	0	0	0	0	0	0	0	203,250
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	4,272	0	0	0	0	0	0	0	0	0	0	0	0	4,272
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	981	0	0	0	0	0	0	0	0	0	0	0	0	981
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	13	0	0	0	0	0	0	0	0	0	0	0	0	13
	926-A and G Loads	8,308	0	0	0	0	0	0	0	0	0	0	0	0	8,308
	928-AFUDC Debt Reg	5,967	0	0	0	0	0	0	0	0	0	0	0	0	5,967
	929-AFUDC - Equity Regular	8,170	0	0	0	0	0	0	0	0	0	0	0	0	8,170
	937-San Juan AR - Other	-167,113	0	0	0	0	0	0	0	0	0	0	0	0	-167,113
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	206,146	0	0	0	0	0	0	0	0	0	0	0	0	206,146
	825-Clearings	-206,146	0	0	0	0	0	0	0	0	0	0	0	0	-206,146
	Clr Sum	-206,146	0	0	0	0	0	0	0	0	0	0	0	0	-206,146
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76617932	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	142,297	0	0	0	0	0	0	0	0	0	0	0	0	142,297	
370-Outside Services	203,250	0	0	0	0	0	0	0	0	0	0	0	0	203,250	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	4,272	0	0	0	0	0	0	0	0	0	0	0	0	4,272	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	981	0	0	0	0	0	0	0	0	0	0	0	0	981	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	13	0	0	0	0	0	0	0	0	0	0	0	0	13	
926-A and G Loads	8,308	0	0	0	0	0	0	0	0	0	0	0	0	8,308	
928-AFUDC Debt Reg	5,967	0	0	0	0	0	0	0	0	0	0	0	0	5,967	
929-AFUDC - Equity Regular	8,170	0	0	0	0	0	0	0	0	0	0	0	0	8,170	
937-San Juan AR - Other	-167,113	0	0	0	0	0	0	0	0	0	0	0	0	-167,113	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	206,146	0	0	0	0	0	0	0	0	0	0	0	0	206,146	
825-Clearings	-206,146	0	0	0	0	0	0	0	0	0	0	0	0	-206,146	
Clr Sum	-206,146	0	0	0	0	0	0	0	0	0	0	0	0	-206,146	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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***Project No: 76628039 Plant Common CAG Test Lab Equipment NERC***

Company: 003  
Location: 766 San Juan

**Project Information**

Construction Start Date 4/1/2014 Estimated Completion Date 6/30/2015

List Interim In-Service Dates  
0

Project Need Justification

As an owner and operator of a Bulk Electric System (BES), PNM is required to comply with applicable standards from NERC.

NERC CIP Version's 3 (CIP 007-3A R1) and 5 (CIP 0010-3 R1) standards require that all configuration changes be tested in a test lab environment prior to being deployed into a production system. Maintaining an updated lab environment reflective of the production system will reduce the potential for violations and allow for more reliable operation when the designs are tested prior to deployment. This can allow for issues to be brought to the forefront prior to being caught within production. The testing and design of new systems, and resolving issues can be tested within this test environment to avoid active testing within a production environment that may adversely impact the reliable operation of generation.

The cost of the project includes materials, software, internal labor for installation and troubleshooting, project management, general and administrative loads and AFUDC.

Project Alternatives

There are no alternatives to this project. It is a compliance requirement.

An alternate means of compliance is to maintain current equipment with no additional room for test equipment hardware failures, software version changes, or air conditioning upgrades or maintenance. This would allow for current as-is testing; however, no new equipment testing could be performed or rolled out while meeting NERC requirements, and potentially reliability issues while having to test in the production environment. This option does not provide the operational flexibility necessary to properly maintain a power plant.

Technical Aspects

Add materials, software, instruments, devices, controllers, servers and other equipment to the test lab to be used for training, debugging and testing prior to deploying equipment, configurations, software and systems on the production control network. This insures a reliable tested setup prior to production rollout.

This will include: Lab Environmental monitoring, Schneider Electric (formerly Foxboro) hardware and software, PLC/PAC (Programmable Logic Controller/Programmable Automation Controller) hardware and software, Network devices including switches, routers, firewalls, and cabling, Labeling

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

equipment, Cable management equipment, Furniture, HVAC equipment and installation, Storage facilities for staging and lifecycle replacement

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Cost Year 01

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76628039	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	743	0	0	0	0	0	0	0	0	0	0	0	0	743
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	138,404	0	0	0	0	0	0	0	0	0	0	0	0	138,404
	370-Outside Services	59,864	0	0	0	0	0	0	0	0	0	0	0	0	59,864
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	55
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	2,531	1	1	1	1	1	1	1	1	1	1	1	1	2,543
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	50
	914-Pension and Benefits Load	212	0	0	0	0	0	0	0	0	0	0	0	0	212
	915-Injuries and Damages Load	18	0	0	0	0	0	0	0	0	0	0	0	0	18
	918-San Juan AR-Labor	-423	0	0	0	0	0	0	0	0	0	0	0	0	-423
	921-Stores / Purchasing Load	1,041	0	0	0	0	0	0	0	0	0	0	0	0	1,041
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	2,920	0	0	0	0	0	0	0	0	0	0	0	0	2,920
	926-A and G Loads	4,718	0	0	0	0	0	0	0	0	0	0	0	0	4,718
	928-AFUDC Debt Reg	1,224	0	0	0	0	0	0	0	0	0	0	0	0	1,224
	929-AFUDC - Equity Regular	1,770	0	0	0	0	0	0	0	0	0	0	0	0	1,770
	937-San Juan AR - Other	-88,119	0	0	0	0	0	0	0	0	0	0	0	0	-88,119
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	125,008	1	1	1	1	1	1	1	1	1	1	1	1	125,020
	825-Clearings	-124,726	0	0	0	0	0	0	0	0	0	0	0	0	-124,726
	Clr Sum	-124,726	0	0	0	0	0	0	0	0	0	0	0	0	-124,726
	Proj Net	282	1	1	1	1	1	1	1	1	1	1	1	1	294

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project 76628039	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	743	0	0	0	0	0	0	0	0	0	0	0	0	743
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	138,404	0	0	0	0	0	0	0	0	0	0	0	0	138,404
370-Outside Services	59,864	0	0	0	0	0	0	0	0	0	0	0	0	59,864
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	55
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	2,543	2	2	0	0	0	0	0	0	0	0	0	0	2,547
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	50
914-Pension and Benefits Load	212	0	0	0	0	0	0	0	0	0	0	0	0	212
915-Injuries and Damages Load	18	0	0	0	0	0	0	0	0	0	0	0	0	18
918-San Juan AR-Labor	-423	0	0	0	0	0	0	0	0	0	0	0	0	-423
921-Stores / Purchasing Load	1,041	0	0	0	0	0	0	0	0	0	0	0	0	1,041
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	2,920	0	0	0	0	0	0	0	0	0	0	0	0	2,920
926-A and G Loads	4,718	0	0	0	0	0	0	0	0	0	0	0	0	4,718
928-AFUDC Debt Reg	1,224	0	0	0	0	0	0	0	0	0	0	0	0	1,224
929-AFUDC - Equity Regular	1,770	0	0	0	0	0	0	0	0	0	0	0	0	1,770
937-San Juan AR - Other	-88,119	0	0	0	0	0	0	0	0	0	0	0	0	-88,119
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	125,020	2	2	0	0	0	0	0	0	0	0	0	0	125,024
825-Clearings	-124,726	0	0	0	0	0	0	0	0	0	0	0	0	-124,726
Clr Sum	-124,726	0	0	0	0	0	0	0	0	0	0	0	0	-124,726
Proj Net	294	2	2	0	0	0	0	0	0	0	0	0	0	298

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76628415 Common NERC Add Vulnerability Module to SIEM***

Company: 003  
Location: 766 San Juan

**Project Information**

Construction Start Date 4/1/2016 Estimated Completion Date 10/30/2016

List Interim In-Service Dates

0

Project Need Justification

As an owner and operator of a Bulk Electric System (BES), PNM is required to comply with applicable standards from NERC.

NERC requires BES operators to monitor computer networks for potential intruder activity. Security information and event management (SIEM) is a term for software/hardware products and services combining security information management (SIM) and security event management (SEM). SIEM technology provides real-time analysis of security alerts generated by network hardware and applications. SIEM is sold as software, appliances, and are also used to log security data and generate reports for compliance purposes. Dedicated hardware is utilized within this process that was already previously purchased and utilized to maintain logs and security within the control system.

This module aides in meeting the following NERC Standards: NERC CIP Standard 007-3A R6 (Version 3), NERC CIP CIP-007-7 (Version 5 Medium Impact BES Cyber System), CIP-003-7 Attachment 1 (Version 5).

The SIEM provides an aggregated Log management of data from many sources, including network, security, servers, databases, applications, providing the ability to consolidate monitored data to help avoid missing crucial events.

Vulnerability module provides an add-on that extends the SIEM to allow for more detailed forensic analysis to the existing SIEM in place and utilized within San Juan Generating Station.

Project funds are to cover the expense of the software module which will aide in the forensic analysis, specifically, the ability to search across logs on different nodes and time periods based on specific criteria and to aggregate log information and to prevent searching through thousands and thousands of logs for possible vulnerabilities being exploited.

Project Alternatives

There are no alternatives to this project. It is a compliance requirement.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

This option was chosen due to the fact that we already have and use an existing SIEM product, and this module addition is far less costly than implementing a new SIEM product.

Technical Aspects

To aide in the forensic analysis, specifically, the ability to search across logs on different nodes and time periods based on specific criteria and to



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76628415	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 76628415	Year	2016												
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	50,000	50,000	50,000	50,000	50,000	50,000	0	0	0	300,000
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	1,185	1,185	1,185	1,185	1,185	1,185	0	0	0	7,110
928-AFUDC Debt Reg	0	0	0	0	26	79	132	184	237	290	0	0	0	948
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	-21,154	-21,154	-21,154	-21,154	-21,154	-21,154	0	0	0	-126,924
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	30,057	30,110	30,163	30,215	30,268	30,321	0	0	0	181,134
825-Clearings	0	0	0	0	0	0	0	0	0	-181,133	0	0	0	-181,133
Clr Sum	0	0	0	0	0	0	0	0	0	-181,133	0	0	0	-181,133
Proj Net	0	0	0	0	30,057	30,110	30,163	30,215	30,268	-150,812	0	0	0	1

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76628415	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	300,000	0	0	0	0	0	0	0	0	0	0	0	0	300,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	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	7,110	0	0	0	0	0	0	0	0	0	0	0	0	7,110
	928-AFUDC Debt Reg	948	0	0	0	0	0	0	0	0	0	0	0	0	948
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-126,924	0	0	0	0	0	0	0	0	0	0	0	0	-126,924
	961-Luna A&G PNM D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	181,134	0	0	0	0	0	0	0	0	0	0	0	0	181,134
	825-Clearings	-181,133	0	0	0	0	0	0	0	0	0	0	0	0	-181,133
	Clr Sum	-181,133	0	0	0	0	0	0	0	0	0	0	0	0	-181,133
Proj Net		1	0	0	0	0	0	0	0	0	0	0	0	0	1

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***Project No: 76628634 Plant Common Foxboro Series 100 I/O and CP Replacement - Limestone***

Company: 003  
Location: 766 San Juan

Project Information

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

List Interim In-Service Dates NA

Project Need Justification

The Foxboro Series 100 I/O within Limestone Preparation Area is reaching the end of life. This means the manufacturer is no longer producing spare parts and once the inventory on hand is depleted no parts will be available. The Limestone Preparation area provides limestone for the SO2 Removal Process. Foxboro maintains a continuously current philosophy for control networks. This philosophy promises to protect the initial investment. This process allows for 85% of the initial investment to be kept intact and the Foxboro I/A Series system continuously infuses with the latest technology, maintaining interoperability with earlier generations. The 100 series FBM upgraded solution supports this philosophy, providing a cost-effective upgrade path to the I/A Series system's latest fieldbus modules- the 200 Series FBM product line. The new 200 series FBM rack-mounted inserts to plug-in directly to the existing 100 series cells. This plug-in approach significantly reduces downtime by preserving existing infrastructure and field wiring-minimizing the cost, risk and process impact to plant operations. The cost of the project includes materials, internal labor for installation, project management, general and administrative loads and AFUDC.

This project is included in the test period projected balances for CWIP related to generation, transmission, distribution, and general and intangible plant as of September 30, 2016 that are projected to be in service within five months after the end of the test period.

Pursuant to NMSA 1978, § 62-6-14(E), a utility is allowed to request to include in rate base CWIP for projects that are projected to be in service the lesser of five months after the end of the test period or 24 months after the end of the base period. PNM is requesting the inclusion of CWIP balances for projects such as this one with a projected in-service date by February 2017.

Project Alternatives

The alternative to this investment is to replace the DCS system with significantly more investment required for hardware and engineering. It is estimated that this alternative would be a project with a multi-million dollar investment requiring multi- year engineering efforts.

Technical Aspects

Replace existing obsolete controls Input/Output (I/O) modules with state of the art electronic devices/O Modules.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76628634	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76628634	Year	2016											
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	15,500	20,320	20,320	20,320	20,320	20,320	20,320	20,320	20,320	20,320	0	0	198,380
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	22	68	130	180	258	304	371	429	472	546	0	0	2,780
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	367	482	482	482	482	482	482	482	482	482	0	0	4,705
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	-6,558	-8,597	-8,597	-8,597	-8,597	-8,597	-8,597	-8,597	-8,597	-8,597	0	0	-83,931
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	0	9,331	12,273	12,335	12,385	12,463	12,509	12,576	12,634	12,677	12,751	0	0	121,934
825-Clearings	0	0	0	0	0	0	0	0	0	0	-121,931	0	0	-121,931
Clr Sum	0	0	0	0	0	0	0	0	0	0	-121,931	0	0	-121,931
Proj Net	0	9,331	12,273	12,335	12,385	12,463	12,509	12,576	12,634	12,677	-109,180	0	0	3

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project 76628634	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	198,380	0	0	0	0	0	0	0	0	0	0	0	0	198,380
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	2,780	0	0	0	0	0	0	0	0	0	0	0	0	2,780
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	4,705	0	0	0	0	0	0	0	0	0	0	0	0	4,705
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	-83,931	0	0	0	0	0	0	0	0	0	0	0	0	-83,931
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	121,934	0	0	0	0	0	0	0	0	0	0	0	0	121,934
825-Clearings	-121,931	0	0	0	0	0	0	0	0	0	0	0	0	-121,931
Clr Sum	-121,931	0	0	0	0	0	0	0	0	0	0	0	0	-121,931
Proj Net	3	0	0	0	0	0	0	0	0	0	0	0	0	3

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***Project No: 77916136 RELAYS AND METERS - 2016***

Company: 003  
Location: 779 San Juan

Project Information

Construction Start Date 8/15/2015 Estimated Completion Date 12/31/2016

List Interim In-Service Dates

0

Project Need Justification

This project addresses equipment obsolescence issues, assures ongoing system protection reliability, improves data accuracy, and reduces maintenance costs going forward. Protective relay technology has advanced from electromechanical devices to microprocessor devices. Electromechanical relays are becoming obsolete, with few skilled technicians still available with familiarity or testing requirements and methods. Metering devices can drift over time resulting in erroneous or conflicting data. This project replaces those devices which can no longer perform as designed. The cost of the project includes engineering, materials, internal and external labor, project management, general and administrative loads and AFUDC.

This project is included in the test period projected balances for CWIP related to generation, transmission, distribution, and general and intangible plant as of September 30, 2016 that are projected to be in service within five months after the end of the test period.

Pursuant to NMSA 1978, § 62-6-14(E), a utility is allowed to request to include in rate base CWIP for projects that are projected to be in service the lesser of five months after the end of the test period or 24 months after the end of the base period. PNM is requesting the inclusion of CWIP balances for projects such as this one with a projected in-service date by February 2017.

Project Alternatives

The existing electromechanical relays could continue to be maintained, however, the task will become increasingly difficult as parts and technicians with applicable skills become less available. This alternative is to utilize existing equipment until failure. However, the unplanned failure can result in loss of transmission service, possible loss of generation and under some system scenarios load shedding. The "as is" alternative is not viable. Another option to perform replacement in kind does not offer the benefits of longer testing intervals and use of current standard technology. This coupled with the growing scarcity of spare parts and availability of qualified technicians makes this alternative not viable. The option chose to develop a prioritized schedule and replace the relays with more advanced equipment is the best option.

Technical Aspects

This project will be conducted by evaluating relays and meters to identify their current performance and establishing a prioritized schedule for replacement based on device history, scheduled outages, and current performance. This project is part of a multiyear program to replace switchyard electromechanical relays with microprocessor relays and to replace metering devices as needed.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	77916136	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	77916136	Year	2016											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	8,000	0	0	0	0	0	0	0	0	0	0	0	8,000
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	210,000	0	0	0	0	0	0	0	0	0	0	0	210,000
370-Outside Services	0	42,000	0	0	0	0	0	0	0	0	0	0	0	42,000
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	539	0	0	0	0	0	0	0	0	0	0	0	539
914-Pension and Benefits Load	0	2,437	0	0	0	0	0	0	0	0	0	0	0	2,437
915-Injuries and Damages Load	0	394	0	0	0	0	0	0	0	0	0	0	0	394
918-San Juan AR-Labor	0	-5,685	0	0	0	0	0	0	0	0	0	0	0	-5,685
921-Stores / Purchasing Load	0	15,057	0	0	0	0	0	0	0	0	0	0	0	15,057
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	6,162	0	0	0	0	0	0	0	0	0	0	0	6,162
928-AFUDC Debt Reg	0	125	249	250	250	251	251	251	252	252	253	253	254	2,891
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
937-San Juan AR - Other	0	-136,610	0	0	0	0	0	0	0	0	0	0	0	-136,610
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	0	142,419	249	250	250	251	251	251	252	252	253	253	254	145,185
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	0	-145,184	-145,184
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	0	-145,184	-145,184
Proj Net	0	142,419	249	250	250	251	251	251	252	252	253	253	-144,930	1

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	77916136	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	8,000	0	0	0	0	0	0	0	0	0	0	0	0	8,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	210,000	0	0	0	0	0	0	0	0	0	0	0	0	210,000
	370-Outside Services	42,000	0	0	0	0	0	0	0	0	0	0	0	0	42,000
	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	539	0	0	0	0	0	0	0	0	0	0	0	0	539
	914-Pension and Benefits Load	2,437	0	0	0	0	0	0	0	0	0	0	0	0	2,437
	915-Injuries and Damages Load	394	0	0	0	0	0	0	0	0	0	0	0	0	394
	918-San Juan AR-Labor	-5,685	0	0	0	0	0	0	0	0	0	0	0	0	-5,685
	921-Stores / Purchasing Load	15,057	0	0	0	0	0	0	0	0	0	0	0	0	15,057
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	6,162	0	0	0	0	0	0	0	0	0	0	0	0	6,162
	928-AFUDC Debt Reg	2,891	0	0	0	0	0	0	0	0	0	0	0	0	2,891
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-136,610	0	0	0	0	0	0	0	0	0	0	0	0	-136,610
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	145,185	0	0	0	0	0	0	0	0	0	0	0	0	145,185
	825-Clearings	-145,184	0	0	0	0	0	0	0	0	0	0	0	0	-145,184
	Clr Sum	-145,184	0	0	0	0	0	0	0	0	0	0	0	0	-145,184
Proj Net		1	0	0	0	0	0	0	0	0	0	0	0	0	1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 77917223 SJ Swyd Breakers-2013***

Company: 003  
Location: 779 San Juan

Project Information

Construction Start Date 8/15/2015 Estimated Completion Date 09/30/2015

List Interim In-Service Dates

Project Need Justification

PNM has undertaken a systematic program to replace aging 345kV circuit breakers in the San Juan switchyard. Replacement of breakers may be needed due to any/all of the following: poor performance, maintenance history, lack of available repair parts, or industry obsolescence.

The cost of the project includes engineering, materials, internal and external labor, project management, general and administrative loads and AFUDC.

Project Alternatives

The existing circuit breakers could continue to be operated and maintained. However, the likelihood of breaker failure increases with age. The configuration of the switchyard is such that breaker failure can cause another element such as a transmission line or generation unit to trip offline. These consequences are unacceptable and therefore the continued operation and maintenance alternative is not considered viable.

Technical Aspects

Evaluate circuit breakers for current performance and establish a prioritized schedule for replacement based on equipment history, scheduled outages, and current performance. This project is part of an on-going multi-year program to replace breakers.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	77917223	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,101		0	0	0	0	0	0	0	0	0	1,101
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	269,546		0	0	0	0	0	0	0	0	0	269,546
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	98		0	0	0	0	0	0	0	0	0	98
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	74		0	0	0	0	0	0	0	0	0	74
	914-Pension and Benefits Load	314		0	0	0	0	0	0	0	0	0	314
	915-Injuries and Damages Load	27		0	0	0	0	0	0	0	0	0	27
	918-San Juan AR-Labor	-758		0	0	0	0	0	0	0	0	0	-758
	921-Stores / Purchasing Load	1,827		0	0	0	0	0	0	0	0	0	1,827
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	718		0	0	0	0	0	0	0	0	0	718
	926-A and G Loads	6,414		0	0	0	0	0	0	0	0	0	6,414
	928-AFUDC Debt Reg	3,886		0	0	0	0	0	0	0	0	0	3,886
	929-AFUDC - Equity Regular	5,132		0	0	0	0	0	0	0	0	0	5,132
	937-San Juan AR - Other	-139,301		0	0	0	0	0	0	0	0	0	-139,301
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	149,078		0	0	0	0	0	0	0	0	0	149,078
	825-Clearings	0		-149,078	0	0	0	0	0	0	0	0	-149,078
	Clr Sum	0		-149,078	0	0	0	0	0	0	0	0	-149,078
	Proj Net	149,078		-149,078	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 77917223	Year	2016												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	1,101	0	0	0	0	0	0	0	0	0	0	0	0	1,101
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	269,546	0	0	0	0	0	0	0	0	0	0	0	0	269,546
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	98	0	0	0	0	0	0	0	0	0	0	0	0	98
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	74	0	0	0	0	0	0	0	0	0	0	0	0	74
914-Pension and Benefits Load	314	0	0	0	0	0	0	0	0	0	0	0	0	314
915-Injuries and Damages Load	27	0	0	0	0	0	0	0	0	0	0	0	0	27
918-San Juan AR-Labor	-758	0	0	0	0	0	0	0	0	0	0	0	0	-758
921-Stores / Purchasing Load	1,827	0	0	0	0	0	0	0	0	0	0	0	0	1,827
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	718	0	0	0	0	0	0	0	0	0	0	0	0	718
926-A and G Loads	6,414	0	0	0	0	0	0	0	0	0	0	0	0	6,414
928-AFUDC Debt Reg	3,886	0	0	0	0	0	0	0	0	0	0	0	0	3,886
929-AFUDC - Equity Regular	5,132	0	0	0	0	0	0	0	0	0	0	0	0	5,132
937-San Juan AR - Other	-139,301	0	0	0	0	0	0	0	0	0	0	0	0	-139,301
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	149,078	0	0	0	0	0	0	0	0	0	0	0	0	149,078
825-Clearings	-149,078	0	0	0	0	0	0	0	0	0	0	0	0	-149,078
Clr Sum	-149,078	0	0	0	0	0	0	0	0	0	0	0	0	-149,078
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	77917223	Year	2017											
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	1,101	0	0	0	0	0	0	0	0	0	0	0	0	1,101
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	269,546	0	0	0	0	0	0	0	0	0	0	0	0	269,546
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	98	0	0	0	0	0	0	0	0	0	0	0	0	98
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	74	0	0	0	0	0	0	0	0	0	0	0	0	74
914-Pension and Benefits Load	314	0	0	0	0	0	0	0	0	0	0	0	0	314
915-Injuries and Damages Load	27	0	0	0	0	0	0	0	0	0	0	0	0	27
918-San Juan AR-Labor	-758	0	0	0	0	0	0	0	0	0	0	0	0	-758
921-Stores / Purchasing Load	1,827	0	0	0	0	0	0	0	0	0	0	0	0	1,827
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	718	0	0	0	0	0	0	0	0	0	0	0	0	718
926-A and G Loads	6,414	0	0	0	0	0	0	0	0	0	0	0	0	6,414
928-AFUDC Debt Reg	3,886	0	0	0	0	0	0	0	0	0	0	0	0	3,886
929-AFUDC - Equity Regular	5,132	0	0	0	0	0	0	0	0	0	0	0	0	5,132
937-San Juan AR - Other	-139,301	0	0	0	0	0	0	0	0	0	0	0	0	-139,301
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	149,078	0	0	0	0	0	0	0	0	0	0	0	0	149,078
825-Clearings	-149,078	0	0	0	0	0	0	0	0	0	0	0	0	-149,078
Clr Sum	-149,078	0	0	0	0	0	0	0	0	0	0	0	0	-149,078
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tier 3 Generation Capital Projects

# PNM Exhibit CMO-4

Is contained in the following 217 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"

Monday, August 17, 2015

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Project No:76116335 Unit 1 Platforms - 2016 .....	\$51,275 .....	\$0 .....	\$51,275.....	68
Project No:76116415 Unit 1 Economizer CO Controls .....	\$41,092 .....	\$0 .....	\$41,092.....	72
Project No:76116512 SJ U1 Acoustic Leak Detection System Installation .....	\$90,922 .....	\$0 .....	\$90,922.....	76
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Project No:76117746 Unit 1 Demister Pad Replacement .....	(\$13,505) .....	\$0 .....	(\$13,505).....	88
Project No:76117747 Unit 1 Relay Protection-2015 .....	\$97,152 .....	\$0 .....	\$97,152.....	92
Project No:76117914 Unit 1 Expansion Joint Replacement - 2015 .....	(\$48,429) .....	\$0 .....	(\$48,429).....	96
Project No:76117934 Unit 1 Absorber Recirc Isolation Valve Install .....	(\$51,170) .....	\$0 .....	(\$51,170)....	100
Project No:76316132 DEWATERING BIN STIFFENING .....	\$19,711 .....	\$0 .....	\$19,711....	104
Project No:76416012 Unit 4 Automatic Voltage Regulator Replacement .....	\$2 .....	\$0 .....	\$2....	108
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Project No:76416119 Unit 4 DCS Control Logic Modifications - 2015 .....	\$43 .....	\$0 .....	\$43....	117
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Project No:76416715 Unit 4 Economizer CO Controls .....	\$59,565 .....	\$0 .....	\$59,565....	125
Project No:76417215 Unit 4 Electrostatic Precipitator Bypass Duct .....	\$90,909 .....	\$0 .....	\$90,909....	129

Project No:76417415 Unit 4 Absorber Polishing Sieve Tray .....	\$38,316 .....	\$0 .....	\$38,316....	133
Project No:76516034 Units 1&2 Pulverizer Mill CO2 Inerting .....	\$70,703 .....	\$0 .....	\$70,703....	138
Project No:76616036 Plant Common Protection Relay Replacement - 2016 .....	\$0 .....	\$42,749 .....	\$42,749....	142
Project No:76616046 Plant Common Fiber Optic Cable Between PSPS NERC .....	\$41,531 .....	\$0 .....	\$41,531....	147
Project No:76616054 Plant Common Roof Refurbishment - 2015 .....	\$5,093 .....	\$0 .....	\$5,093....	151
Project No:76616115 Common Cathodic Protection System .....	\$52,721 .....	\$0 .....	\$52,721....	155
Project No:76616436 Plant Common 4A Fluid Drive Replacement .....	\$70,186 .....	\$0 .....	\$70,186....	160
Project No:76616536 Plant Common Administration Building HVAC Controls .....	\$78,612 .....	\$0 .....	\$78,612....	165
Project No:76616815 Common NERC Test Lab Equipment .....	\$72,263 .....	\$0 .....	\$72,263....	169
Project No:76616915 Common Oxidation Blower Backup Power .....	\$90,657 .....	\$0 .....	\$90,657....	173
Project No:76617015 Common Oxidation Blower Separate PLC Control .....	\$60,209 .....	\$0 .....	\$60,209....	177
Project No:76628036 Plant Common Foxboro I/O and CP Replacement - Coal Handling .....	\$0 .....	\$59,439 .....	\$59,439....	181
Project No:76628042 Plant Common AB/RS View Hardware/Licensing (Virtualization) NERC .....	\$72,887 .....	\$0 .....	\$72,887....	185
Project No:76628044 Plant Common Multifactor Authentication NERC .....	\$80,313 .....	\$0 .....	\$80,313....	189
Project No:76628047 Foxboro I/A Version 8.8 Limestone / Coal NERC .....	\$52,832 .....	\$0 .....	\$52,832....	193
Project No:76628215 Common NERC Malware Scanning KIOSK .....	\$36,100 .....	\$0 .....	\$36,100....	198
Project No:76628515 Common Connect CEM NETDAHS to PI Historian .....	\$90,329 .....	\$0 .....	\$90,329....	202
Project No:76634015 Common Core Switch Replacement .....	\$56,458 .....	\$0 .....	\$56,458....	206
Project No:76717913 UNITS 3&4 AUXILIARY COOLING TOWER PLENUM STRUCTUR .....	\$9,472 .....	\$0 .....	\$9,472....	210
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Totals for Report.....	\$1,831,211.....	\$201,464.....	\$2,032,675	

**Lordsburg**

***Project No: 70316015 Lordsburg Capital Improvements 2015***

Company: 003  
Location: 703 Lordsburg

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 10/30/2015

List Interim In-Service Dates

It is anticipated that the DC battery replacement under this Project Fund will be completed and In Service prior to December 31, 2015.

Project Need Justification

This project entails a single capital improvement project at Lordsburg in 2015. The project is to replace the existing DC battery bank used to provide backup power to the essential control systems and internal power loads in the event of a separation of the plant from the grid. It was recently discovered that the existing battery bank is not performing to the minimum requirements for compliance with NERC PRC-005 "Protection System Maintenance". Timely replacement of the battery bank is required to ensure that the system will function correctly in the event of a "black plant" event.

The DC power systems are vital for protection of the plant and the bulk electric system. Because the existing battery bank has been determined to be functioning at a less than required levels, it must be replaced.

Project Alternatives

Replacement alternatives from a number of battery suppliers will be evaluated against each other to balance cost and expected effectiveness at addressing this emergent need.

Technical Aspects

The capital improvement project funded under this project will be properly evaluated and engineered to effectively address the emergent need in a cost effective manner. The only capital improvement project to be completed in 2015 is a DC battery bank replacement.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	70316015	Year	2015										
Cost_Type	Bal 3/31/15			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
120-Overtime-General	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
370-Outside Services	0			50,000	0	0	0	0	0	0	0	0	50,000
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	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
914-Pension and Benefits Load	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
918-San Juan AR-Labor	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
922-Minor Material Load	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
926-A and G Loads	0			4,160	0	0	0	0	0	0	0	0	4,160
928-AFUDC Debt Reg	0			70	140	0	0	0	0	0	0	0	210
929-AFUDC - Equity Regular	0			100	200	0	0	0	0	0	0	0	300
937-San Juan AR - Other	0			0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0
Cost Sum	0			54,329	340	0	0	0	0	0	0	0	54,669
825-Clearings	0			0	-54,669	0	0	0	0	0	0	0	-54,669
Clr Sum	0			0	-54,669	0	0	0	0	0	0	0	-54,669
Proj Net	0			54,329	-54,329	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 70316015	Year	2016													
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	50,000	0	0	0	0	0	0	0	0	0	0	0	0	50,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	4,160	0	0	0	0	0	0	0	0	0	0	0	0	4,160	
928-AFUDC Debt Reg	210	0	0	0	0	0	0	0	0	0	0	0	0	210	
929-AFUDC - Equity Regular	300	0	0	0	0	0	0	0	0	0	0	0	0	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	54,669	0	0	0	0	0	0	0	0	0	0	0	0	54,669	
825-Clearings	-54,669	0	0	0	0	0	0	0	0	0	0	0	0	-54,669	
Clr Sum	-54,669	0	0	0	0	0	0	0	0	0	0	0	0	-54,669	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	70316015	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	50,000	0	0	0	0	0	0	0	0	0	0	0	0	50,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	4,160	0	0	0	0	0	0	0	0	0	0	0	0	4,160
	928-AFUDC Debt Reg	210	0	0	0	0	0	0	0	0	0	0	0	0	210
	929-AFUDC - Equity Regular	300	0	0	0	0	0	0	0	0	0	0	0	0	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	54,669	0	0	0	0	0	0	0	0	0	0	0	0	54,669
	825-Clearings	-54,669	0	0	0	0	0	0	0	0	0	0	0	0	-54,669
	Clr Sum	-54,669	0	0	0	0	0	0	0	0	0	0	0	0	-54,669
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0



**Reeves**

***Project No: 71316315 Reeves U3 Boiler Door Upgrade***

Company: 003  
Location: 713 Reeves

**Project Information**

Construction Start Date 3/23/2015 Estimated Completion Date 6/30/2015

List Interim In-Service Dates

Project Need Justification

Reeves U3 Boiler access door is failing. The door no longer provides a proper seal to the boiler. The door needs to be replaced. In addition, tubes may need to be modified to accommodate the new door. An upgraded door will be purchase and installed during the upcoming U3 outage. The boiler access door is required for entry into the boiler to make tube inspections and repairs when the unit is offline.

Project Alternatives

Do nothing option is not a feasible approach. The recommended option is the most cost effective option. The door to be provided must be provided by the original boiler manufacturer in order to be compatible with the boiler's temperature and pressure ratings.

Technical Aspects

The boiler access door is required for entry into the boiler to make tube inspections and repairs when the unit is offline. An upgrade door and required boiler tubes will be purchased from the vendor. A contractor will remove the damaged door and replace it with a new upgrade door during the upcoming spring outage. New tubes may need to be installed to accommodate the new door because the door opening may have warped so the tubes around the opening may need to be replaced. The condition of the opening can only be determined when the old door is removed.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	71316315	Year	2015									
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	1,050	1,802	0	0	0	0	0	0	2,852
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	24,355	0	0	0	0	0	0	0	0	24,355
	370-Outside Services	0	0	5,032	10,496	0	0	0	0	0	0	15,528
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	71	121	0	0	0	0	0	0	192
	914-Pension and Benefits Load	0	0	320	549	0	0	0	0	0	0	869
	915-Injuries and Damages Load	0	0	52	89	0	0	0	0	0	0	140
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0	2,026	506	1,023	0	0	0	0	0	0	3,556
	928-AFUDC Debt Reg	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
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	26,381	7,030	14,080	0	0	0	0	0	0	47,492
	825-Clearings	0	0	0	0	-47,492	0	0	0	0	0	-47,492
	Clr Sum	0	0	0	0	-47,492	0	0	0	0	0	-47,492
	Proj Net	0	26,381	7,030	14,080	-47,492	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	71316315	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,852	0	0	0	0	0	0	0	0	0	0	0	0	2,852
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	24,355	0	0	0	0	0	0	0	0	0	0	0	0	24,355
	370-Outside Services	15,528	0	0	0	0	0	0	0	0	0	0	0	0	15,528
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	192	0	0	0	0	0	0	0	0	0	0	0	0	192
	914-Pension and Benefits Load	869	0	0	0	0	0	0	0	0	0	0	0	0	869
	915-Injuries and Damages Load	140	0	0	0	0	0	0	0	0	0	0	0	0	140
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	3,556	0	0	0	0	0	0	0	0	0	0	0	0	3,556
	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	47,492	0	0	0	0	0	0	0	0	0	0	0	0	47,492
	825-Clearings	-47,492	0	0	0	0	0	0	0	0	0	0	0	0	-47,492
	Clr Sum	-47,492	0	0	0	0	0	0	0	0	0	0	0	0	-47,492
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	71316315	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,852	0	0	0	0	0	0	0	0	0	0	0	0	2,852
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	24,355	0	0	0	0	0	0	0	0	0	0	0	0	24,355
	370-Outside Services	15,528	0	0	0	0	0	0	0	0	0	0	0	0	15,528
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	192	0	0	0	0	0	0	0	0	0	0	0	0	192
	914-Pension and Benefits Load	869	0	0	0	0	0	0	0	0	0	0	0	0	869
	915-Injuries and Damages Load	140	0	0	0	0	0	0	0	0	0	0	0	0	140
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	3,556	0	0	0	0	0	0	0	0	0	0	0	0	3,556
	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	47,492	0	0	0	0	0	0	0	0	0	0	0	0	47,492
	825-Clearings	-47,492	0	0	0	0	0	0	0	0	0	0	0	0	-47,492
	Clr Sum	-47,492	0	0	0	0	0	0	0	0	0	0	0	0	-47,492
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

***Project No: 71316415 Reeves Blow Down to Pond Metering Upgrade***

Company: 003  
Location: 713 Reeves

Project Information

Construction Start Date 8/1/2015 Estimated Completion Date 10/30/2015

List Interim In-Service Dates

Project Need Justification

The original ultrasonic sensor was damaged during a rain storm. The flow sensor is a compliance requirement and replacement is needed to accurately measure the flow of water to the evaporation pond. A radar sensor was chosen for installation to replace the damaged ultra-sonic sensor due to improved accuracy. The radar sensor has increased precision over the ultra-sonic sensor currently installed. Error in measurement will be reduced from +/- 24.5% to +/- 1.9% by replacing with a radar system. This increased accuracy will allow for more accurate readings of water flowing to the evaporation pond. In addition an enclosure will be installed to protect the flow sensor from future weather damage.

Project Alternatives

The do nothing option is not feasible. The two options that were evaluated were the ultra-sonic and radar flow measurement options. The radar sensor was selected because it has increased precision over the ultra-sonic sensor currently installed. This increased accuracy will allow for more accurate readings of water flowing to the evaporation pond.

Technical Aspects

The flow sensor is a compliance requirement and replacement is needed to accurately measure the flow of water to the evaporation pond. The flow sensor will be purchased from the vendor. A contractor will fabricate the enclosure and PNM personnel will install and calibrate the flow sensor.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	71316415	Year	2015										
Cost_Type	Bal 3/31/15			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0			0	0	0	1,500	1,500	0	0	0	0	3,000
120-Overtime-General	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
370-Outside Services	0			0	0	0	15,000	49,409	0	0	0	0	64,409
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0			0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	0			0	0	0	101	101	0	0	0	0	202
914-Pension and Benefits Load	0			0	0	0	457	457	0	0	0	0	914
915-Injuries and Damages Load	0			0	0	0	74	74	0	0	0	0	148
918-San Juan AR-Labor	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
922-Minor Material Load	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
926-A and G Loads	0			0	0	0	1,373	4,236	0	0	0	0	5,608
928-AFUDC Debt Reg	0			0	0	0	24	120	192	0	0	0	336
929-AFUDC - Equity Regular	0			0	0	0	34	171	275	0	0	0	480
937-San Juan AR - Other	0			0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0
Cost Sum	0			0	0	0	18,562	56,067	467	0	0	0	75,096
825-Clearings	0			0	0	0	0	0	-75,096	0	0	0	-75,096
Clr Sum	0			0	0	0	0	0	-75,096	0	0	0	-75,096
Proj Net	0			0	0	0	18,562	56,067	-74,630	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	71316415	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,000	0	0	0	0	0	0	0	0	0	0	0	0	3,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	64,409	0	0	0	0	0	0	0	0	0	0	0	0	64,409
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	202	0	0	0	0	0	0	0	0	0	0	0	0	202
	914-Pension and Benefits Load	914	0	0	0	0	0	0	0	0	0	0	0	0	914
	915-Injuries and Damages Load	148	0	0	0	0	0	0	0	0	0	0	0	0	148
	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	5,608	0	0	0	0	0	0	0	0	0	0	0	0	5,608
	928-AFUDC Debt Reg	336	0	0	0	0	0	0	0	0	0	0	0	0	336
	929-AFUDC - Equity Regular	480	0	0	0	0	0	0	0	0	0	0	0	0	480
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	75,096	0	0	0	0	0	0	0	0	0	0	0	0	75,096
	825-Clearings	-75,096	0	0	0	0	0	0	0	0	0	0	0	0	-75,096
	Clr Sum	-75,096	0	0	0	0	0	0	0	0	0	0	0	0	-75,096
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	71316415	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,000	0	0	0	0	0	0	0	0	0	0	0	0	3,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	64,409	0	0	0	0	0	0	0	0	0	0	0	0	64,409
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	202	0	0	0	0	0	0	0	0	0	0	0	0	202
	914-Pension and Benefits Load	914	0	0	0	0	0	0	0	0	0	0	0	0	914
	915-Injuries and Damages Load	148	0	0	0	0	0	0	0	0	0	0	0	0	148
	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	5,608	0	0	0	0	0	0	0	0	0	0	0	0	5,608
	928-AFUDC Debt Reg	336	0	0	0	0	0	0	0	0	0	0	0	0	336
	929-AFUDC - Equity Regular	480	0	0	0	0	0	0	0	0	0	0	0	0	480
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	75,096	0	0	0	0	0	0	0	0	0	0	0	0	75,096
	825-Clearings	-75,096	0	0	0	0	0	0	0	0	0	0	0	0	-75,096
	Clr Sum	-75,096	0	0	0	0	0	0	0	0	0	0	0	0	-75,096
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 71316515 Reeves GSU Surge Arrestor and Bushings***

Company: 003  
Location: 713 Reeves

**Project Information**

Construction Start Date 8/1/2015 Estimated Completion Date 12/15/2015

List Interim In-Service Dates

Project Need Justification

The surge arresters on Reeves Units 1 & 2 generator step up transformers (GSU) need to be upgraded. The current brown porcelain type arresters installed on the Reeves GSU transformers have been known to fail in the past. PNM has undertaken a massive change out of these particular types of surge arresters throughout their electrical transmission system. A surge arrester is an electrical device that protects the transformer from lightning strikes and voltage surges. The scope of project includes the purchase and installation of the surge arresters during the next schedule unit outages.

Project Alternatives

No other options were considered. The selected option is the most cost effective way to upgrade the GSU transformer surge arresters. PNM will replace the existing inferior surge arresters with an arrester that is listed on PNM's recommended surge arresters list.

Technical Aspects

A surge arrester is an electrical device that protects the transformer from lightning strikes and voltage surges. Each unit has three surge arrester. The scope of project includes the purchase and installation of the surge arresters during the next schedule unit outages. In addition, the existing arresters will be electrical disconnected from the transformer electrical supply lines, unbolted and removed. Next, the new surge arresters will be installed.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	71316515	Year	2015											
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
	110-Straight Time-General	0		0	0	0	0	0	0	0	9,493	0	9,493	
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0	
	350-Material Issues-Major	0		0	0	0	0	0	0	18,400	0	0	18,400	
	370-Outside Services	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	
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0	
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0	
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0	
	807-Non Refundable Contribution	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	
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0	
	913-Payroll Taxes Load	0		0	0	0	0	0	0	0	640	0	640	
	914-Pension and Benefits Load	0		0	0	0	0	0	0	0	2,892	0	2,892	
	915-Injuries and Damages Load	0		0	0	0	0	0	0	0	467	0	467	
	918-San Juan AR-Labor	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	
	922-Minor Material Load	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	
	926-A and G Loads	0		0	0	0	0	0	0	1,531	790	0	2,321	
	928-AFUDC Debt Reg	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	
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0	
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0	
	Cost Sum	0		0	0	0	0	0	0	19,931	14,281	0	34,212	
	825-Clearings	0		0	0	0	0	0	0	0	0	-34,212	-34,212	
	Clr Sum	0		0	0	0	0	0	0	0	0	-34,212	-34,212	
	Proj Net	0		0	0	0	0	0	0	19,931	14,281	-34,212	0	

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	71316515	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	9,493	0	0	0	0	0	0	0	0	0	0	0	0	9,493
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	18,400	0	0	0	0	0	0	0	0	0	0	0	0	18,400
	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	640	0	0	0	0	0	0	0	0	0	0	0	0	640
	914-Pension and Benefits Load	2,892	0	0	0	0	0	0	0	0	0	0	0	0	2,892
	915-Injuries and Damages Load	467	0	0	0	0	0	0	0	0	0	0	0	0	467
	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	2,321	0	0	0	0	0	0	0	0	0	0	0	0	2,321
	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	34,212	0	0	0	0	0	0	0	0	0	0	0	0	34,212
	825-Clearings	-34,212	0	0	0	0	0	0	0	0	0	0	0	0	-34,212
	Clr Sum	-34,212	0	0	0	0	0	0	0	0	0	0	0	0	-34,212
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	71316515	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	9,493	0	0	0	0	0	0	0	0	0	0	0	0	9,493	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	18,400	0	0	0	0	0	0	0	0	0	0	0	0	18,400	
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	640	0	0	0	0	0	0	0	0	0	0	0	0	640	
914-Pension and Benefits Load	2,892	0	0	0	0	0	0	0	0	0	0	0	0	2,892	
915-Injuries and Damages Load	467	0	0	0	0	0	0	0	0	0	0	0	0	467	
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	2,321	0	0	0	0	0	0	0	0	0	0	0	0	2,321	
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	34,212	0	0	0	0	0	0	0	0	0	0	0	0	34,212	
825-Clearings	-34,212	0	0	0	0	0	0	0	0	0	0	0	0	-34,212	
Clr Sum	-34,212	0	0	0	0	0	0	0	0	0	0	0	0	-34,212	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

***Project No: 71316615 Reeves Admin UPS Xfmr Upgrade***

Company: 003  
Location: 713 Reeves

Project Information

Construction Start Date 8/1/2015 Estimated Completion Date 11/15/2015

List Interim In-Service Dates

Project Need Justification

Additional electrical load has been added to the Reeves administration power transformer and the transformer is now overloaded and producing lower output voltages. This lower voltage condition has an adverse effect on computers and copiers. The transformer needs to be replaced with a new larger transformer. Since many of the new loads are computer loads, it is imperative that an uninterruptible power supply (UPS) be added to minimize the loss of computer data during loss of power which occurs when startup power is switched to auxiliary power each time a unit is brought on-line. In addition, in order to improve reliability of the data and voice communications for the administration building, a HVAC system will be installed in the telephone room.

Project Alternatives

No other options were considered. The selected option is the most cost effective way to resolve the low voltage and loss of computer data issues.

Technical Aspects

Additional electrical load has been added to the Reeves administration power transformer and the transformer is now overloaded and producing lower output voltages. The vendor will provide the UPS, transformer, HVAC and labor for full implementation of the project. The existing transformer will be de-energized. All wiring will be disconnected and the transformer will be removed. A new 30KVA, 3 phase, 480-208/120 VAC transformer will be installed and connected to the electric source. Once connected, the new transformer will be energized. In addition, a Powerware UPS and Mitsubutsi HVAC system will be installed.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	71316615	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0		0	0	0	0	0	0	2,500	0	0	2,500
	120-Overtime-General	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
	370-Outside Services	0		0	0	0	0	0	0	48,660	0	0	48,660
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0		0	0	0	0	0	0	169	0	0	169
	914-Pension and Benefits Load	0		0	0	0	0	0	0	762	0	0	762
	915-Injuries and Damages Load	0		0	0	0	0	0	0	123	0	0	123
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		0	0	0	0	0	0	4,257	0	0	4,257
	928-AFUDC Debt Reg	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
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	56,470	0	0	56,470
	825-Clearings	0		0	0	0	0	0	0	0	-56,470	0	-56,470
	Clr Sum	0		0	0	0	0	0	0	0	-56,470	0	-56,470
	Proj Net	0		0	0	0	0	0	0	56,470	-56,470	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	71316615	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,500	0	0	0	0	0	0	0	0	0	0	0	0	2,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	48,660	0	0	0	0	0	0	0	0	0	0	0	0	48,660
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	169	0	0	0	0	0	0	0	0	0	0	0	0	169
	914-Pension and Benefits Load	762	0	0	0	0	0	0	0	0	0	0	0	0	762
	915-Injuries and Damages Load	123	0	0	0	0	0	0	0	0	0	0	0	0	123
	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	4,257	0	0	0	0	0	0	0	0	0	0	0	0	4,257
	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	56,470	0	0	0	0	0	0	0	0	0	0	0	0	56,470
	825-Clearings	-56,470	0	0	0	0	0	0	0	0	0	0	0	0	-56,470
	Clr Sum	-56,470	0	0	0	0	0	0	0	0	0	0	0	0	-56,470
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	71316615	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,500	0	0	0	0	0	0	0	0	0	0	0	0	2,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	48,660	0	0	0	0	0	0	0	0	0	0	0	0	48,660
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	169	0	0	0	0	0	0	0	0	0	0	0	0	169
	914-Pension and Benefits Load	762	0	0	0	0	0	0	0	0	0	0	0	0	762
	915-Injuries and Damages Load	123	0	0	0	0	0	0	0	0	0	0	0	0	123
	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	4,257	0	0	0	0	0	0	0	0	0	0	0	0	4,257
	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	56,470	0	0	0	0	0	0	0	0	0	0	0	0	56,470
	825-Clearings	-56,470	0	0	0	0	0	0	0	0	0	0	0	0	-56,470
	Clr Sum	-56,470	0	0	0	0	0	0	0	0	0	0	0	0	-56,470
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

***Project No: 71317613 Cathodic Protection Line Filters***

Company: 003  
Location: 713 Reeves

**Project Information**

Construction Start Date 1/1/2013 Estimated Completion Date 09/30/2015

List Interim In-Service Dates

0

Project Need Justification

Cathodic protection for Reeves Generating Station needs to be optimized to prevent the corrosion of underground pipes. Currently the DC currents that are to provide cathodic protection are flowing off the plant site and affecting gas lines that are owned by Gas Company of New Mexico. To optimize the cathodic protection at Reeves, line filters need to be installed on all power lines exiting the Reeves Generation Station as the filters will prevent the DC currents from leaving and ensure the cathodic protection of the underground pipes. This project includes funds for the internal labor, external labor, filters and other materials required for the installation.

Project Alternatives

There are several options that were considered for this project:

- 1) Do nothing which will not optimize the cathodic protection at the station.
- 2) Reduce the voltage settings for the cathodic protection to prevent the DC currents from exiting the station. However, setting the voltages lower will not provide the required protection of the underground pipes.
- 3) Install isolation devices, filters, for the main gas pipe lines for each of the individual units. This option provides the optimal level of cathodic protection.

Technical Aspects

The line department will install the filters on the transmission line static lines that enter the Reeves Generating Station. Additional isolation devices will be installed for the main gas pipeline for each of the individual units.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	71317613	Year	2015										
Cost_Type	Bal 3/31/15			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	10,082			0	0	0	0	0	0	0	0	0	10,082
120-Overtime-General	2,193			0	0	0	0	0	0	0	0	0	2,193
350-Material Issues-Major	0			0	0	0	0	0	0	0	0	0	0
370-Outside Services	140,856			8,000	0	0	0	0	0	0	0	0	148,856
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	1,056			0	0	0	0	0	0	0	0	0	1,056
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0
610-Expenses - General	3,408			0	0	0	0	0	0	0	0	0	3,408
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0			0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	824			0	0	0	0	0	0	0	0	0	824
914-Pension and Benefits Load	2,936			0	0	0	0	0	0	0	0	0	2,936
915-Injuries and Damages Load	303			0	0	0	0	0	0	0	0	0	303
918-San Juan AR-Labor	0			0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	859			0	0	0	0	0	0	0	0	0	859
922-Minor Material Load	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
926-A and G Loads	12,843			666	0	0	0	0	0	0	0	0	13,508
928-AFUDC Debt Reg	4,943			0	0	0	0	0	0	0	0	0	4,943
929-AFUDC - Equity Regular	6,734			0	0	0	0	0	0	0	0	0	6,734
937-San Juan AR - Other	0			0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0
Cost Sum	187,036			8,666	0	0	0	0	0	0	0	0	195,702
825-Clearings	-187,036			0	-8,666	0	0	0	0	0	0	0	-195,702
Clr Sum	-187,036			0	-8,666	0	0	0	0	0	0	0	-195,702
Proj Net	0			8,666	-8,666	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	71317613	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	10,082	0	0	0	0	0	0	0	0	0	0	0	0	10,082
	120-Overtime-General	2,193	0	0	0	0	0	0	0	0	0	0	0	0	2,193
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	148,856	0	0	0	0	0	0	0	0	0	0	0	0	148,856
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	1,056	0	0	0	0	0	0	0	0	0	0	0	0	1,056
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	3,408	0	0	0	0	0	0	0	0	0	0	0	0	3,408
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	824	0	0	0	0	0	0	0	0	0	0	0	0	824
	914-Pension and Benefits Load	2,936	0	0	0	0	0	0	0	0	0	0	0	0	2,936
	915-Injuries and Damages Load	303	0	0	0	0	0	0	0	0	0	0	0	0	303
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	859	0	0	0	0	0	0	0	0	0	0	0	0	859
	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	13,508	0	0	0	0	0	0	0	0	0	0	0	0	13,508
	928-AFUDC Debt Reg	4,943	0	0	0	0	0	0	0	0	0	0	0	0	4,943
	929-AFUDC - Equity Regular	6,734	0	0	0	0	0	0	0	0	0	0	0	0	6,734
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	195,702	0	0	0	0	0	0	0	0	0	0	0	0	195,702
	825-Clearings	-195,702	0	0	0	0	0	0	0	0	0	0	0	0	-195,702
	Clr Sum	-195,702	0	0	0	0	0	0	0	0	0	0	0	0	-195,702
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	71317613	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	10,082	0	0	0	0	0	0	0	0	0	0	0	0	10,082
	120-Overtime-General	2,193	0	0	0	0	0	0	0	0	0	0	0	0	2,193
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	148,856	0	0	0	0	0	0	0	0	0	0	0	0	148,856
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	1,056	0	0	0	0	0	0	0	0	0	0	0	0	1,056
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	3,408	0	0	0	0	0	0	0	0	0	0	0	0	3,408
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	824	0	0	0	0	0	0	0	0	0	0	0	0	824
	914-Pension and Benefits Load	2,936	0	0	0	0	0	0	0	0	0	0	0	0	2,936
	915-Injuries and Damages Load	303	0	0	0	0	0	0	0	0	0	0	0	0	303
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	859	0	0	0	0	0	0	0	0	0	0	0	0	859
	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	13,508	0	0	0	0	0	0	0	0	0	0	0	0	13,508
	928-AFUDC Debt Reg	4,943	0	0	0	0	0	0	0	0	0	0	0	0	4,943
	929-AFUDC - Equity Regular	6,734	0	0	0	0	0	0	0	0	0	0	0	0	6,734
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	195,702	0	0	0	0	0	0	0	0	0	0	0	0	195,702
	825-Clearings	-195,702	0	0	0	0	0	0	0	0	0	0	0	0	-195,702
	Clr Sum	-195,702	0	0	0	0	0	0	0	0	0	0	0	0	-195,702
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 71328015 Reeves NERC Frequency Response DCS***

Company: 003

Location: 713 Reeves

**Project Information**

Construction Start Date 4/15/2015

Estimated Completion Date 7/31/2015

List Interim In-Service Dates

Project Need Justification

NERC requires that all generating units provide a pre-defined frequency response (Droop) to frequency excursions to minimize system instability. All three units at Reeves Station do not meet requirements for NERC BAL003 Frequency Response. This was demonstrated by recording unit responses in 2014 for various frequency responses. New frequency response application upgrades must be implemented on the distributed control system (DCS) by the control vendor to ensure full compliance of the NERC BAL003 Standard. New frequency application upgrades will first be installed on training simulator and fully tested. Once fully tested, the new applications will be installed on all three unit DCS systems. Once tested online, the applications will be fully commissioned. The units' frequency response as defined by NERC indicate that a unit must respond to system frequency excursions when they are greater than +/- .036 Hz.

Project Alternatives

Do nothing option is not a feasible approach. The recommended option is the most cost effective option. PNM selected the DCS control vendor to design and implement the upgrade application because the vendor originally design the droop application and is more cost effective to accomplish the task this way they were familiar with the hardware and software.

Technical Aspects

All three units at Reeves Station do not meet requirements for NERC BAL003 Frequency Response. The problem with the existing droop application is that when the unit responds to a frequency excursion, the megawatt set point controller immediately returns the mw output of unit to the mw value of the set point controller set point thus diminishing the droop response to the excursion. The upgrade automatically puts the megawatt set point controller in hold until the excursion diminishes thus allowing the droop application to perform as intended. New frequency application upgrades will first be installed on training simulator and fully tested. Once fully tested, the new applications will be installed on all three unit DCS systems. Once tested online, the applications will be fully commissioned.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	71328015	Year	2015											
Cost_Type	Bal 3/31/15			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0			0	1,328	0	0	0	0	0	0	0	1,328	
120-Overtime-General	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	
370-Outside Services	0			0	0	22,547	0	0	0	0	0	0	22,547	
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	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	
426-Capitalized Interest	0			0	5	64	120	0	0	0	0	0	189	
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0			0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0			0	90	0	0	0	0	0	0	0	90	
914-Pension and Benefits Load	0			0	405	0	0	0	0	0	0	0	405	
915-Injuries and Damages Load	0			0	65	0	0	0	0	0	0	0	65	
918-San Juan AR-Labor	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	
922-Minor Material Load	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	
926-A and G Loads	0			0	110	1,876	0	0	0	0	0	0	1,986	
928-AFUDC Debt Reg	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	
937-San Juan AR - Other	0			0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0	
Cost Sum	0			0	2,002	24,487	120	0	0	0	0	0	26,609	
825-Clearings	0			0	0	0	-26,609	0	0	0	0	0	-26,609	
Clr Sum	0			0	0	0	-26,609	0	0	0	0	0	-26,609	
Proj Net	0			0	2,002	24,487	-26,490	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	71328015	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,328	0	0	0	0	0	0	0	0	0	0	0	0	1,328
	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	22,547	0	0	0	0	0	0	0	0	0	0	0	0	22,547
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	189	0	0	0	0	0	0	0	0	0	0	0	0	189
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	90
	914-Pension and Benefits Load	405	0	0	0	0	0	0	0	0	0	0	0	0	405
	915-Injuries and Damages Load	65	0	0	0	0	0	0	0	0	0	0	0	0	65
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	1,986	0	0	0	0	0	0	0	0	0	0	0	0	1,986
	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	26,609	0	0	0	0	0	0	0	0	0	0	0	0	26,609
	825-Clearings	-26,609	0	0	0	0	0	0	0	0	0	0	0	0	-26,609
	Clr Sum	-26,609	0	0	0	0	0	0	0	0	0	0	0	0	-26,609
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	71328015	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,328	0	0	0	0	0	0	0	0	0	0	0	0	1,328
	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	22,547	0	0	0	0	0	0	0	0	0	0	0	0	22,547
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	189	0	0	0	0	0	0	0	0	0	0	0	0	189
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	90
	914-Pension and Benefits Load	405	0	0	0	0	0	0	0	0	0	0	0	0	405
	915-Injuries and Damages Load	65	0	0	0	0	0	0	0	0	0	0	0	0	65
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	1,986	0	0	0	0	0	0	0	0	0	0	0	0	1,986
	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	26,609	0	0	0	0	0	0	0	0	0	0	0	0	26,609
	825-Clearings	-26,609	0	0	0	0	0	0	0	0	0	0	0	0	-26,609
	Clr Sum	-26,609	0	0	0	0	0	0	0	0	0	0	0	0	-26,609
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Rio Bravo**

***Project No: 04616415 Rio Bravo Water Injection VFD Upgrade***

Company: 003  
Location: 046 Rio Bravo

**Project Information**

Construction Start Date 8/1/2015 Estimated Completion Date 11/30/2015

List Interim In-Service Dates

Project Need Justification

The Rio Bravo water injection variable speed drive system (VFD) is used to control the flow of water needed to minimize Nitric Oxide (Nox) emissions when the unit is burning liquid fuel. The VFD is a critical component of the liquid fuel system. The VFD is obsolete and replacement spare parts are no longer available from the vendor so a new VFD needs to be purchased and installed. The upgrade of the VFD system will include the procurement of new VFD, installation and technical assistance for check out and commissioning.

Project Alternatives

The do nothing option is not a viable option. Other options include purchase parts and technical support from a third party source. Parts from a third party supplier are limited and there is no longer third party technical support available. The selected option is the most effective option.

Technical Aspects

Upgrade of the VFD system will include the procurement of new VFD, installation and technical assistance for check out and commissioning.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	04616415	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0		0	0	0	0	0	0	1,500	3,000	0	4,500
	120-Overtime-General	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
	370-Outside Services	0		0	0	0	0	0	0	62,065	0	0	62,065
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0		0	0	0	0	0	0	101	202	0	303
	914-Pension and Benefits Load	0		0	0	0	0	0	0	457	914	0	1,371
	915-Injuries and Damages Load	0		0	0	0	0	0	0	74	148	0	221
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		0	0	0	0	0	0	5,289	250	0	5,538
	928-AFUDC Debt Reg	0		0	0	0	0	0	0	90	185	192	467
	929-AFUDC - Equity Regular	0		0	0	0	0	0	0	128	265	275	667
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	69,703	4,963	467	75,133
	825-Clearings	0		0	0	0	0	0	0	0	0	-75,133	-75,133
	Clr Sum	0		0	0	0	0	0	0	0	0	-75,133	-75,133
	Proj Net	0		0	0	0	0	0	0	69,703	4,963	-74,666	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	04616415	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,500	0	0	0	0	0	0	0	0	0	0	0	0	4,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	62,065	0	0	0	0	0	0	0	0	0	0	0	0	62,065
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	303	0	0	0	0	0	0	0	0	0	0	0	0	303
	914-Pension and Benefits Load	1,371	0	0	0	0	0	0	0	0	0	0	0	0	1,371
	915-Injuries and Damages Load	221	0	0	0	0	0	0	0	0	0	0	0	0	221
	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	5,538	0	0	0	0	0	0	0	0	0	0	0	0	5,538
	928-AFUDC Debt Reg	467	0	0	0	0	0	0	0	0	0	0	0	0	467
	929-AFUDC - Equity Regular	667	0	0	0	0	0	0	0	0	0	0	0	0	667
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	75,133	0	0	0	0	0	0	0	0	0	0	0	0	75,133
	825-Clearings	-75,133	0	0	0	0	0	0	0	0	0	0	0	0	-75,133
	Clr Sum	-75,133	0	0	0	0	0	0	0	0	0	0	0	0	-75,133
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	04616415	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,500	0	0	0	0	0	0	0	0	0	0	0	0	4,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	62,065	0	0	0	0	0	0	0	0	0	0	0	0	62,065
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	303	0	0	0	0	0	0	0	0	0	0	0	0	303
	914-Pension and Benefits Load	1,371	0	0	0	0	0	0	0	0	0	0	0	0	1,371
	915-Injuries and Damages Load	221	0	0	0	0	0	0	0	0	0	0	0	0	221
	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	5,538	0	0	0	0	0	0	0	0	0	0	0	0	5,538
	928-AFUDC Debt Reg	467	0	0	0	0	0	0	0	0	0	0	0	0	467
	929-AFUDC - Equity Regular	667	0	0	0	0	0	0	0	0	0	0	0	0	667
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	75,133	0	0	0	0	0	0	0	0	0	0	0	0	75,133
	825-Clearings	-75,133	0	0	0	0	0	0	0	0	0	0	0	0	-75,133
	Clr Sum	-75,133	0	0	0	0	0	0	0	0	0	0	0	0	-75,133
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

***Project No: 04616515 Rio Bravo LCI Relay Upgrade***

Company: 003  
Location: 046 Rio Bravo

Project Information

Construction Start Date 7/1/2015 Estimated Completion Date 8/31/2015

List Interim In-Service Dates

Project Need Justification

The Load Commutator Inverter (LCI) relay is used to protect the unit from unbalance currents during unit roll up. During unit roll up, the LCI provides the electrical power source for the generator to function as a motor until the combustion turbine fires. Shortly after the combustion turbine fires, the combustion turbine speed is accelerated up to synchronous speed. In the event the LCI fails to function properly for any reason during roll up, the LCI relay trips the switchyard breaker which will disconnect the auxiliary electrical power supply from the unit. The tripping of the switchyard breaker results in a unit blackout. This problem was not recognized until several years after the unit was installed. From an initial relay analysis, it has been determined that this early vintage of the LCI relay does not have the necessary time delay to ignore the unbalanced currents while the LCI transitions to the off-line state and the currents become normal. In order to resolve the unnecessary tripping problems and improve unit reliability, a new state-of-the-art LCI relay with a built-in timing delay function will need to be installed.

Project Alternatives

Do nothing option is not a viable option. No other options were analyzed because the recommended option is the only viable option. The recommended option will provide the LCI relay that allow ample time delay for the LCI to stabilize during an LCI trip. The type of LCI relays selected will be determined by a protection engineer once a fault analysis study has been completed.

Technical Aspects

An engineering study will be performed to determine the type of relay to be installed. PNM will purchase the relay and an outside contractor will install and test the relay.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	04616515	Year	2015											
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total		
110-Straight Time-General		0	0	1,500	2,500	0	0	0	0	0	0	4,000		
120-Overtime-General		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		
370-Outside Services		0	0	0	8,167	0	0	0	0	0	0	8,167		
374-Outside Svcs Legal		0	0	0	0	0	0	0	0	0	0	0		
377-Outside Services-Temp Labor		0	0	0	0	0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0		
530-Employee Expense		0	0	0	0	0	0	0	0	0	0	0		
610-Expenses - General		0	0	0	0	0	0	0	0	0	0	0		
805-Land and Land Rights		0	0	0	0	0	0	0	0	0	0	0		
807-Non Refundable Contribution		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		
426-Capitalized Interest		0	0	0	0	0	0	0	0	0	0	0		
908-Luna AR - Labor		0	0	0	0	0	0	0	0	0	0	0		
909-Luna AR - Other		0	0	0	0	0	0	0	0	0	0	0		
913-Payroll Taxes Load		0	0	101	169	0	0	0	0	0	0	270		
914-Pension and Benefits Load		0	0	457	762	0	0	0	0	0	0	1,218		
915-Injuries and Damages Load		0	0	74	123	0	0	0	0	0	0	197		
918-San Juan AR-Labor		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		
922-Minor Material Load		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		
926-A and G Loads		0	0	125	887	0	0	0	0	0	0	1,012		
928-AFUDC Debt Reg		0	0	3	22	38	0	0	0	0	0	63		
929-AFUDC - Equity Regular		0	0	4	32	55	0	0	0	0	0	91		
937-San Juan AR - Other		0	0	0	0	0	0	0	0	0	0	0		
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0		
Cost Sum		0	0	2,264	12,661	93	0	0	0	0	0	15,018		
825-Clearings		0	0	0	0	-15,018	0	0	0	0	0	-15,018		
Clr Sum		0	0	0	0	-15,018	0	0	0	0	0	-15,018		
Proj Net		0	0	2,264	12,661	-14,925	0	0	0	0	0	0		



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	04616515	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,000	0	0	0	0	0	0	0	0	0	0	0	0	4,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	8,167	0	0	0	0	0	0	0	0	0	0	0	0	8,167
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	270	0	0	0	0	0	0	0	0	0	0	0	0	270
	914-Pension and Benefits Load	1,218	0	0	0	0	0	0	0	0	0	0	0	0	1,218
	915-Injuries and Damages Load	197	0	0	0	0	0	0	0	0	0	0	0	0	197
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	1,012	0	0	0	0	0	0	0	0	0	0	0	0	1,012
	928-AFUDC Debt Reg	63	0	0	0	0	0	0	0	0	0	0	0	0	63
	929-AFUDC - Equity Regular	91	0	0	0	0	0	0	0	0	0	0	0	0	91
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	15,018	0	0	0	0	0	0	0	0	0	0	0	0	15,018
	825-Clearings	-15,018	0	0	0	0	0	0	0	0	0	0	0	0	-15,018
	Clr Sum	-15,018	0	0	0	0	0	0	0	0	0	0	0	0	-15,018
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	04616515	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,000	0	0	0	0	0	0	0	0	0	0	0	0	4,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	8,167	0	0	0	0	0	0	0	0	0	0	0	0	8,167
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	270	0	0	0	0	0	0	0	0	0	0	0	0	270
	914-Pension and Benefits Load	1,218	0	0	0	0	0	0	0	0	0	0	0	0	1,218
	915-Injuries and Damages Load	197	0	0	0	0	0	0	0	0	0	0	0	0	197
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	1,012	0	0	0	0	0	0	0	0	0	0	0	0	1,012
	928-AFUDC Debt Reg	63	0	0	0	0	0	0	0	0	0	0	0	0	63
	929-AFUDC - Equity Regular	91	0	0	0	0	0	0	0	0	0	0	0	0	91
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	15,018	0	0	0	0	0	0	0	0	0	0	0	0	15,018
	825-Clearings	-15,018	0	0	0	0	0	0	0	0	0	0	0	0	-15,018
	Clr Sum	-15,018	0	0	0	0	0	0	0	0	0	0	0	0	-15,018
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 04616615 Rio Bravo Hydrogen Control Panel Upgrade***

Company: 003  
Location: 046 Rio Bravo

**Project Information**

Construction Start Date 8/1/2015 Estimated Completion Date 11/15/2015

List Interim In-Service Dates

Project Need Justification

Several components in the hydrogen control cabinet are obsolete. Many of these components are no longer available and others are limited in after market stock. A new upgrade kit is now available. This upgrade kit replaces all obsolete components. The installation upgrade includes the kit and recalibration of the hydrogen unit. This approach will extend the life of the hydrogen control unit several more years. The hydrogen control system is required to maintain the Rio Bravo's generator cooling system in a safe and reliable working condition.

Project Alternatives

The selected option is the most cost effective way to keep the unit functional and reliable. No other third-party upgrade kits are available. The only other option available is to replace the current hydrogen control system with a third party system and this would be very expensive because the current control panel is not compatible with other systems.

Technical Aspects

A new installation upgrade kit is now available. PNM will purchase the upgrade kit. This upgrade kit replaces all obsolete components. The installation upgrade includes the kit and recalibration of the hydrogen unit.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	04616615	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0		0	0	0	0	500	0	1,500	0	0	2,000
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0		0	0	0	0	13,800	0	2,371	0	0	16,171
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0		0	0	0	0	34	0	101	0	0	135
	914-Pension and Benefits Load	0		0	0	0	0	152	0	457	0	0	609
	915-Injuries and Damages Load	0		0	0	0	0	25	0	74	0	0	98
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		0	0	0	0	1,190	0	322	0	0	1,512
	928-AFUDC Debt Reg	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
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	15,700	0	4,825	0	0	20,525
	825-Clearings	0		0	0	0	0	0	0	0	-20,525	0	-20,525
	Clr Sum	0		0	0	0	0	0	0	0	-20,525	0	-20,525
	Proj Net	0		0	0	0	0	15,700	0	4,825	-20,525	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	04616615	Year	2016												
	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	0	0	0	0	0	0	0	0	2,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	16,171	0	0	0	0	0	0	0	0	0	0	0	0	16,171
	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	135	0	0	0	0	0	0	0	0	0	0	0	0	135
	914-Pension and Benefits Load	609	0	0	0	0	0	0	0	0	0	0	0	0	609
	915-Injuries and Damages Load	98	0	0	0	0	0	0	0	0	0	0	0	0	98
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	1,512	0	0	0	0	0	0	0	0	0	0	0	0	1,512
	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	20,525	0	0	0	0	0	0	0	0	0	0	0	0	20,525
	825-Clearings	-20,525	0	0	0	0	0	0	0	0	0	0	0	0	-20,525
	Clr Sum	-20,525	0	0	0	0	0	0	0	0	0	0	0	0	-20,525
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	04616615	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	0	0	0	0	0	0	0	0	2,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	16,171	0	0	0	0	0	0	0	0	0	0	0	0	16,171
	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	135	0	0	0	0	0	0	0	0	0	0	0	0	135
	914-Pension and Benefits Load	609	0	0	0	0	0	0	0	0	0	0	0	0	609
	915-Injuries and Damages Load	98	0	0	0	0	0	0	0	0	0	0	0	0	98
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	1,512	0	0	0	0	0	0	0	0	0	0	0	0	1,512
	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	20,525	0	0	0	0	0	0	0	0	0	0	0	0	20,525
	825-Clearings	-20,525	0	0	0	0	0	0	0	0	0	0	0	0	-20,525
	Clr Sum	-20,525	0	0	0	0	0	0	0	0	0	0	0	0	-20,525
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 04616715 Rio Bravo Gas Purge Valves Upgrade***

Company: 003  
Location: 046 Rio Bravo

**Project Information**

Construction Start Date 8/1/2015 Estimated Completion Date 11/30/2015

List Interim In-Service Dates

Project Need Justification

The gas purge valves (valves) at Rio Bravo are used to purge the gas inlet lines when the unit is burning fuel oil. These valves prevent the diesel fuel from back feeding into the gas fuel system. For several years, these valves have been an issue and they have caused numerous unit trips. The present temporary fix is to override the point when we get a valve alarm during startup. The logic allows ten minutes to resolve the issue before the unit trips. Once it is determined that the valve is malfunctioning, an override is implemented on the system which allows for a reset of the pending trip condition. Operating the unit in this condition significantly affects unit availability because the unit is run on fuel oil during emergency conditions so it is imperative that the unit be as reliable as possible. In order to implement a permanent fix, GE provides an upgrade valve kit. New valve kits will be purchase and installed during the upcoming fall outage.

Project Alternatives

The do nothing option is not a viable option. Other options include overriding the non-working valve during startup. This is just a temporary fix and not a viable option. No other vendors were evaluated as another source for the valve kits because no third-party kits are available and to use of a third party valve vendor will require complete replacement of all valves. This option will be very expensive.

Technical Aspects

PNM will purchase the valve upgrade kits. A contractor will install kits. PNM will provide technical support.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	04616715	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0		0	0	0	0	0	6,500	0	0	0	6,500
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0		0	0	0	0	0	43,001	0	0	0	43,001
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0		0	0	0	0	0	438	0	0	0	438
	914-Pension and Benefits Load	0		0	0	0	0	0	1,980	0	0	0	1,980
	915-Injuries and Damages Load	0		0	0	0	0	0	320	0	0	0	320
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		0	0	0	0	0	4,118	0	0	0	4,118
	928-AFUDC Debt Reg	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
	937-San Juan AR - Other	0		0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	56,357	0	0	0	56,357
	825-Clearings	0		0	0	0	0	0	0	-56,357	0	0	-56,357
	Clr Sum	0		0	0	0	0	0	0	-56,357	0	0	-56,357
	Proj Net	0		0	0	0	0	0	56,357	-56,357	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	04616715	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,500	0	0	0	0	0	0	0	0	0	0	0	0	6,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	43,001	0	0	0	0	0	0	0	0	0	0	0	0	43,001
	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	438	0	0	0	0	0	0	0	0	0	0	0	0	438
	914-Pension and Benefits Load	1,980	0	0	0	0	0	0	0	0	0	0	0	0	1,980
	915-Injuries and Damages Load	320	0	0	0	0	0	0	0	0	0	0	0	0	320
	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	4,118	0	0	0	0	0	0	0	0	0	0	0	0	4,118
	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	56,357	0	0	0	0	0	0	0	0	0	0	0	0	56,357
	825-Clearings	-56,357	0	0	0	0	0	0	0	0	0	0	0	0	-56,357
	Clr Sum	-56,357	0	0	0	0	0	0	0	0	0	0	0	0	-56,357
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	04616715	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	6,500	0	0	0	0	0	0	0	0	0	0	0	0	6,500
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	43,001	0	0	0	0	0	0	0	0	0	0	0	0	43,001
	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	438	0	0	0	0	0	0	0	0	0	0	0	0	438
	914-Pension and Benefits Load	1,980	0	0	0	0	0	0	0	0	0	0	0	0	1,980
	915-Injuries and Damages Load	320	0	0	0	0	0	0	0	0	0	0	0	0	320
	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	4,118	0	0	0	0	0	0	0	0	0	0	0	0	4,118
	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	56,357	0	0	0	0	0	0	0	0	0	0	0	0	56,357
	825-Clearings	-56,357	0	0	0	0	0	0	0	0	0	0	0	0	-56,357
	Clr Sum	-56,357	0	0	0	0	0	0	0	0	0	0	0	0	-56,357
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

***Project No: 04616915 Rio Bravo Water and Sewer Hookup***

Company: 003  
Location: 046 Rio Bravo

Project Information

Construction Start Date 8/1/2015 Estimated Completion Date 11/30/2015

List Interim In-Service Dates

Project Need Justification

Presently Rio Bravo Station (plant) utilizes a raw water supply for service water and plant sub systems. The supply of raw water is provided by an onsite water well. This water is non-potable water. Drinking water is provided by bottle water. In order to provide potable water for drinking and other domestic uses, it is required that the plant be connected to the city water supply system. In addition, the plant is not hooked up to city sewer. A septic tank is provided for sewer collection. In order to provide permanent solution to replace the sewer collection system, the plant needs to be connected to city sewer system. When the plant was first constructed, city water and sewer system were not available. City water and sewer are now available.

Project Alternatives

Evaluated two options. The do nothing option and the recommended option. The do nothing option includes providing bottle drinking water in lieu of connecting to the city water supply system. There is a risk with this option. An employee, contractor or visitor may accidentally drink the no-potable water. This may result in serious medical situation if the individual comes down with dysentery. For the sewer situation, PNM will continue to hire a contractor to empty the tank every 3 months. The risk in this situation is that the sewer holding tank may overflow posing a environmental and health situation. Connection to the city sewer and water is most viable option.

Technical Aspects

An engineering firm will survey the site and determine the exact locations of city water and sewer connections. Once this task is accomplished, the engineering firm will produce a construction set of drawings. The successful contractor will implement the project.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	04616915	Year	2015											
Cost_Type	Bal 3/31/15			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	0			0	0	0	0	2,500	2,500	0	0	0	5,000	
120-Overtime-General	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	
370-Outside Services	0			0	0	0	0	5,000	25,000	19,476	0	0	49,476	
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	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	
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0			0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0			0	0	0	0	169	169	0	0	0	337	
914-Pension and Benefits Load	0			0	0	0	0	762	762	0	0	0	1,523	
915-Injuries and Damages Load	0			0	0	0	0	123	123	0	0	0	246	
918-San Juan AR-Labor	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	
922-Minor Material Load	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	
926-A and G Loads	0			0	0	0	0	624	2,288	1,620	0	0	4,532	
928-AFUDC Debt Reg	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	
937-San Juan AR - Other	0			0	0	0	0	0	0	0	0	0	0	
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0	
Cost Sum	0			0	0	0	0	9,177	30,841	21,096	0	0	61,114	
825-Clearings	0			0	0	0	0	0	0	0	-61,114	0	-61,114	
Clr Sum	0			0	0	0	0	0	0	0	-61,114	0	-61,114	
Proj Net	0			0	0	0	0	9,177	30,841	21,096	-61,114	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	04616915	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,000	0	0	0	0	0	0	0	0	0	0	0	0	5,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	49,476	0	0	0	0	0	0	0	0	0	0	0	0	49,476
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	337	0	0	0	0	0	0	0	0	0	0	0	0	337
	914-Pension and Benefits Load	1,523	0	0	0	0	0	0	0	0	0	0	0	0	1,523
	915-Injuries and Damages Load	246	0	0	0	0	0	0	0	0	0	0	0	0	246
	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	4,532	0	0	0	0	0	0	0	0	0	0	0	0	4,532
	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	61,114	0	0	0	0	0	0	0	0	0	0	0	0	61,114
	825-Clearings	-61,114	0	0	0	0	0	0	0	0	0	0	0	0	-61,114
	Clr Sum	-61,114	0	0	0	0	0	0	0	0	0	0	0	0	-61,114
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	04616915	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	5,000	0	0	0	0	0	0	0	0	0	0	0	0	5,000
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	49,476	0	0	0	0	0	0	0	0	0	0	0	0	49,476
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	337	0	0	0	0	0	0	0	0	0	0	0	0	337
	914-Pension and Benefits Load	1,523	0	0	0	0	0	0	0	0	0	0	0	0	1,523
	915-Injuries and Damages Load	246	0	0	0	0	0	0	0	0	0	0	0	0	246
	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	4,532	0	0	0	0	0	0	0	0	0	0	0	0	4,532
	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	61,114	0	0	0	0	0	0	0	0	0	0	0	0	61,114
	825-Clearings	-61,114	0	0	0	0	0	0	0	0	0	0	0	0	-61,114
	Clr Sum	-61,114	0	0	0	0	0	0	0	0	0	0	0	0	-61,114
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 04634115 Rio Bravo Turbine Supervisory Upgrade***

Company: 003  
Location: 046 Rio Bravo

Project Information

Construction Start Date 4/15/2015 Estimated Completion Date 11/30/2015

List Interim In-Service Dates

Project Need Justification

The turbine supervisory instrumentation (TSI) is used to measure vibration, eccentricity and thrust conditions of the Rio Bravo combustion turbine. The current TSI system is now obsolete and it is not fully functional. This model of vibration system was no longer manufactured after 1995. Parts are no longer available and technical support is limited. Two of the eight vibration channels no longer work and cannot be repaired. It is imperative that this system function properly in order to provide the ability for the TSI system to trip the unit during high vibration or abnormal thrust bearing conditions to prevent serious unit damage.

Project Alternatives

Do nothing option is not a viable option. No other options were analyzed because the recommended option is the only viable option. Other TSI systems were not evaluated. The new TSI system that will be purchase and installed is the standard system used throughout PNM's generation fleet and is compatible with GE's Mark VIe control system that will be installed in conjunction with the TSI system. By providing a standard TSI system, this provides availability of spare parts and working knowledge for maintenance.

Technical Aspects

The TSI will be purchased from the vendor. PNM personnel will install the TSI under the supervision of the vendor during the upcoming November 2015 outage.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	04634115	Year	2015										
Cost_Type	Bal 3/31/15			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0			1,500	1,500	0	1,500	0	0	0	3,580	0	8,080
120-Overtime-General	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
370-Outside Services	0			0	14,338	0	0	0	52,323	0	3,585	0	70,246
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
426-Capitalized Interest	0			5	50	91	96	102	231	360	382	405	1,723
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0			0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	0			101	101	0	101	0	0	0	241	0	545
914-Pension and Benefits Load	0			457	457	0	457	0	0	0	1,090	0	2,461
915-Injuries and Damages Load	0			74	74	0	74	0	0	0	176	0	398
918-San Juan AR-Labor	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
922-Minor Material Load	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
926-A and G Loads	0			125	1,318	0	125	0	4,353	0	596	0	6,517
928-AFUDC Debt Reg	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
937-San Juan AR - Other	0			0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0
Cost Sum	0			2,262	17,838	91	2,353	102	56,907	360	9,651	405	89,969
825-Clearings	0			0	0	0	0	0	0	0	0	-89,969	-89,969
Clr Sum	0			0	0	0	0	0	0	0	0	-89,969	-89,969
Proj Net	0			2,262	17,838	91	2,353	102	56,907	360	9,651	-89,563	0



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	04634115	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	8,080	0	0	0	0	0	0	0	0	0	0	0	0	8,080
	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	70,246	0	0	0	0	0	0	0	0	0	0	0	0	70,246
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	1,723	0	0	0	0	0	0	0	0	0	0	0	0	1,723
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	545	0	0	0	0	0	0	0	0	0	0	0	0	545
	914-Pension and Benefits Load	2,461	0	0	0	0	0	0	0	0	0	0	0	0	2,461
	915-Injuries and Damages Load	398	0	0	0	0	0	0	0	0	0	0	0	0	398
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	6,517	0	0	0	0	0	0	0	0	0	0	0	0	6,517
	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	89,969	0	0	0	0	0	0	0	0	0	0	0	0	89,969
	825-Clearings	-89,969	0	0	0	0	0	0	0	0	0	0	0	0	-89,969
	Clr Sum	-89,969	0	0	0	0	0	0	0	0	0	0	0	0	-89,969
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	04634115	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	8,080	0	0	0	0	0	0	0	0	0	0	0	0	8,080
	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	70,246	0	0	0	0	0	0	0	0	0	0	0	0	70,246
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	1,723	0	0	0	0	0	0	0	0	0	0	0	0	1,723
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	545	0	0	0	0	0	0	0	0	0	0	0	0	545
	914-Pension and Benefits Load	2,461	0	0	0	0	0	0	0	0	0	0	0	0	2,461
	915-Injuries and Damages Load	398	0	0	0	0	0	0	0	0	0	0	0	0	398
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	6,517	0	0	0	0	0	0	0	0	0	0	0	0	6,517
	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	89,969	0	0	0	0	0	0	0	0	0	0	0	0	89,969
	825-Clearings	-89,969	0	0	0	0	0	0	0	0	0	0	0	0	-89,969
	Clr Sum	-89,969	0	0	0	0	0	0	0	0	0	0	0	0	-89,969
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**San Juan**

***Project No: 76116328 Unit 1 Roof replacement***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 7/1/2015 Estimated Completion Date 9/30/2016

List Interim In-Service Dates

0

Project Need Justification

Routine major maintenance activities that meet the criteria for capitalization are necessary to keep site buildings, access ways, lighting and infrastructure in a safe and reliable condition. This project is part of several projects (76116328, 76116334, 76116335, 76416127, 76416128, 76516036, 76516117, 76516717, 76616231, 76616536, 76617515, 76116114, 76116331, 76117514, 76517524, 76616028, 76616054, 76616115, 76617915, 76716220) that relate to building and structure

maintenance requirements. These projects, include replacing roof systems that have had a normal life expectancy and require replacement due to the fact they are reaching the end of life, attending to aging coating systems (typically paint), designing and constructing access platforms to address safety issues, and purchasing scaffolding to reduce rental expense.

Project Alternatives

Building maintenance activities have no alternatives as long as the facilities are occupied and used for production. There is some discretion in the timing of these investments and typically they are arranged (when possible) in years when there are no planned outages as projects in non-outage years typically have less project management demands and lower capital funding requirements.

Technical Aspects

Replace failed roofing with fully adhered roofing system. Roof replacements include removal of the existing ballast and/or fully adhered waterproof membrane, insulation and decking (if necessary). Some of the original roofing systems used asbestos containing materials so abatement is necessary. The new roof systems are using a light weight concrete in lieu of aggregate ballast.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116328	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	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
	929-AFUDC - Equity Regular	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
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	0	0	0	0
	825-Clearings	0		0	0	0	0	0	0	0	0	0	0
	Clr Sum	0		0	0	0	0	0	0	0	0	0	0
Proj Net		0		0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116328	Year	2016												
	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	10,000	10,000	65,000	65,000	0	0	0	150,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	237	237	1,541	1,541	0	0	0	3,556
	928-AFUDC Debt Reg	0	0	0	0	0	0	4	13	47	105	0	0	0	169
	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	-5,119	-5,119	-33,270	-33,270	0	0	0	-76,778
	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	5,122	5,131	33,318	33,376	0	0	0	76,947
	825-Clearings	0	0	0	0	0	0	0	0	0	-76,948	0	0	0	-76,948
	Clr Sum	0	0	0	0	0	0	0	0	0	-76,948	0	0	0	-76,948
	Proj Net	0	0	0	0	0	0	5,122	5,131	33,318	-43,572	0	0	0	-1

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116328	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	150,000	0	0	0	0	0	0	0	0	0	0	0	0	150,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	3,556	0	0	0	0	0	0	0	0	0	0	0	0	3,556
	928-AFUDC Debt Reg	169	0	0	0	0	0	0	0	0	0	0	0	0	169
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-76,778	0	0	0	0	0	0	0	0	0	0	0	0	-76,778
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	76,947	0	0	0	0	0	0	0	0	0	0	0	0	76,947
	825-Clearings	-76,948	0	0	0	0	0	0	0	0	0	0	0	0	-76,948
	Clr Sum	-76,948	0	0	0	0	0	0	0	0	0	0	0	0	-76,948
	Proj Net	-1	0	0	0	0	0	0	0	0	0	0	0	0	-1

***Project No: 76116330 Unit 1 Absorber Riser Tiling***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 5/1/2015

List Interim In-Service Dates

0

Project Need Justification

The flue gas desulfurization (FGD) systems are pollution control systems designed to remove sulfur dioxide (SO<sub>2</sub>) from the gases generated by burning coal. Major maintenance activities on these systems meet the criteria for capitalization. These major maintenance activities occur during planned unit outages with durations between 20 and 50 days. San Juan Unit 1 and San Juan Unit 4 both have planned outages of 50 days in 2015. These activities are necessary to maintain compliance with the Title V Air Permit which, among other things, regulates the emission rate for SO<sub>2</sub>. Poor performance of the FGD systems will result in either reduced unit output capacity (production of fewer megawatt hours) or out of compliance operation which can result in fines or penalties.

Project Alternatives

This is a major maintenance activity designed to return the systems from worn conditions back to original design specifications, there are no technical alternatives. These activities are mostly remove and replace in-kind with some material upgrades. Operational alternatives would be to reduce unit output but this is not a viable alternative as it would result in higher cost per megawatt hour.

Technical Aspects

Clean outlet hoods and ducts down to bright metal. Install an epoxy coating to both the inside and outside surfaces to protect the substrate metal from corrosion.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116330	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,832		0	0	0	0	0	0	0	0	0	7,832
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	274,312		0	0	0	0	0	0	0	0	0	274,312
	370-Outside Services	2,520,000		100,000	0	0	0	0	0	0	0	0	2,620,000
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	7,256		0	0	0	0	0	0	0	0	0	7,256
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	528		0	0	0	0	0	0	0	0	0	528
	914-Pension and Benefits Load	2,374		0	0	0	0	0	0	0	0	0	2,374
	915-Injuries and Damages Load	370		0	0	0	0	0	0	0	0	0	370
	918-San Juan AR-Labor	-5,552		0	0	0	0	0	0	0	0	0	-5,552
	921-Stores / Purchasing Load	20,671		0	0	0	0	0	0	0	0	0	20,671
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	32,721		0	0	0	0	0	0	0	0	0	32,721
	926-A and G Loads	66,583		2,370	0	0	0	0	0	0	0	0	68,953
	928-AFUDC Debt Reg	15,035		-1,083	0	0	0	0	0	0	0	0	13,952
	929-AFUDC - Equity Regular	21,182		-1,546	0	0	0	0	0	0	0	0	19,636
	937-San Juan AR - Other	-1,460,772		-51,185	0	0	0	0	0	0	0	0	-1,511,957
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,502,541		48,557	0	0	0	0	0	0	0	0	1,551,097
	825-Clearings	-1,948,256		397,159	0	0	0	0	0	0	0	0	-1,551,097
	Clr Sum	-1,948,256		397,159	0	0	0	0	0	0	0	0	-1,551,097
	Proj Net	-445,715		445,715	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116330	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	7,832	0	0	0	0	0	0	0	0	0	0	0	0	7,832
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	274,312	0	0	0	0	0	0	0	0	0	0	0	0	274,312
	370-Outside Services	2,620,000	0	0	0	0	0	0	0	0	0	0	0	0	2,620,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	7,256	0	0	0	0	0	0	0	0	0	0	0	0	7,256
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	528	0	0	0	0	0	0	0	0	0	0	0	0	528
	914-Pension and Benefits Load	2,374	0	0	0	0	0	0	0	0	0	0	0	0	2,374
	915-Injuries and Damages Load	370	0	0	0	0	0	0	0	0	0	0	0	0	370
	918-San Juan AR-Labor	-5,552	0	0	0	0	0	0	0	0	0	0	0	0	-5,552
	921-Stores / Purchasing Load	20,671	0	0	0	0	0	0	0	0	0	0	0	0	20,671
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	32,721	0	0	0	0	0	0	0	0	0	0	0	0	32,721
	926-A and G Loads	68,953	0	0	0	0	0	0	0	0	0	0	0	0	68,953
	928-AFUDC Debt Reg	13,952	0	0	0	0	0	0	0	0	0	0	0	0	13,952
	929-AFUDC - Equity Regular	19,636	0	0	0	0	0	0	0	0	0	0	0	0	19,636
	937-San Juan AR - Other	-1,511,957	0	0	0	0	0	0	0	0	0	0	0	0	-1,511,957
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	1,551,097	0	0	0	0	0	0	0	0	0	0	0	0	1,551,097
	825-Clearings	-1,551,097	0	0	0	0	0	0	0	0	0	0	0	0	-1,551,097
	Clr Sum	-1,551,097	0	0	0	0	0	0	0	0	0	0	0	0	-1,551,097
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116330	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	7,832	0	0	0	0	0	0	0	0	0	0	0	0	7,832	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	274,312	0	0	0	0	0	0	0	0	0	0	0	0	274,312	
370-Outside Services	2,620,000	0	0	0	0	0	0	0	0	0	0	0	0	2,620,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	7,256	0	0	0	0	0	0	0	0	0	0	0	0	7,256	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	528	0	0	0	0	0	0	0	0	0	0	0	0	528	
914-Pension and Benefits Load	2,374	0	0	0	0	0	0	0	0	0	0	0	0	2,374	
915-Injuries and Damages Load	370	0	0	0	0	0	0	0	0	0	0	0	0	370	
918-San Juan AR-Labor	-5,552	0	0	0	0	0	0	0	0	0	0	0	0	-5,552	
921-Stores / Purchasing Load	20,671	0	0	0	0	0	0	0	0	0	0	0	0	20,671	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	32,721	0	0	0	0	0	0	0	0	0	0	0	0	32,721	
926-A and G Loads	68,953	0	0	0	0	0	0	0	0	0	0	0	0	68,953	
928-AFUDC Debt Reg	13,952	0	0	0	0	0	0	0	0	0	0	0	0	13,952	
929-AFUDC - Equity Regular	19,636	0	0	0	0	0	0	0	0	0	0	0	0	19,636	
937-San Juan AR - Other	-1,511,957	0	0	0	0	0	0	0	0	0	0	0	0	-1,511,957	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	1,551,097	0	0	0	0	0	0	0	0	0	0	0	0	1,551,097	
825-Clearings	-1,551,097	0	0	0	0	0	0	0	0	0	0	0	0	-1,551,097	
Clr Sum	-1,551,097	0	0	0	0	0	0	0	0	0	0	0	0	-1,551,097	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76116335 Unit 1 Platforms - 2016***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 5/1/2016 Estimated Completion Date 8/30/2016

List Interim In-Service Dates

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Project Need Justification

Routine major maintenance activities that meet the criteria for capitalization are necessary to keep site buildings, access ways, lighting and infrastructure in a safe and reliable condition. This project is part of several projects (76116328, 76116334, 76116335, 76416127, 76416128, 76516036, 76516117, 76516717, 76616231, 76616536, 76617515, 76116114, 76116331, 76117514, 76517524, 76616028, 76616054, 76616115, 76617915, 76716220) that relate to building and structure

maintenance requirements. These projects, include replacing roof systems that have had a normal life expectancy and require replacement due to the fact they are reaching the end of life, attending to aging coating systems (typically paint), designing and constructing access platforms to address safety issues, and purchasing scaffolding to reduce rental expense.

Project Alternatives

Building maintenance activities have no alternatives as long as the facilities are occupied and used for production. There is some discretion in the timing of these investments and typically they are arranged (when possible) in years when there are no planned outages as projects in non-outage years typically have less project management demands and lower capital funding requirements.

Technical Aspects

Construct steel framed structures with grating surfaces to enhance access to equipment. Platforms are typically steel frames with grating surfaces and either stair risers and stringers or caged ladders.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116335	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	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
	929-AFUDC - Equity Regular	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
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	0	0	0	0
	825-Clearings	0		0	0	0	0	0	0	0	0	0	0
	Clr Sum	0		0	0	0	0	0	0	0	0	0	0
	Proj Net	0		0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116335	Year	2016												
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	50,000	50,000	0	0	0	0	0	100,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	0	0	0	0	0	1,185	1,185	0	0	0	0	0	2,370	
928-AFUDC Debt Reg	0	0	0	0	0	0	22	67	0	0	0	0	0	89	
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	-25,593	-25,593	0	0	0	0	0	-51,186	
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	25,614	25,659	0	0	0	0	0	51,273	
825-Clearings	0	0	0	0	0	0	0	-51,275	0	0	0	0	0	-51,275	
Clr Sum	0	0	0	0	0	0	0	-51,275	0	0	0	0	0	-51,275	
Proj Net	0	0	0	0	0	0	25,614	-25,616	0	0	0	0	0	-2	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116335	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	2,370	0	0	0	0	0	0	0	0	0	0	0	0	2,370
	928-AFUDC Debt Reg	89	0	0	0	0	0	0	0	0	0	0	0	0	89
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-51,186	0	0	0	0	0	0	0	0	0	0	0	0	-51,186
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	51,273	0	0	0	0	0	0	0	0	0	0	0	0	51,273
	825-Clearings	-51,275	0	0	0	0	0	0	0	0	0	0	0	0	-51,275
	Clr Sum	-51,275	0	0	0	0	0	0	0	0	0	0	0	0	-51,275
	Proj Net	-2	0	0	0	0	0	0	0	0	0	0	0	0	-2

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***Project No: 76116415 Unit 1 Economizer CO Controls***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2016 Estimated Completion Date 5/30/2016

List Interim In-Service Dates

0

Project Need Justification

This project is one of several projects (see also 76116415, 76116512, 76117432, 76416715, 76417515, 76416215) that relate to the operation of the boiler and combustion optimization. Combustion optimization, steam temperature control and leak detection are all elements of boiler operation which have a direct impact on fuel efficiency and cost of generation. The amount of oxygen and carbon monoxide leaving the boiler reflects the completeness of combustion. The original design had only minimal oxygen and carbon monoxide sensing devices. Early detection of tube leaks allow operators to shut down the boiler before extensive damage occurs. Fine control of steam temperatures are accomplished by using attemperator spray valves. The valves on Unit 4 are in poor condition and require replacement.

Project Alternatives

There is no technical alternative to replacing the attemperator spray valves. This is a maintenance activity that meets the criteria for capitalization. The other projects will produce paybacks of reduced fuel consumption and higher boiler reliability.

Technical Aspects

Install sensing devices, transmitters, analytical software and controls to enhance combustion based on carbon monoxide readings at the boiler exit.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116415	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	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
	929-AFUDC - Equity Regular	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
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	0	0	0	0
	825-Clearings	0		0	0	0	0	0	0	0	0	0	0
	Clr Sum	0		0	0	0	0	0	0	0	0	0	0
	Proj Net	0		0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116415	Year	2016												
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	20,000	20,000	20,000	20,000	0	0	0	0	0	0	0	0	80,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	474	474	474	474	0	0	0	0	0	0	0	0	1,896	
928-AFUDC Debt Reg	0	9	27	45	63	0	0	0	0	0	0	0	0	144	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
937-San Juan AR - Other	0	-10,237	-10,237	-10,237	-10,237	0	0	0	0	0	0	0	0	-40,948	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	10,246	10,264	10,282	10,300	0	0	0	0	0	0	0	0	41,092	
825-Clearings	0	0	0	0	-41,092	0	0	0	0	0	0	0	0	-41,092	
Clr Sum	0	0	0	0	-41,092	0	0	0	0	0	0	0	0	-41,092	
Proj Net	0	10,246	10,264	10,282	-30,792	0	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76116415	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	80,000	0	0	0	0	0	0	0	0	0	0	0	0	80,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	1,896	0	0	0	0	0	0	0	0	0	0	0	0	1,896	
928-AFUDC Debt Reg	144	0	0	0	0	0	0	0	0	0	0	0	0	144	
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
937-San Juan AR - Other	-40,948	0	0	0	0	0	0	0	0	0	0	0	0	-40,948	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	41,092	0	0	0	0	0	0	0	0	0	0	0	0	41,092	
825-Clearings	-41,092	0	0	0	0	0	0	0	0	0	0	0	0	-41,092	
Clr Sum	-41,092	0	0	0	0	0	0	0	0	0	0	0	0	-41,092	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

***Project No: 76116512 SJ U1 Acoustic Leak Detection System Installation***

Company: 003  
Location: 761 San Juan

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 5/1/2015

List Interim In-Service Dates

0

Project Need Justification

This project is one of several projects (see also 76116415, 76116512, 76117432, 76416715, 76417515, 76416215) that relate to the operation of the boiler and combustion optimization. Combustion optimization, steam temperature control and leak detection are all elements of boiler operation which have a direct impact on fuel efficiency and cost of generation. The amount of oxygen and carbon monoxide leaving the boiler reflects the completeness of combustion. The original design had only minimal oxygen and carbon monoxide sensing devices. Early detection of tube leaks allow operators to shut down the boiler before extensive damage occurs. Fine control of steam temperatures are accomplished by using attemperator spray valves. The valves on Unit 4 are in poor condition and require replacement.

Project Alternatives

There is no technical alternative to replacing the attemperator spray valves. This is a maintenance activity that meets the criteria for capitalization. The other projects will produce paybacks of reduced fuel consumption and higher boiler reliability.

Technical Aspects

Install sensing devices, transmitters, and analytical software to detect boiler tube leaks based on sound waves generated by escaping steam. The system has a computer model of the boiler to help pinpoint the location of the leak.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76116512	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,081		0	0	0	0	0	0	0	0	0	4,081
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	4,881		0	0	0	0	0	0	0	0	0	4,881
	370-Outside Services	136,525		0	0	0	0	0	0	0	0	0	136,525
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	275		0	0	0	0	0	0	0	0	0	275
	914-Pension and Benefits Load	1,211		0	0	0	0	0	0	0	0	0	1,211
	915-Injuries and Damages Load	103		0	0	0	0	0	0	0	0	0	103
	918-San Juan AR-Labor	-2,835		0	0	0	0	0	0	0	0	0	-2,835
	921-Stores / Purchasing Load	945		0	0	0	0	0	0	0	0	0	945
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	178		0	0	0	0	0	0	0	0	0	178
	926-A and G Loads	3,557		0	0	0	0	0	0	0	0	0	3,557
	928-AFUDC Debt Reg	6,263		233	0	0	0	0	0	0	0	0	6,496
	929-AFUDC - Equity Regular	8,216		332	0	0	0	0	0	0	0	0	8,548
	937-San Juan AR - Other	-73,043		0	0	0	0	0	0	0	0	0	-73,043
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	90,357		565	0	0	0	0	0	0	0	0	90,922
	825-Clearings	0		-90,922	0	0	0	0	0	0	0	0	-90,922
	Clr Sum	0		-90,922	0	0	0	0	0	0	0	0	-90,922
	Proj Net	90,357		-90,357	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76116512	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	4,081	0	0	0	0	0	0	0	0	0	0	0	0	4,081
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	4,881	0	0	0	0	0	0	0	0	0	0	0	0	4,881
	370-Outside Services	136,525	0	0	0	0	0	0	0	0	0	0	0	0	136,525
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	275	0	0	0	0	0	0	0	0	0	0	0	0	275
	914-Pension and Benefits Load	1,211	0	0	0	0	0	0	0	0	0	0	0	0	1,211
	915-Injuries and Damages Load	103	0	0	0	0	0	0	0	0	0	0	0	0	103
	918-San Juan AR-Labor	-2,835	0	0	0	0	0	0	0	0	0	0	0	0	-2,835
	921-Stores / Purchasing Load	945	0	0	0	0	0	0	0	0	0	0	0	0	945
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	178	0	0	0	0	0	0	0	0	0	0	0	0	178
	926-A and G Loads	3,557	0	0	0	0	0	0	0	0	0	0	0	0	3,557
	928-AFUDC Debt Reg	6,496	0	0	0	0	0	0	0	0	0	0	0	0	6,496
	929-AFUDC - Equity Regular	8,548	0	0	0	0	0	0	0	0	0	0	0	0	8,548
	937-San Juan AR - Other	-73,043	0	0	0	0	0	0	0	0	0	0	0	0	-73,043
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	90,922	0	0	0	0	0	0	0	0	0	0	0	0	90,922
	825-Clearings	-90,922	0	0	0	0	0	0	0	0	0	0	0	0	-90,922
	Clr Sum	-90,922	0	0	0	0	0	0	0	0	0	0	0	0	-90,922
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project 76116512	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	4,081	0	0	0	0	0	0	0	0	0	0	0	0	4,081
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	4,881	0	0	0	0	0	0	0	0	0	0	0	0	4,881
370-Outside Services	136,525	0	0	0	0	0	0	0	0	0	0	0	0	136,525
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	275	0	0	0	0	0	0	0	0	0	0	0	0	275
914-Pension and Benefits Load	1,211	0	0	0	0	0	0	0	0	0	0	0	0	1,211
915-Injuries and Damages Load	103	0	0	0	0	0	0	0	0	0	0	0	0	103
918-San Juan AR-Labor	-2,835	0	0	0	0	0	0	0	0	0	0	0	0	-2,835
921-Stores / Purchasing Load	945	0	0	0	0	0	0	0	0	0	0	0	0	945
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	178	0	0	0	0	0	0	0	0	0	0	0	0	178
926-A and G Loads	3,557	0	0	0	0	0	0	0	0	0	0	0	0	3,557
928-AFUDC Debt Reg	6,496	0	0	0	0	0	0	0	0	0	0	0	0	6,496
929-AFUDC - Equity Regular	8,548	0	0	0	0	0	0	0	0	0	0	0	0	8,548
937-San Juan AR - Other	-73,043	0	0	0	0	0	0	0	0	0	0	0	0	-73,043
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	90,922	0	0	0	0	0	0	0	0	0	0	0	0	90,922
825-Clearings	-90,922	0	0	0	0	0	0	0	0	0	0	0	0	-90,922
Clr Sum	-90,922	0	0	0	0	0	0	0	0	0	0	0	0	-90,922
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76117315 Condenser Dog Bone Expansion Joint***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 2/27/2015 Estimated Completion Date 4/30/2015

List Interim In-Service Dates

Project Need Justification

During an outage inspection, it was observed that the expansion joint between the condenser and the Unit 1 low pressure turbine shell had failed. This expansion joint is commonly known as the "dog bone" expansion joint. Failure of the expansion joint makes it impossible to establish the proper operating conditions to run the turbine. This is necessary maintenance that meets the criteria for capitalization.

Project Alternatives

As this is required maintenance, there are no technical alternatives.

Technical Aspects

In kind replacement of the expansion joint between the condenser and the low pressure turbine shell.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117315	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	90,093		0	0	0	0	0	0	0	0	0	90,093
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	964		0	0	0	0	0	0	0	0	0	964
	926-A and G Loads	2,135		0	0	0	0	0	0	0	0	0	2,135
	928-AFUDC Debt Reg	61		120	0	0	0	0	0	0	0	0	181
	929-AFUDC - Equity Regular	93		172	0	0	0	0	0	0	0	0	265
	937-San Juan AR - Other	-46,596		0	0	0	0	0	0	0	0	0	-46,596
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	46,750		292	0	0	0	0	0	0	0	0	47,042
	825-Clearings	0		-47,042	0	0	0	0	0	0	0	0	-47,042
	Clr Sum	0		-47,042	0	0	0	0	0	0	0	0	-47,042
	Proj Net	46,750		-46,750	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117315	Year	2016												
	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	90,093	0	0	0	0	0	0	0	0	0	0	0	0	90,093
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	964	0	0	0	0	0	0	0	0	0	0	0	0	964
	926-A and G Loads	2,135	0	0	0	0	0	0	0	0	0	0	0	0	2,135
	928-AFUDC Debt Reg	181	0	0	0	0	0	0	0	0	0	0	0	0	181
	929-AFUDC - Equity Regular	265	0	0	0	0	0	0	0	0	0	0	0	0	265
	937-San Juan AR - Other	-46,596	0	0	0	0	0	0	0	0	0	0	0	0	-46,596
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	47,042	0	0	0	0	0	0	0	0	0	0	0	0	47,042
	825-Clearings	-47,042	0	0	0	0	0	0	0	0	0	0	0	0	-47,042
	Clr Sum	-47,042	0	0	0	0	0	0	0	0	0	0	0	0	-47,042
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117315	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	90,093	0	0	0	0	0	0	0	0	0	0	0	0	90,093
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	964	0	0	0	0	0	0	0	0	0	0	0	0	964
926-A and G Loads	2,135	0	0	0	0	0	0	0	0	0	0	0	0	2,135
928-AFUDC Debt Reg	181	0	0	0	0	0	0	0	0	0	0	0	0	181
929-AFUDC - Equity Regular	265	0	0	0	0	0	0	0	0	0	0	0	0	265
937-San Juan AR - Other	-46,596	0	0	0	0	0	0	0	0	0	0	0	0	-46,596
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	47,042	0	0	0	0	0	0	0	0	0	0	0	0	47,042
825-Clearings	-47,042	0	0	0	0	0	0	0	0	0	0	0	0	-47,042
Clr Sum	-47,042	0	0	0	0	0	0	0	0	0	0	0	0	-47,042
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76117742 Pulverizer Housing Ceramic Installation***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 2/16/2015 Estimated Completion Date 5/1/2015

List Interim In-Service Dates

Unit 1 related projects will be in service on April 15, 2015.

Project Need Justification

This project is part of a group of projects (group includes 76216323, 76217421, 76117742, 76416634, 76516034 ) that involves routine maintenance to San Juan Generating Stations' boiler systems (such as feeders, pulverizers, coal piping, burners, etc.).

The equipment which prepares and delivers fuel to the boilers consist of many high wear components that require routine replacement. Major maintenance activities on this equipment meet the criteria for capitalization. Routine maintenance is necessary to sustain reliable operation of the generating unit.

This project is to install ceramic tiles and/or trowelable ceramic coating to prevent wear in the bowl section of the pulverizers.

Project Alternatives

As these are major maintenance activities designed to return the systems from worn conditions back to original design specifications, there are no technical alternatives. These activities are mostly remove and replace in-kind with some material upgrades, such as the addition of ceramic liners in the pulverizer bowl sections. Operational alternatives would be to reduce unit output but this is not a viable alternative.

Technical Aspects

This project will install ceramic tiles and/or trowelable ceramic coating to prevent wear in the bowl section of the pulverizers.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117742	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,111		0	0	0	0	0	0	0	0	0	3,111
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	61,629		0	0	0	0	0	0	0	0	0	61,629
	370-Outside Services	20,784		0	0	0	0	0	0	0	0	0	20,784
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	6,172		0	0	0	0	0	0	0	0	0	6,172
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	210		0	0	0	0	0	0	0	0	0	210
	914-Pension and Benefits Load	894		0	0	0	0	0	0	0	0	0	894
	915-Injuries and Damages Load	84		0	0	0	0	0	0	0	0	0	84
	918-San Juan AR-Labor	-2,150		0	0	0	0	0	0	0	0	0	-2,150
	921-Stores / Purchasing Load	557		0	0	0	0	0	0	0	0	0	557
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,619		0	0	0	0	0	0	0	0	0	1,619
	926-A and G Loads	2,173		0	0	0	0	0	0	0	0	0	2,173
	928-AFUDC Debt Reg	751		130	0	0	0	0	0	0	0	0	881
	929-AFUDC - Equity Regular	1,096		186	0	0	0	0	0	0	0	0	1,282
	937-San Juan AR - Other	-46,467		0	0	0	0	0	0	0	0	0	-46,467
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	50,463		316	0	0	0	0	0	0	0	0	50,779
	825-Clearings	0		-50,779	0	0	0	0	0	0	0	0	-50,779
	Clr Sum	0		-50,779	0	0	0	0	0	0	0	0	-50,779
Proj Net		50,463		-50,463	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117742	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	3,111	0	0	0	0	0	0	0	0	0	0	0	0	3,111
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	61,629	0	0	0	0	0	0	0	0	0	0	0	0	61,629
	370-Outside Services	20,784	0	0	0	0	0	0	0	0	0	0	0	0	20,784
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	6,172	0	0	0	0	0	0	0	0	0	0	0	0	6,172
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	210	0	0	0	0	0	0	0	0	0	0	0	0	210
	914-Pension and Benefits Load	894	0	0	0	0	0	0	0	0	0	0	0	0	894
	915-Injuries and Damages Load	84	0	0	0	0	0	0	0	0	0	0	0	0	84
	918-San Juan AR-Labor	-2,150	0	0	0	0	0	0	0	0	0	0	0	0	-2,150
	921-Stores / Purchasing Load	557	0	0	0	0	0	0	0	0	0	0	0	0	557
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,619	0	0	0	0	0	0	0	0	0	0	0	0	1,619
	926-A and G Loads	2,173	0	0	0	0	0	0	0	0	0	0	0	0	2,173
	928-AFUDC Debt Reg	881	0	0	0	0	0	0	0	0	0	0	0	0	881
	929-AFUDC - Equity Regular	1,282	0	0	0	0	0	0	0	0	0	0	0	0	1,282
	937-San Juan AR - Other	-46,467	0	0	0	0	0	0	0	0	0	0	0	0	-46,467
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	50,779	0	0	0	0	0	0	0	0	0	0	0	0	50,779
	825-Clearings	-50,779	0	0	0	0	0	0	0	0	0	0	0	0	-50,779
	Clr Sum	-50,779	0	0	0	0	0	0	0	0	0	0	0	0	-50,779
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117742	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	3,111	0	0	0	0	0	0	0	0	0	0	0	0	3,111	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	61,629	0	0	0	0	0	0	0	0	0	0	0	0	61,629	
370-Outside Services	20,784	0	0	0	0	0	0	0	0	0	0	0	0	20,784	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	6,172	0	0	0	0	0	0	0	0	0	0	0	0	6,172	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	210	0	0	0	0	0	0	0	0	0	0	0	0	210	
914-Pension and Benefits Load	894	0	0	0	0	0	0	0	0	0	0	0	0	894	
915-Injuries and Damages Load	84	0	0	0	0	0	0	0	0	0	0	0	0	84	
918-San Juan AR-Labor	-2,150	0	0	0	0	0	0	0	0	0	0	0	0	-2,150	
921-Stores / Purchasing Load	557	0	0	0	0	0	0	0	0	0	0	0	0	557	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	1,619	0	0	0	0	0	0	0	0	0	0	0	0	1,619	
926-A and G Loads	2,173	0	0	0	0	0	0	0	0	0	0	0	0	2,173	
928-AFUDC Debt Reg	881	0	0	0	0	0	0	0	0	0	0	0	0	881	
929-AFUDC - Equity Regular	1,282	0	0	0	0	0	0	0	0	0	0	0	0	1,282	
937-San Juan AR - Other	-46,467	0	0	0	0	0	0	0	0	0	0	0	0	-46,467	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	50,779	0	0	0	0	0	0	0	0	0	0	0	0	50,779	
825-Clearings	-50,779	0	0	0	0	0	0	0	0	0	0	0	0	-50,779	
Clr Sum	-50,779	0	0	0	0	0	0	0	0	0	0	0	0	-50,779	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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***Project No: 76117746 Unit 1 Demister Pad Replacement***

Company: 003  
Location: 761 San Juan

**Project Information**

Construction Start Date 1/1/2015 Estimated Completion Date 4/15/2015

List Interim In-Service Dates

0

Project Need Justification

The flue gas desulfurization (FGD) systems are pollution control systems designed to remove sulfur dioxide (SO<sub>2</sub>) from the gases generated by burning coal. Major maintenance activities on these systems meet the criteria for capitalization. These major maintenance activities occur during planned unit outages with durations between 20 and 50 days. San Juan Unit 1 and San Juan Unit 4 both have planned outages of 50 days in 2015. These activities are necessary to maintain compliance with the Title V Air Permit which, among other things, regulates the emission rate for SO<sub>2</sub>. Poor performance of the FGD systems will result in either reduced unit output capacity (production of fewer megawatt hours) or out of compliance operation which can result in fines or penalties.

Project Alternatives

This is a major maintenance activity designed to return the systems from worn conditions back to original design specifications, there are no technical alternatives. These activities are mostly remove and replace in-kind with some material upgrades. Operational alternatives would be to reduce unit output but this is not a viable alternative as it would result in higher cost per megawatt hour.

Technical Aspects

In kind replacement of plastic chevrons and supports.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117746	Year	2015											
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
	110-Straight Time-General	9,354		0	0	0	0	0	0	0	0	0	9,354	
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0	
	350-Material Issues-Major	59,110		0	0	0	0	0	0	0	0	0	59,110	
	370-Outside Services	91,491		0	0	0	0	0	0	0	0	0	91,491	
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0	
	377-Outside Services-Temp Labor	7,349		0	0	0	0	0	0	0	0	0	7,349	
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0	
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0	
	807-Non Refundable Contribution	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	
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0	
	913-Payroll Taxes Load	630		0	0	0	0	0	0	0	0	0	630	
	914-Pension and Benefits Load	2,838		0	0	0	0	0	0	0	0	0	2,838	
	915-Injuries and Damages Load	445		0	0	0	0	0	0	0	0	0	445	
	918-San Juan AR-Labor	-6,634		0	0	0	0	0	0	0	0	0	-6,634	
	921-Stores / Purchasing Load	1,007		0	0	0	0	0	0	0	0	0	1,007	
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0	
	925-E and S Loads	2,383		0	0	0	0	0	0	0	0	0	2,383	
	926-A and G Loads	3,965		0	0	0	0	0	0	0	0	0	3,965	
	928-AFUDC Debt Reg	605		-35	0	0	0	0	0	0	0	0	570	
	929-AFUDC - Equity Regular	891		-49	0	0	0	0	0	0	0	0	842	
	937-San Juan AR - Other	-82,653		0	0	0	0	0	0	0	0	0	-82,653	
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0	
	Cost Sum	90,782		-84	0	0	0	0	0	0	0	0	90,698	
	825-Clearings	-104,204		13,505	0	0	0	0	0	0	0	0	-90,698	
	Clr Sum	-104,204		13,505	0	0	0	0	0	0	0	0	-90,698	
	Proj Net	-13,421		13,421	0	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117746	Year	2016												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	9,354	0	0	0	0	0	0	0	0	0	0	0	0	9,354	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	59,110	0	0	0	0	0	0	0	0	0	0	0	0	59,110	
370-Outside Services	91,491	0	0	0	0	0	0	0	0	0	0	0	0	91,491	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	7,349	0	0	0	0	0	0	0	0	0	0	0	0	7,349	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	630	0	0	0	0	0	0	0	0	0	0	0	0	630	
914-Pension and Benefits Load	2,838	0	0	0	0	0	0	0	0	0	0	0	0	2,838	
915-Injuries and Damages Load	445	0	0	0	0	0	0	0	0	0	0	0	0	445	
918-San Juan AR-Labor	-6,634	0	0	0	0	0	0	0	0	0	0	0	0	-6,634	
921-Stores / Purchasing Load	1,007	0	0	0	0	0	0	0	0	0	0	0	0	1,007	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	2,383	0	0	0	0	0	0	0	0	0	0	0	0	2,383	
926-A and G Loads	3,965	0	0	0	0	0	0	0	0	0	0	0	0	3,965	
928-AFUDC Debt Reg	570	0	0	0	0	0	0	0	0	0	0	0	0	570	
929-AFUDC - Equity Regular	842	0	0	0	0	0	0	0	0	0	0	0	0	842	
937-San Juan AR - Other	-82,653	0	0	0	0	0	0	0	0	0	0	0	0	-82,653	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	90,698	0	0	0	0	0	0	0	0	0	0	0	0	90,698	
825-Clearings	-90,698	0	0	0	0	0	0	0	0	0	0	0	0	-90,698	
Clr Sum	-90,698	0	0	0	0	0	0	0	0	0	0	0	0	-90,698	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project 76117746	Year	2017													
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	9,354	0	0	0	0	0	0	0	0	0	0	0	0	9,354	
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350-Material Issues-Major	59,110	0	0	0	0	0	0	0	0	0	0	0	0	59,110	
370-Outside Services	91,491	0	0	0	0	0	0	0	0	0	0	0	0	91,491	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	7,349	0	0	0	0	0	0	0	0	0	0	0	0	7,349	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	630	0	0	0	0	0	0	0	0	0	0	0	0	630	
914-Pension and Benefits Load	2,838	0	0	0	0	0	0	0	0	0	0	0	0	2,838	
915-Injuries and Damages Load	445	0	0	0	0	0	0	0	0	0	0	0	0	445	
918-San Juan AR-Labor	-6,634	0	0	0	0	0	0	0	0	0	0	0	0	-6,634	
921-Stores / Purchasing Load	1,007	0	0	0	0	0	0	0	0	0	0	0	0	1,007	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	2,383	0	0	0	0	0	0	0	0	0	0	0	0	2,383	
926-A and G Loads	3,965	0	0	0	0	0	0	0	0	0	0	0	0	3,965	
928-AFUDC Debt Reg	570	0	0	0	0	0	0	0	0	0	0	0	0	570	
929-AFUDC - Equity Regular	842	0	0	0	0	0	0	0	0	0	0	0	0	842	
937-San Juan AR - Other	-82,653	0	0	0	0	0	0	0	0	0	0	0	0	-82,653	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	90,698	0	0	0	0	0	0	0	0	0	0	0	0	90,698	
825-Clearings	-90,698	0	0	0	0	0	0	0	0	0	0	0	0	-90,698	
Clr Sum	-90,698	0	0	0	0	0	0	0	0	0	0	0	0	-90,698	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76117747 Unit 1 Relay Protection-2015***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 12/30/2015

List Interim In-Service Dates

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Project Need Justification

This project is part of a group of projects (see also 76116513, 76117733, 76117747, 76416134, 76616036, 77916136, 77917925, 76617132, 76416424 ) that addresses equipment obsolescence issues and new standards for exposure to potential arc flash energy. Protective relay technology has moved from electromechanical devices to solid state devices. Electromechanical relays are becoming obsolete. OSHA regulations regarding exposure to potential arc flash energy have become more stringent since the San Juan Plant was designed and constructed. Solid state relays can be used to control arc flash incident energy.

Project Alternatives

The existing electromechanical relays could continue to be maintained but the task will become increasingly difficult as parts become less available. The alternative for compliance with arc flash exposure standards is personal protective equipment for employees assigned to task where arc flash exposure occurs.

Technical Aspects

Replace obsolete electromechanical relays with solid state devices. This project is part of a multiyear program to replace electromechanical relays with solid state relays. The relays are located in all areas of the plant - each unit, common areas and the switchyard.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117747	Year	2015										
Cost_Type	Bal 3/31/15			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	5,540			0	0	0	0	0	0	0	0	0	5,540
120-Overtime-General	6,767			0	0	0	0	0	0	0	0	0	6,767
350-Material Issues-Major	41,078			0	0	0	0	0	0	0	0	0	41,078
370-Outside Services	112,845			14,250	3,950	0	0	0	0	0	0	0	131,045
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0
610-Expenses - General	240			0	0	0	0	0	0	0	0	0	240
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0			0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	829			0	0	0	0	0	0	0	0	0	829
914-Pension and Benefits Load	1,647			0	0	0	0	0	0	0	0	0	1,647
915-Injuries and Damages Load	554			0	0	0	0	0	0	0	0	0	554
918-San Juan AR-Labor	-7,668			0	0	0	0	0	0	0	0	0	-7,668
921-Stores / Purchasing Load	1,176			0	0	0	0	0	0	0	0	0	1,176
922-Minor Material Load	0			0	0	0	0	0	0	0	0	0	0
925-E and S Loads	2,104			0	0	0	0	0	0	0	0	0	2,104
926-A and G Loads	3,945			338	94	0	0	0	0	0	0	0	4,377
928-AFUDC Debt Reg	370			239	3	5	5	5	5	5	5	5	649
929-AFUDC - Equity Regular	544			342	4	7	8	8	8	8	8	8	943
937-San Juan AR - Other	-80,695			-7,294	-2,022	0	0	0	0	0	0	0	-90,011
961-Luna A&G PNM D&V	0			0	0	0	0	0	0	0	0	0	0
Cost Sum	89,277			7,875	2,028	13	13	13	13	13	13	13	99,271
825-Clearings	0			-97,152	0	0	0	0	0	0	0	0	-97,152
Clr Sum	0			-97,152	0	0	0	0	0	0	0	0	-97,152
Proj Net	89,277			-89,277	2,028	13	13	13	13	13	13	13	2,119

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117747	Year	2016												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	5,540	0	0	0	0	0	0	0	0	0	0	0	0	5,540	
120-Overtime-General	6,767	0	0	0	0	0	0	0	0	0	0	0	0	6,767	
350-Material Issues-Major	41,078	0	0	0	0	0	0	0	0	0	0	0	0	41,078	
370-Outside Services	131,045	0	0	0	0	0	0	0	0	0	0	0	0	131,045	
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	240	0	0	0	0	0	0	0	0	0	0	0	0	240	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	829	0	0	0	0	0	0	0	0	0	0	0	0	829	
914-Pension and Benefits Load	1,647	0	0	0	0	0	0	0	0	0	0	0	0	1,647	
915-Injuries and Damages Load	554	0	0	0	0	0	0	0	0	0	0	0	0	554	
918-San Juan AR-Labor	-7,668	0	0	0	0	0	0	0	0	0	0	0	0	-7,668	
921-Stores / Purchasing Load	1,176	0	0	0	0	0	0	0	0	0	0	0	0	1,176	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	2,104	0	0	0	0	0	0	0	0	0	0	0	0	2,104	
926-A and G Loads	4,377	0	0	0	0	0	0	0	0	0	0	0	0	4,377	
928-AFUDC Debt Reg	649	4	4	4	4	4	4	4	4	4	4	4	4	697	
929-AFUDC - Equity Regular	943	0	0	0	0	0	0	0	0	0	0	0	0	943	
937-San Juan AR - Other	-90,011	0	0	0	0	0	0	0	0	0	0	0	0	-90,011	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	99,271	4	4	4	4	4	4	4	4	4	4	4	4	99,319	
825-Clearings	-97,152	0	0	0	0	0	0	0	0	0	0	0	0	-97,152	
Clr Sum	-97,152	0	0	0	0	0	0	0	0	0	0	0	0	-97,152	
Proj Net	2,119	4	4	4	4	4	4	4	4	4	4	4	4	2,167	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117747	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	5,540	0	0	0	0	0	0	0	0	0	0	0	0	5,540	
120-Overtime-General	6,767	0	0	0	0	0	0	0	0	0	0	0	0	6,767	
350-Material Issues-Major	41,078	0	0	0	0	0	0	0	0	0	0	0	0	41,078	
370-Outside Services	131,045	0	0	0	0	0	0	0	0	0	0	0	0	131,045	
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	240	0	0	0	0	0	0	0	0	0	0	0	0	240	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	829	0	0	0	0	0	0	0	0	0	0	0	0	829	
914-Pension and Benefits Load	1,647	0	0	0	0	0	0	0	0	0	0	0	0	1,647	
915-Injuries and Damages Load	554	0	0	0	0	0	0	0	0	0	0	0	0	554	
918-San Juan AR-Labor	-7,668	0	0	0	0	0	0	0	0	0	0	0	0	-7,668	
921-Stores / Purchasing Load	1,176	0	0	0	0	0	0	0	0	0	0	0	0	1,176	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	2,104	0	0	0	0	0	0	0	0	0	0	0	0	2,104	
926-A and G Loads	4,377	0	0	0	0	0	0	0	0	0	0	0	0	4,377	
928-AFUDC Debt Reg	697	7	7	0	0	0	0	0	0	0	0	0	0	711	
929-AFUDC - Equity Regular	943	4	4	0	0	0	0	0	0	0	0	0	0	951	
937-San Juan AR - Other	-90,011	0	0	0	0	0	0	0	0	0	0	0	0	-90,011	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	99,319	11	11	0	0	0	0	0	0	0	0	0	0	99,341	
825-Clearings	-97,152	0	0	0	0	0	0	0	0	0	0	0	0	-97,152	
Clr Sum	-97,152	0	0	0	0	0	0	0	0	0	0	0	0	-97,152	
Proj Net	2,167	11	11	0	0	0	0	0	0	0	0	0	0	2,189	

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***Project No: 76117914 Unit 1 Expansion Joint Replacement - 2015***

Company: 003  
Location: 761 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 5/1/2015

List Interim In-Service Dates

0

Project Need Justification

The boiler and its exhaust gas ductwork system is second only to the turbine-generator in ranking of critical assets in a coal fired generating unit. Major maintenance activities on this asset meet the criteria for capitalization. These major maintenance activities occur during planned unit outages with durations between 20 and 50 days. San Juan Unit 1 has a planned outage of 50 days in 2015. The scope of work is driven by performance issues that have resulted in unscheduled and forced outages. These investments will address reliability issues.

Project 76117914 is budgeted for the cost of contract labor, materials, project management, general and administrative loads and AFUDC to replace expansion joints in the Unit 1 boiler exhaust ductwork. Expansion joints are necessary to accommodate the differential expansion that occurs from the various metallurgies that exist in the boiler exhaust path.

Project Alternatives

This project is specifically an in-kind replacement, in accordance with normal industry practice. Operational alternatives accept a lower unit reliability from expansion joint failures but this not viable alternatives. Under positive pressure operation, expansion joint failure require an immediate unit shutdown. Under balanced draft configuration, expansion joint failures can be tolerated for brief periods, as no fugitive exhausts are escaping, but still require a unit outage to repair.

Technical Aspects

The scope of work is the in-kind replacement of deteriorated and/or failed expansion joints. Most are fabric joints so the scope of work entails removal of the joint material and backing bars. If necessary the joint frames are cleaned and repaired and the new material and backing bars installed.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117914	Year	2015										
	Cost_Type	Bal 3/31/15		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,868		0	0	0	0	0	0	0	0	0	2,868
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	90,253		0	0	0	0	0	0	0	0	0	90,253
	370-Outside Services	253,092		93,000	0	0	0	0	0	0	0	0	346,092
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	9,769		0	0	0	0	0	0	0	0	0	9,769
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0		0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	193		0	0	0	0	0	0	0	0	0	193
	914-Pension and Benefits Load	826		0	0	0	0	0	0	0	0	0	826
	915-Injuries and Damages Load	80		0	0	0	0	0	0	0	0	0	80
	918-San Juan AR-Labor	-1,984		0	0	0	0	0	0	0	0	0	-1,984
	921-Stores / Purchasing Load	2,421		0	0	0	0	0	0	0	0	0	2,421
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,194		0	0	0	0	0	0	0	0	0	4,194
	926-A and G Loads	8,437		2,204	0	0	0	0	0	0	0	0	10,641
	928-AFUDC Debt Reg	515		-185	0	0	0	0	0	0	0	0	330
	929-AFUDC - Equity Regular	768		-264	0	0	0	0	0	0	0	0	504
	937-San Juan AR - Other	-184,083		-47,602	0	0	0	0	0	0	0	0	-231,685
	961-Luna A&G PNM D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	187,350		47,153	0	0	0	0	0	0	0	0	234,503
	825-Clearings	-282,932		48,429	0	0	0	0	0	0	0	0	-234,503
	Clr Sum	-282,932		48,429	0	0	0	0	0	0	0	0	-234,503
	Proj Net	-95,582		95,582	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117914	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,868	0	0	0	0	0	0	0	0	0	0	0	0	2,868
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	90,253	0	0	0	0	0	0	0	0	0	0	0	0	90,253
	370-Outside Services	346,092	0	0	0	0	0	0	0	0	0	0	0	0	346,092
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	9,769	0	0	0	0	0	0	0	0	0	0	0	0	9,769
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	193	0	0	0	0	0	0	0	0	0	0	0	0	193
	914-Pension and Benefits Load	826	0	0	0	0	0	0	0	0	0	0	0	0	826
	915-Injuries and Damages Load	80	0	0	0	0	0	0	0	0	0	0	0	0	80
	918-San Juan AR-Labor	-1,984	0	0	0	0	0	0	0	0	0	0	0	0	-1,984
	921-Stores / Purchasing Load	2,421	0	0	0	0	0	0	0	0	0	0	0	0	2,421
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,194	0	0	0	0	0	0	0	0	0	0	0	0	4,194
	926-A and G Loads	10,641	0	0	0	0	0	0	0	0	0	0	0	0	10,641
	928-AFUDC Debt Reg	330	0	0	0	0	0	0	0	0	0	0	0	0	330
	929-AFUDC - Equity Regular	504	0	0	0	0	0	0	0	0	0	0	0	0	504
	937-San Juan AR - Other	-231,685	0	0	0	0	0	0	0	0	0	0	0	0	-231,685
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	234,503	0	0	0	0	0	0	0	0	0	0	0	0	234,503
	825-Clearings	-234,503	0	0	0	0	0	0	0	0	0	0	0	0	-234,503
	Clr Sum	-234,503	0	0	0	0	0	0	0	0	0	0	0	0	-234,503
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117914	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,868	0	0	0	0	0	0	0	0	0	0	0	0	2,868
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	90,253	0	0	0	0	0	0	0	0	0	0	0	0	90,253
	370-Outside Services	346,092	0	0	0	0	0	0	0	0	0	0	0	0	346,092
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	9,769	0	0	0	0	0	0	0	0	0	0	0	0	9,769
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	193	0	0	0	0	0	0	0	0	0	0	0	0	193
	914-Pension and Benefits Load	826	0	0	0	0	0	0	0	0	0	0	0	0	826
	915-Injuries and Damages Load	80	0	0	0	0	0	0	0	0	0	0	0	0	80
	918-San Juan AR-Labor	-1,984	0	0	0	0	0	0	0	0	0	0	0	0	-1,984
	921-Stores / Purchasing Load	2,421	0	0	0	0	0	0	0	0	0	0	0	0	2,421
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,194	0	0	0	0	0	0	0	0	0	0	0	0	4,194
	926-A and G Loads	10,641	0	0	0	0	0	0	0	0	0	0	0	0	10,641
	928-AFUDC Debt Reg	330	0	0	0	0	0	0	0	0	0	0	0	0	330
	929-AFUDC - Equity Regular	504	0	0	0	0	0	0	0	0	0	0	0	0	504
	937-San Juan AR - Other	-231,685	0	0	0	0	0	0	0	0	0	0	0	0	-231,685
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	234,503	0	0	0	0	0	0	0	0	0	0	0	0	234,503
	825-Clearings	-234,503	0	0	0	0	0	0	0	0	0	0	0	0	-234,503
	Clr Sum	-234,503	0	0	0	0	0	0	0	0	0	0	0	0	-234,503
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

***Project No: 76117934 Unit 1 Absorber Recirc Isolation Valve Install***

Company: 003  
Location: 761 San Juan

Project Information  
Construction Start Date 1/1/2015 Estimated Completion Date 5/1/2015  
List Interim In-Service Dates  
0

Project Need Justification  
The absorber recycle pumps are part of the flue gas desulfurization (FGD) system which is a pollution control system designed to remove sulfur dioxide (SO2) from the gases generated by burning coal. In the current configuration, maintenance of the absorber recycle pumps can only be performed during unit outages. Installation of absorber recirculation isolation valves will allow for on-line maintenance of the absorber recycle pumps. This will increase unit reliability and sulfur dioxide removal efficiency. This is an opportunity or "pay-back" project.

Project Alternatives  
The alternative is to "do nothing" and not realize the gains in reliability and sulfur dioxide removal efficiency resulting from installation of the recirculation isolation valves.

Technical Aspects  
Install discharge isolation valves on the six absorber recycle pumps.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76117934	Year	2015										
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
	110-Straight Time-General	9,592	0	0	0	0	0	0	0	0	0	9,592	
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	
	350-Material Issues-Major	186,248	0	0	0	0	0	0	0	0	0	186,248	
	370-Outside Services	188,786	0	0	0	0	0	0	0	0	0	188,786	
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	
	377-Outside Services-Temp Labor	7,093	0	0	0	0	0	0	0	0	0	7,093	
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	
	807-Non Refundable Contribution	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	
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	
	913-Payroll Taxes Load	646	0	0	0	0	0	0	0	0	0	646	
	914-Pension and Benefits Load	2,882	0	0	0	0	0	0	0	0	0	2,882	
	915-Injuries and Damages Load	421	0	0	0	0	0	0	0	0	0	421	
	918-San Juan AR-Labor	-6,770	0	0	0	0	0	0	0	0	0	-6,770	
	921-Stores / Purchasing Load	2,487	0	0	0	0	0	0	0	0	0	2,487	
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	
	925-E and S Loads	4,631	0	0	0	0	0	0	0	0	0	4,631	
	926-A and G Loads	9,284	0	0	0	0	0	0	0	0	0	9,284	
	928-AFUDC Debt Reg	2,079	-131	0	0	0	0	0	0	0	0	1,948	
	929-AFUDC - Equity Regular	3,059	-187	0	0	0	0	0	0	0	0	2,872	
	937-San Juan AR - Other	-199,264	0	0	0	0	0	0	0	0	0	-199,264	
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	
	Cost Sum	211,173	-318	0	0	0	0	0	0	0	0	210,855	
	825-Clearings	-262,025	51,170	0	0	0	0	0	0	0	0	-210,855	
	Clr Sum	-262,025	51,170	0	0	0	0	0	0	0	0	-210,855	
	Proj Net	-50,852	50,852	0	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76117934	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	9,592	0	0	0	0	0	0	0	0	0	0	0	0	9,592
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	186,248	0	0	0	0	0	0	0	0	0	0	0	0	186,248
	370-Outside Services	188,786	0	0	0	0	0	0	0	0	0	0	0	0	188,786
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	7,093	0	0	0	0	0	0	0	0	0	0	0	0	7,093
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	646	0	0	0	0	0	0	0	0	0	0	0	0	646
	914-Pension and Benefits Load	2,882	0	0	0	0	0	0	0	0	0	0	0	0	2,882
	915-Injuries and Damages Load	421	0	0	0	0	0	0	0	0	0	0	0	0	421
	918-San Juan AR-Labor	-6,770	0	0	0	0	0	0	0	0	0	0	0	0	-6,770
	921-Stores / Purchasing Load	2,487	0	0	0	0	0	0	0	0	0	0	0	0	2,487
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,631	0	0	0	0	0	0	0	0	0	0	0	0	4,631
	926-A and G Loads	9,284	0	0	0	0	0	0	0	0	0	0	0	0	9,284
	928-AFUDC Debt Reg	1,948	0	0	0	0	0	0	0	0	0	0	0	0	1,948
	929-AFUDC - Equity Regular	2,872	0	0	0	0	0	0	0	0	0	0	0	0	2,872
	937-San Juan AR - Other	-199,264	0	0	0	0	0	0	0	0	0	0	0	0	-199,264
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	210,855	0	0	0	0	0	0	0	0	0	0	0	0	210,855
	825-Clearings	-210,855	0	0	0	0	0	0	0	0	0	0	0	0	-210,855
	Clr Sum	-210,855	0	0	0	0	0	0	0	0	0	0	0	0	-210,855
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76117934	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	9,592	0	0	0	0	0	0	0	0	0	0	0	0	9,592
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	186,248	0	0	0	0	0	0	0	0	0	0	0	0	186,248
	370-Outside Services	188,786	0	0	0	0	0	0	0	0	0	0	0	0	188,786
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	7,093	0	0	0	0	0	0	0	0	0	0	0	0	7,093
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	646	0	0	0	0	0	0	0	0	0	0	0	0	646
	914-Pension and Benefits Load	2,882	0	0	0	0	0	0	0	0	0	0	0	0	2,882
	915-Injuries and Damages Load	421	0	0	0	0	0	0	0	0	0	0	0	0	421
	918-San Juan AR-Labor	-6,770	0	0	0	0	0	0	0	0	0	0	0	0	-6,770
	921-Stores / Purchasing Load	2,487	0	0	0	0	0	0	0	0	0	0	0	0	2,487
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	4,631	0	0	0	0	0	0	0	0	0	0	0	0	4,631
	926-A and G Loads	9,284	0	0	0	0	0	0	0	0	0	0	0	0	9,284
	928-AFUDC Debt Reg	1,948	0	0	0	0	0	0	0	0	0	0	0	0	1,948
	929-AFUDC - Equity Regular	2,872	0	0	0	0	0	0	0	0	0	0	0	0	2,872
	937-San Juan AR - Other	-199,264	0	0	0	0	0	0	0	0	0	0	0	0	-199,264
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	210,855	0	0	0	0	0	0	0	0	0	0	0	0	210,855
	825-Clearings	-210,855	0	0	0	0	0	0	0	0	0	0	0	0	-210,855
	Clr Sum	-210,855	0	0	0	0	0	0	0	0	0	0	0	0	-210,855
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76316132 DEWATERING BIN STIFFENING***

Company: 003  
Location: 763 San Juan

Project Information

Construction Start Date 1/1/2014 Estimated Completion Date 3/31/2015

List Interim In-Service Dates

Project Need Justification

This project will repair ash dewatering bins for unit 3. Ash dewatering bins are necessary to handle coal combustion waste in accordance with environmental permits. They allow storage of bottom ash. Water drains from the bins through dewatering screens. Ash is then cleaned from the bins.

This equipment operates in a highly erosive environment and maintenance is required on a regular basis to address wear and tear from regular operations. This routine maintenance meets the criteria for capitalization.

Project Alternatives

As this is required maintenance, there are no technical alternatives. Components will be replaced with in-kind components.

Technical Aspects

The scope of work involves the in-kind replacement of system components to take the equipment from a worn condition back to the original design specifications.



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76316132	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	-598,461		0	0	0	0	0	0	0	0	0	-598,461
	370-Outside Services	598,461		0	0	0	0	0	0	0	0	0	598,461
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
914-Pension and Benefits Load		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
	918-San Juan AR-Labor	0		0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		3,897		0	0	0	0	0	0	0	0	0	3,897
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	-11,969		0	0	0	0	0	0	0	0	0	-11,969
	926-A and G Loads	203		0	0	0	0	0	0	0	0	0	203
	928-AFUDC Debt Reg	10,216		50	0	0	0	0	0	0	0	0	10,266
929-AFUDC - Equity Regular		13,307		72	0	0	0	0	0	0	0	0	13,379
	937-San Juan AR - Other	3,935		0	0	0	0	0	0	0	0	0	3,935
961-Luna A&G PNMR D&V		0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	19,588		123	0	0	0	0	0	0	0	0	19,711
	825-Clearings	0		-19,711	0	0	0	0	0	0	0	0	-19,711
	Clr Sum	0		-19,711	0	0	0	0	0	0	0	0	-19,711
Proj Net		19,588		-19,588	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 76316132	Year	2016													
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	-598,461	0	0	0	0	0	0	0	0	0	0	0	0	-598,461	
370-Outside Services	598,461	0	0	0	0	0	0	0	0	0	0	0	0	598,461	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	3,897	0	0	0	0	0	0	0	0	0	0	0	0	3,897	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	-11,969	0	0	0	0	0	0	0	0	0	0	0	0	-11,969	
926-A and G Loads	203	0	0	0	0	0	0	0	0	0	0	0	0	203	
928-AFUDC Debt Reg	10,266	0	0	0	0	0	0	0	0	0	0	0	0	10,266	
929-AFUDC - Equity Regular	13,379	0	0	0	0	0	0	0	0	0	0	0	0	13,379	
937-San Juan AR - Other	3,935	0	0	0	0	0	0	0	0	0	0	0	0	3,935	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	19,711	0	0	0	0	0	0	0	0	0	0	0	0	19,711	
825-Clearings	-19,711	0	0	0	0	0	0	0	0	0	0	0	0	-19,711	
Clr Sum	-19,711	0	0	0	0	0	0	0	0	0	0	0	0	-19,711	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76316132	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	-598,461	0	0	0	0	0	0	0	0	0	0	0	0	-598,461
	370-Outside Services	598,461	0	0	0	0	0	0	0	0	0	0	0	0	598,461
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	3,897	0	0	0	0	0	0	0	0	0	0	0	0	3,897
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	-11,969	0	0	0	0	0	0	0	0	0	0	0	0	-11,969
	926-A and G Loads	203	0	0	0	0	0	0	0	0	0	0	0	0	203
	928-AFUDC Debt Reg	10,266	0	0	0	0	0	0	0	0	0	0	0	0	10,266
	929-AFUDC - Equity Regular	13,379	0	0	0	0	0	0	0	0	0	0	0	0	13,379
	937-San Juan AR - Other	3,935	0	0	0	0	0	0	0	0	0	0	0	0	3,935
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	19,711	0	0	0	0	0	0	0	0	0	0	0	0	19,711
	825-Clearings	-19,711	0	0	0	0	0	0	0	0	0	0	0	0	-19,711
	Clr Sum	-19,711	0	0	0	0	0	0	0	0	0	0	0	0	-19,711
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76416012 Unit 4 Automatic Voltage Regulator Replacement***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 12/30/2015

List Interim In-Service Dates

0

Project Need Justification

This project addresses equipment obsolescence issues. Replacement of critical equipment is necessary to sustain unit reliability. The Unit 4 automatic voltage regulator, specifically, has had deteriorating reliability and its poor performance can become a North America Electric Reliability Council (NERC) issue.

Recent misoperations of generation protection during major system disturbances have highlighted the need for better coordination of generator protection with generator capability, generator Automatic Voltage Regulator (AVR) control and transmission system protection. Generator protection misoperations contributed to the 1996 outages in the western U.S. and played a key role in the 2003 U.S. East Coast blackout. Since most recent major power system disturbances are the result of voltage collapse, generator protection must be secure during low voltage system conditions while still providing generator protection. The generator AVR needs to properly control VAr support to rapidly stabilize system voltage during major disturbances.

The generator AVR uses the generator terminal voltage and phase current to calculate generator operating conditions. By comparing the actual point of operation to the desired level, the AVR determines when it is appropriate to adjust the generator field current to maintain the desired generator operating voltage.

In disturbances where short circuits depress the system voltage, electrical power cannot fully be delivered to the transmission system. Fast response of the AVR and excitation system helps to increase the synchronizing torque to allow the generator to remain in synchronism with the system. Field-forcing techniques are used to rapidly increase field current above the steady-state rating for a short time to increase synchronizing torque to enhance generator stability. Negative field-forcing provides fast response for load rejection and de-excitation during internal generator faults. After the short circuit has been cleared, the resulting oscillations of the generator rotor speed with respect to the system frequency will cause the terminal voltage to fluctuate above and below the AVR set point. AVR control limiters are used to prevent the AVR from imposing unacceptable conditions upon the generator. These controls are the maximum and minimum excitation limiters. The overexcitation limiter (OEL) prevents the AVR from trying to supply more excitation current than the excitation system can supply or the generator field can withstand. The OEL must limit excitation current before the generator field overload protection operates. The under excitation limiter (UEL) prevents the AVR from reducing excitation to such a low level that the generator is in danger of losing synchronism.

Project Alternatives

The alternative is to continue to maintain the existing equipment but this will become increasingly costly and difficult as replacement parts become harder to find.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Technical Aspects

In kind replacement of obsolete electrical equipment. The equipment replacements will be of similar design but with upgraded materials and solid state controls.

The Automatic Voltage Regulator shall be comprised of the following:

1. One (1) AVR System, Tag Numbers U4 Generator AVR System. The AVR equipment, enclosures, and accessories shall be designed, assembled, and connected in accordance with requirements of the specifications.
2. VAR/Power Factor Control: The AVR shall be capable of maintaining constant Power factor or constant VARS.
3. Excitation Limiters:
  - a. Underexcitation Limiter: The AVR shall provide an underexcitation limiter to maintain machine excitation above a predetermined synchronous machine capability curve or UEL curve to prevent the machine from reaching underexcited conditions.
  - b. Overexcitation Limiter: The AVR shall provide overexcitation limitation to the synchronous machine and the exciter. The overexcitation limiter shall be

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416012	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	0		143	144	-287	0	0	0	0	0	0	0
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		3	3	-7	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	0		0	0	0	0	0	0	0	0	0	1
	929-AFUDC - Equity Regular	0		0	1	0	0	0	0	0	0	0	1
	937-San Juan AR - Other	0		-52	-52	104	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		95	96	-189	0	0	0	0	0	0	2
	825-Clearings	0		0	0	0	0	0	0	0	-2	0	-2
	Clr Sum	0		0	0	0	0	0	0	0	-2	0	-2
	Proj Net	0		95	96	-189	0	0	0	0	-2	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76416012	Year	2016												
	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	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	929-AFUDC - Equity Regular	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	2
	825-Clearings	-2	0	0	0	0	0	0	0	0	0	0	0	0	-2
	Clr Sum	-2	0	0	0	0	0	0	0	0	0	0	0	0	-2
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416012	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	1	0	0	0	0	0	0	0	0	0	0	0	0	1
929-AFUDC - Equity Regular	1	0	0	0	0	0	0	0	0	0	0	0	0	1
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	2	0	0	0	0	0	0	0	0	0	0	0	0	2
825-Clearings	-2	0	0	0	0	0	0	0	0	0	0	0	0	-2
Clr Sum	-2	0	0	0	0	0	0	0	0	0	0	0	0	-2
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76416028 Unit 4 Burner Front Fire Protection***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 7/1/2015 Estimated Completion Date 10/30/2016

List Interim In-Service Dates

0

Project Need Justification

This project is the last of a series of projects to upgrade the fire protection controls at San Juan Generating Station. The fire protection network is a group of independent fire detection and suppression systems. Various systems include the turbine fire protection system on each unit, transformer fire protection systems and burner front fire protection systems.

San Juan has been in the process of replacing obsolete fire protection controls. Obsolescence in the fire protection system is an unacceptable risk.

The cost of the project includes engineering, materials, labor, certification, project management, general and administrative loads and AFUDC.

This project is included in the test period projected balances for CWIP related to generation, transmission, distribution, and general and intangible plant as of September 30, 2016 that are projected to be in service within five months after the end of the test period.

Pursuant to NMSA 1978, § 62-6-14(E), a utility is allowed to request to include in rate base CWIP for projects that are projected to be in service the lesser of five months after the end of the test period or 24 months after the end of the base period. PNM is requesting the inclusion of CWIP balances for projects such as this one with a projected in-service date by February 2017.

Project Alternatives

Obsolete controls in the fire protection system create are an unacceptable risk for property loss. Absence of a functioning fire protection system at the burner front could lead to significant damage and extended loss of use of the boiler (the burner front is located at the boiler). The cost of the project is a minor investment for the protection it provides.

Technical Aspects

The scope of work is almost completely contracted. Fire protection systems are specialty items which require certified contractor to perform any maintenance, modification or upgrade. The obsolete controls will be replaced with the latest National Fire Prevention Association (NFPA) certified equipment.

This will include heat sensors, fusible links, signal processors, conduit and cables.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416028	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	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
	929-AFUDC - Equity Regular	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
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	0	0	0	0
	825-Clearings	0		0	0	0	0	0	0	0	0	0	0
	Clr Sum	0		0	0	0	0	0	0	0	0	0	0
	Proj Net	0		0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76416028	Year	2016												
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	50,000	50,000	50,000	50,000	50,000	0	250,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	0	0	0	0	0	0	1,185	1,185	1,185	1,185	1,185	0	5,925	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	29	87	145	203	261	0	725	
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	-18,180	-18,180	-18,180	-18,180	-18,180	0	-90,900	
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	33,034	33,092	33,150	33,208	33,266	0	165,750	
825-Clearings	0	0	0	0	0	0	0	0	0	0	0	-165,749	0	-165,749	
Clr Sum	0	0	0	0	0	0	0	0	0	0	0	-165,749	0	-165,749	
Proj Net	0	0	0	0	0	0	0	33,034	33,092	33,150	33,208	-132,483	0	1	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416028	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	250,000	0	0	0	0	0	0	0	0	0	0	0	0	250,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	5,925	0	0	0	0	0	0	0	0	0	0	0	0	5,925
	928-AFUDC Debt Reg	725	0	0	0	0	0	0	0	0	0	0	0	0	725
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-90,900	0	0	0	0	0	0	0	0	0	0	0	0	-90,900
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	165,750	0	0	0	0	0	0	0	0	0	0	0	0	165,750
	825-Clearings	-165,749	0	0	0	0	0	0	0	0	0	0	0	0	-165,749
	Clr Sum	-165,749	0	0	0	0	0	0	0	0	0	0	0	0	-165,749
Proj Net		1	0	0	0	0	0	0	0	0	0	0	0	0	1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76416119 Unit 4 DCS Control Logic Modifications - 2015***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 1/1/2015 Estimated Completion Date 12/15/2015

List Interim In-Service Dates  
0

Project Need Justification

This project is part of a continued and ongoing effort to implement a long-term control system improvement strategy to maximize overall reliability and effectiveness. Logic changes are designed to ensure timely, accurate, and safe execution of broad reaching various control applications relating to Unit 4's Distributed Control System (DCS) and its impact on the day-to-day operations of Unit 4.

Project Alternatives

There are no alternatives to this project. There are known errors and off-design conditions in the DCS logic which must be correct to assure safe and reliable operation of the unit.

Technical Aspects

The control system logic modifications project aims to expedite various DCS control projects. Unit 4 has several key DCS projects that will need various level of support to ensure quick, accurate, and reliable control scheme changes. The changes will help increase the overall efficiency and reliability of the processes identified during the Unit 4 outage. The modifications will affect the alarming schemes, control schemes, documentation, and maintenance intervals positively.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416119	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	0	0	9,950	-9,950	0	0	0	0	0	0	0			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	0	0	236	-236	0	0	0	0	0	0	0			
928-AFUDC Debt Reg	0	0	8	9	0	0	0	0	0	0	18			
929-AFUDC - Equity Regular	0	0	12	12	0	0	0	0	0	0	25			
937-San Juan AR - Other	0	0	-3,618	3,618	0	0	0	0	0	0	0			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	6,589	-6,547	0	0	0	0	0	0	43			
825-Clearings	0	0	0	0	0	0	0	0	0	-43	-43			
Clr Sum	0	0	0	0	0	0	0	0	0	-43	-43			
Proj Net	0	0	6,589	-6,547	0	0	0	0	0	-43	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 76416119	Year	2016												
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	18	0	0	0	0	0	0	0	0	0	0	0	0	18
929-AFUDC - Equity Regular	25	0	0	0	0	0	0	0	0	0	0	0	0	25
937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	43	0	0	0	0	0	0	0	0	0	0	0	0	43
825-Clearings	-43	0	0	0	0	0	0	0	0	0	0	0	0	-43
Clr Sum	-43	0	0	0	0	0	0	0	0	0	0	0	0	-43
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416119	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	18	0	0	0	0	0	0	0	0	0	0	0	0	18
	929-AFUDC - Equity Regular	25	0	0	0	0	0	0	0	0	0	0	0	0	25
	937-San Juan AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	43	0	0	0	0	0	0	0	0	0	0	0	0	43
	825-Clearings	-43	0	0	0	0	0	0	0	0	0	0	0	0	-43
	Clr Sum	-43	0	0	0	0	0	0	0	0	0	0	0	0	-43
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76416128 Unit 4 Platforms - 2016***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 7/1/2016 Estimated Completion Date 9/30/2016

List Interim In-Service Dates

0

Project Need Justification

Routine major maintenance activities that meet the criteria for capitalization are necessary to keep site buildings, access ways, lighting and infrastructure in a safe and reliable condition. This project is part of several projects (76116328, 76116334, 76116335, 76416127, 76416128, 76516036, 76516117, 76516717, 76616231, 76616536, 76617515, 76116114, 76116331, 76117514, 76517524, 76616028, 76616054, 76616115, 76617915, 76716220) that relate to building and structure

maintenance requirements. These projects, include replacing roof systems that have had a normal life expectancy and require replacement due to the fact they are reaching the end of life, attending to aging coating systems (typically paint), designing and constructing access platforms to address safety issues, and purchasing scaffolding to reduce rental expense.

Project Alternatives

Building maintenance activities have no alternatives as long as the facilities are occupied and used for production. There is some discretion in the timing of these investments and typically they are arranged (when possible) in years when there are no planned outages as projects in non-outage years typically have less project management demands and lower capital funding requirements.

Technical Aspects

Construct steel framed structures with grating surfaces to enhance access to equipment. Platforms are typically steel frames with grating surfaces and either stair risers and stringers or caged ladders.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416128	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76416128	Year	2016											
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	48,850	48,850	0	0	0	0	97,700
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads	0	0	0	0	0	0	0	1,158	1,158	0	0	0	0	2,316
928-AFUDC Debt Reg	0	0	0	0	0	0	0	28	85	0	0	0	0	113
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	-17,762	-17,762	0	0	0	0	-35,524
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	32,274	32,331	0	0	0	0	64,605
825-Clearings	0	0	0	0	0	0	0	0	-64,605	0	0	0	0	-64,605
Clr Sum	0	0	0	0	0	0	0	0	-64,605	0	0	0	0	-64,605
Proj Net	0	0	0	0	0	0	0	32,274	-32,274	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project 76416128	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	97,700	0	0	0	0	0	0	0	0	0	0	0	0	97,700
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads	2,316	0	0	0	0	0	0	0	0	0	0	0	0	2,316
928-AFUDC Debt Reg	113	0	0	0	0	0	0	0	0	0	0	0	0	113
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
937-San Juan AR - Other	-35,524	0	0	0	0	0	0	0	0	0	0	0	0	-35,524
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	64,605	0	0	0	0	0	0	0	0	0	0	0	0	64,605
825-Clearings	-64,605	0	0	0	0	0	0	0	0	0	0	0	0	-64,605
Clr Sum	-64,605	0	0	0	0	0	0	0	0	0	0	0	0	-64,605
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76416715 Unit 4 Economizer CO Controls***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 7/1/2016 Estimated Completion Date 10/30/2016

List Interim In-Service Dates

0

Project Need Justification

The Unit 4 economizer carbon monoxide controls currently uses the Allen Bradley SLC 500 series control that will be discontinued and no longer supported by 2017. The PLC system currently has a sample system that utilizes I/O sensors that are not providing accurate carbon monoxide measurements, and the system is currently not connected to the control network. The project objectives are to replace the SLC 500 with a CompactLogix series control system (most current offering from the manufacturer), implement MPC series mass flow controllers to get a better measurement of the carbon monoxide being generated during combustion (replacing current sample system), and to connect the Programmable Logic Controller (PLC) to the control network via Ethernet/fiber cable. This would be a major upgrade to the current carbon monoxide system currently used on Unit 4 which would allow the accuracy of the measurements being taken for the carbon monoxide on Unit 4 to increase.

The cost of the project includes engineering, materials (sample probes, sensor and signal processors), contract labor for installation, project management, general and administrative loads and AFUDC.

Project Alternatives

There is no alternative to addressing the system as the software support is going away. The decision to stay with the current manufacturer will prevent additional costs associated with training and stocking of spare parts needed to support a different manufacturer. Allen Bradley is an industry leader in process control and the San Juan plant standard.

Technical Aspects

Install sensing devices, transmitters, analytical software and controls to enhance combustion based on carbon monoxide readings at the boiler exit.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76416715	Year	2015										
	Cost_Type	Bal 3/31/15	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	
	120-Overtime-General	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	
	370-Outside Services	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	
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	
	807-Non Refundable Contribution	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	
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	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	
	914-Pension and Benefits Load	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	
	918-San Juan AR-Labor	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	
	922-Minor Material Load	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	
	926-A and G Loads	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	
	929-AFUDC - Equity Regular	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	
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76416715	Year	2016											
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	30,000	30,000	30,000	0	0	0	90,000
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads	0	0	0	0	0	0	0	711	711	711	0	0	0	2,133
928-AFUDC Debt Reg	0	0	0	0	0	0	0	17	52	87	0	0	0	156
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	-10,908	-10,908	-10,908	0	0	0	-32,724
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	19,820	19,855	19,890	0	0	0	59,565
825-Clearings	0	0	0	0	0	0	0	0	0	-59,565	0	0	0	-59,565
Clr Sum	0	0	0	0	0	0	0	0	0	-59,565	0	0	0	-59,565
Proj Net	0	0	0	0	0	0	0	19,820	19,855	-39,675	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76416715	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	90,000	0	0	0	0	0	0	0	0	0	0	0	0	90,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	2,133	0	0	0	0	0	0	0	0	0	0	0	0	2,133
	928-AFUDC Debt Reg	156	0	0	0	0	0	0	0	0	0	0	0	0	156
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-32,724	0	0	0	0	0	0	0	0	0	0	0	0	-32,724
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	59,565	0	0	0	0	0	0	0	0	0	0	0	0	59,565
	825-Clearings	-59,565	0	0	0	0	0	0	0	0	0	0	0	0	-59,565
	Clr Sum	-59,565	0	0	0	0	0	0	0	0	0	0	0	0	-59,565
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76417215 Unit 4 Electrostatic Precipitator Bypass Duct***

Company: 003  
Location: 764 San Juan

Project Information

Construction Start Date 2/1/2019 Estimated Completion Date 12/31/2015

List Interim In-Service Dates

0

Project Need Justification

The Unit 4 electrostatic precipitator (ESP) was abandoned in place following installation of baghouses in 2008. Although the ESP is de-energized, it continues to act as a mechanical dust collection device. Ash which falls into the hoppers below the ESP must be removed to prevent structural overloading of the system. The ash removal system is a leading driver of maintenance expense and lost availability.

This project includes the construction of a new boiler exit gas ductwork to "short circuit" or "bypass" the path through the ESP. A business case has been performed using conservative assumptions and this project has a high rate of return and a payback of 4 years.

The cost of this project is for design engineering only. Construction is yet to begin for this project. The engineering work will be used when construction is authorized. The cost includes engineering, project management, general and administrative loads and AFUDC.

Project Alternatives

The only alternative is the "do nothing" alternative which would forfeit the maintenance cost reductions and improvements in unit reliability.

Technical Aspects

The project scope includes construction of new boiler exit gas ductwork to "short circuit" or "bypass" the path through the ESP. Structural steel will be required to support the new ductwork.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76417215	Year	2015											
	Cost_Type	Bal 3/31/15	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		
	120-Overtime-General	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		
	370-Outside Services	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		
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0		
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0		
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0		
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0		
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0		
	807-Non Refundable Contribution	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		
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0		
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0		
	909-Luna AR - Other	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		
	914-Pension and Benefits Load	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		
	918-San Juan AR-Labor	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		
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0		
	925-E and S Loads	2,790	0	0	0	0	0	0	0	0	0	0	2,790	
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	
	928-AFUDC Debt Reg	1,394	221	223	224	226	227	228	230	231	233	3,438		
	929-AFUDC - Equity Regular	1,993	316	318	320	322	324	326	328	330	332	4,911		
	937-San Juan AR - Other	79,770	0	0	0	0	0	0	0	0	0	79,770		
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0		
	Cost Sum	85,947	538	541	544	548	551	555	558	562	565	90,909		
	825-Clearings	0	0	0	0	0	0	0	0	0	-90,909	-90,909		
	Clr Sum	0	0	0	0	0	0	0	0	0	-90,909	-90,909		
Proj Net		85,947	538	541	544	548	551	555	558	562	-90,344	0		

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76417215	Year	2016												
	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	2,790	0	0	0	0	0	0	0	0	0	0	0	0	2,790
	926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	928-AFUDC Debt Reg	3,438	0	0	0	0	0	0	0	0	0	0	0	0	3,438
	929-AFUDC - Equity Regular	4,911	0	0	0	0	0	0	0	0	0	0	0	0	4,911
	937-San Juan AR - Other	79,770	0	0	0	0	0	0	0	0	0	0	0	0	79,770
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	90,909	0	0	0	0	0	0	0	0	0	0	0	0	90,909
	825-Clearings	-90,909	0	0	0	0	0	0	0	0	0	0	0	0	-90,909
	Clr Sum	-90,909	0	0	0	0	0	0	0	0	0	0	0	0	-90,909
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76417215	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	2,790	0	0	0	0	0	0	0	0	0	0	0	0	2,790
926-A and G Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
928-AFUDC Debt Reg	3,438	0	0	0	0	0	0	0	0	0	0	0	0	3,438
929-AFUDC - Equity Regular	4,911	0	0	0	0	0	0	0	0	0	0	0	0	4,911
937-San Juan AR - Other	79,770	0	0	0	0	0	0	0	0	0	0	0	0	79,770
961-Luna A&G PNM D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	90,909	0	0	0	0	0	0	0	0	0	0	0	0	90,909
825-Clearings	-90,909	0	0	0	0	0	0	0	0	0	0	0	0	-90,909
Clr Sum	-90,909	0	0	0	0	0	0	0	0	0	0	0	0	-90,909
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76417415    Unit 4 Absorber Polishing Sieve Tray***

Company:        003  
Location:        764 San Juan

Project Information

Construction Start Date            8/1/2015                            Estimated Completion Date        12/30/2015

List Interim In-Service Dates  
0

Project Need Justification

The flue gas desulfurization (FGD) systems are pollution control systems designed to remove sulfur dioxide (SO2) from the gases generated by burning coal. The absorber is a main component of the FGD system. It is the vessel in which a calcium carbonate liquid interacts with the flue gas and "scrubs out" the sulfur dioxide (SO2). The sieve tray is a perforated plate that creates a liquid/gas interface and enhances the removal efficiency of the absorber. Absorber removal efficiency can be increased by installing a second tier or "polishing" sieve tray. This tray is not designed to remove as much SO2 as the primary tray but simply to enhance or "polish" the removal efficiency of the absorber. This project will install this second tier sieve tray.

This is a necessary activity to maintain compliance with the Title V Air Permit which, among other things, regulates the emission rate for SO2. Poor performance of the FGD systems will result in either reduced unit output capacity (production of fewer megawatt hours) or out of compliance operation which can result in fines or penalties.

The cost of the project includes engineering, materials, contract labor for installation, project management, general and administrative loads and AFUDC.

Project Alternatives

Sulfur dioxide emissions are limited by the Title V air permit. The compliance options are either to reduce unit output, change fuels or "scrub out" the SO2.

San Juan is a mine mouth facility. Changing to a different coal supply is not a viable alternative.

SO2 removal can be enhanced by injecting dibasic acid. This option is much more expensive than installing a polishing sieve tray.

Technical Aspects

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Install a second perforated plate between the existing sieve tray elevation and the first spray header elevation.

The perforated plate and support beams will be a C276 Hastalloy material. As this is a passive system, there is no other equipment required.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76417415	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	0		0	0	0	0	9,750	0	28,750	19,000	0	57,500
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		0	0	0	0	231	0	681	450	0	1,363
	928-AFUDC Debt Reg	0		0	0	0	0	8	17	41	82	0	148
	929-AFUDC - Equity Regular	0		0	0	0	0	12	24	59	117	0	212
	937-San Juan AR - Other	0		0	0	0	0	-3,545	0	-10,453	-6,908	0	-20,907
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	6,456	40	19,078	12,741	0	38,316
	825-Clearings	0		0	0	0	0	0	0	0	-38,316	0	-38,316
	Clr Sum	0		0	0	0	0	0	0	0	-38,316	0	-38,316
	Proj Net	0		0	0	0	0	6,456	40	19,078	-25,574	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76417415	Year	2016												
	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	57,500	0	0	0	0	0	0	0	0	0	0	0	0	57,500
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	1,363	0	0	0	0	0	0	0	0	0	0	0	0	1,363
	928-AFUDC Debt Reg	148	0	0	0	0	0	0	0	0	0	0	0	0	148
	929-AFUDC - Equity Regular	212	0	0	0	0	0	0	0	0	0	0	0	0	212
	937-San Juan AR - Other	-20,907	0	0	0	0	0	0	0	0	0	0	0	0	-20,907
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	38,316	0	0	0	0	0	0	0	0	0	0	0	0	38,316
	825-Clearings	-38,316	0	0	0	0	0	0	0	0	0	0	0	0	-38,316
	Clr Sum	-38,316	0	0	0	0	0	0	0	0	0	0	0	0	-38,316
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76417415	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	57,500	0	0	0	0	0	0	0	0	0	0	0	0	57,500
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	1,363	0	0	0	0	0	0	0	0	0	0	0	0	1,363
	928-AFUDC Debt Reg	148	0	0	0	0	0	0	0	0	0	0	0	0	148
	929-AFUDC - Equity Regular	212	0	0	0	0	0	0	0	0	0	0	0	0	212
	937-San Juan AR - Other	-20,907	0	0	0	0	0	0	0	0	0	0	0	0	-20,907
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	38,316	0	0	0	0	0	0	0	0	0	0	0	0	38,316
	825-Clearings	-38,316	0	0	0	0	0	0	0	0	0	0	0	0	-38,316
	Clr Sum	-38,316	0	0	0	0	0	0	0	0	0	0	0	0	-38,316
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

***Project No: 76516034 Units 1&2 Pulverizer Mill CO2 Inerting***

Company: 003  
Location: 765 San Juan

Project Information

Construction Start Date 9/14/2015 Estimated Completion Date 9/30/2015

List Interim In-Service Dates

Unit 1 related projects will be in service on April 15, 2015. Unit 4 related projects will be in service on November 30, 2015. Unit 2 related projects are in service

Project Need Justification

Pulverizers are the equipment which crushes the coal that fuels utility boilers.

In the process of starting and stopping the pulverizers, there is a point where an explosive environment exists within the pulverizer. The explosion hazard is mitigated by the injection of an inerting gas. The San Juan Unit 1 pulverizers currently use process steam to inert the explosive condition.

Steam inerting is effective in addressing the explosive condition but it leads to equipment problems. Carbon dioxide has emerged as a better technology for pulverizer inerting. This project will connect unit 1 to the CO2 system.

The industry standard for pulverizer inerting is now CO2. The pulverizers on all three other units at San Juan have already been converted to CO2 inerting.

Project Alternatives

Some form of pulverizer inerting is required. The alternatives are to maintain the existing steam system on Unit 1 or convert to a CO2 system.

Maintaining the steam system is not preferred because the industry has determined steam to be less effective and more costly than CO2 inerting.

Technical Aspects

Extend 4"CO2 header piping to Unit 1 area and install a branch line to each of 4 pulverizers. The inerting system replaces the current steam system with a carbon dioxide (CO2) system. The inerting system is used to create a non-combustible atmosphere during pulverizer starts and stops. The inerting system is an industry standard practice to prevent pulverizer "puffs" or explosions that are most likely to occur during starts and stops.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76516034	Year	2015										
	Cost_Type	Bal 3/31/15	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	
	120-Overtime-General	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	
	370-Outside Services	0	9,600	28,450	28,450	50,250	19,500	0	0	0	0	136,250	
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	
	807-Non Refundable Contribution	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	
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	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	
	914-Pension and Benefits Load	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	
	918-San Juan AR-Labor	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	
	922-Minor Material Load	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	
	926-A and G Loads	0	228	674	674	1,191	462	0	0	0	0	3,229	
	928-AFUDC Debt Reg	0	6	31	69	122	168	0	0	0	0	397	
	929-AFUDC - Equity Regular	0	9	45	99	174	240	0	0	0	0	567	
	937-San Juan AR - Other	0	-4,914	-14,562	-14,562	-25,720	-9,981	0	0	0	0	-69,740	
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	
	Cost Sum	0	4,929	14,639	14,730	26,015	10,390	0	0	0	0	70,703	
	825-Clearings	0	0	0	0	0	-70,703	0	0	0	0	-70,703	
	Clr Sum	0	0	0	0	0	-70,703	0	0	0	0	-70,703	
	Proj Net	0	4,929	14,639	14,730	26,015	-60,313	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76516034	Year	2016												
	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	136,250	0	0	0	0	0	0	0	0	0	0	0	0	136,250
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	3,229	0	0	0	0	0	0	0	0	0	0	0	0	3,229
	928-AFUDC Debt Reg	397	0	0	0	0	0	0	0	0	0	0	0	0	397
929-AFUDC - Equity Regular		567	0	0	0	0	0	0	0	0	0	0	0	0	567
	937-San Juan AR - Other	-69,740	0	0	0	0	0	0	0	0	0	0	0	0	-69,740
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	70,703	0	0	0	0	0	0	0	0	0	0	0	0	70,703
	825-Clearings	-70,703	0	0	0	0	0	0	0	0	0	0	0	0	-70,703
	Clr Sum	-70,703	0	0	0	0	0	0	0	0	0	0	0	0	-70,703
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76516034	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	136,250	0	0	0	0	0	0	0	0	0	0	0	0	136,250
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	3,229	0	0	0	0	0	0	0	0	0	0	0	0	3,229
	928-AFUDC Debt Reg	397	0	0	0	0	0	0	0	0	0	0	0	0	397
	929-AFUDC - Equity Regular	567	0	0	0	0	0	0	0	0	0	0	0	0	567
	937-San Juan AR - Other	-69,740	0	0	0	0	0	0	0	0	0	0	0	0	-69,740
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	70,703	0	0	0	0	0	0	0	0	0	0	0	0	70,703
	825-Clearings	-70,703	0	0	0	0	0	0	0	0	0	0	0	0	-70,703
	Clr Sum	-70,703	0	0	0	0	0	0	0	0	0	0	0	0	-70,703
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Project No: 76616036    Plant Common Protection Relay Replacement - 2016**

Company:        003  
Location:        766 San Juan

Project Information

<u>Construction Start Date</u>	7/1/2016	<u>Estimated Completion Date</u>	11/30/2016
<u>List Interim In-Service Dates</u>	0		

Project Need Justification  
Protective relay technology has advanced from electromechanical devices to solid state devices. Electromechanical relays are becoming obsolete.

This project is to replace five (5) electromechanical protection relays located in the wastewater treatment area with modern solid state relays. Replacement of the relays will reduce the risk of relay mis-operations and failures resulting in a unit outage. The new solid state relays include much tighter relay tolerances to protection settings. The result is an enhancement to the safety of equipment and personnel. Additionally, the new solid state relays provide historical/pre-trip data which proves extremely useful in determining the cause of a relay operation.

The project funds provide for engineering, materials (solid state relays, cable, conduit), installation labor, commissioning, updating the SKM model, updating drawings, project management, and general and administrative loads.

This project is included in the test period projected balances for CWIP related to generation, transmission, distribution, and general and intangible plant as of September 30, 2016 that are projected to be in service within five months after the end of the test period.

Pursuant to NMSA 1978, § 62-6-14(E), a utility is allowed to request to include in rate base CWIP for projects that are projected to be in service the lesser of five months after the end of the test period or 24 months after the end of the base period. PNM is requesting the inclusion of CWIP balances for projects such as this one with a projected in-service date by February 2017.

Project Alternatives  
The existing electromechanical relays could continue to be maintained. However, the task will become increasingly difficult as parts become less available. The industry standard has advanced from electromechanical devices to solid state devices. The solid state devices produce higher system reliability and offer more information on the cause of a relay trip than the electromechanical devices. Therefore, the chosen project is the best approach for PNM to mitigate the risk.

Technical Aspects  
The scope of this project is to replace obsolete electromechanical relays with solid state devices. This project is part of a multiyear program to replace electromechanical relays with solid state relays. The relays are located in all areas of the plant - each unit, common areas and the switchyard.

The specific scope of work for this project is to upgrade the electromechanical protective relays on five North Side Wastewater (NSWW) medium voltage switchgear breakers. The protective relays for Recirculation Pump 163, Vapor Compressor 111 and Vapor Compressor 366 will be replaced with SEL 710 Motor Protection Relays. The protective relays for the NSWW Load Centers 1&2 and NSWW Load Centers 3&4 feeders will be replaced with SEL 551 Overcurrent/Reclosing Relays.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76616036	Year	2015										
	Cost_Type	Bal 3/31/15	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	
	120-Overtime-General	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	
	370-Outside Services	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	
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution		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	
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	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	
914-Pension and Benefits Load		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	
	918-San Juan AR-Labor	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	
	922-Minor Material Load	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	
	926-A and G Loads	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	
929-AFUDC - Equity Regular		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	
961-Luna A&G PNMR D&V		0	0	0	0	0	0	0	0	0	0	0	
	Cost Sum	0	0	0	0	0	0	0	0	0	0	0	
	825-Clearings	0	0	0	0	0	0	0	0	0	0	0	
	Clr Sum	0	0	0	0	0	0	0	0	0	0	0	
Proj Net		0	0	0	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616036	Year	2016												
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	20,000	25,000	26,000	26,000	0	0	97,000	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
926-A and G Loads	0	0	0	0	0	0	0	474	593	616	616	0	0	2,299	
928-AFUDC Debt Reg	0	0	0	0	0	0	0	11	34	61	88	0	0	194	
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	-8,462	-10,577	-11,000	-11,000	0	0	-41,039	
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	12,023	15,050	15,677	15,704	0	0	58,454	
825-Clearings	0	0	0	0	0	0	0	0	0	0	-58,454	0	0	-58,454	
Clr Sum	0	0	0	0	0	0	0	0	0	0	-58,454	0	0	-58,454	
Proj Net	0	0	0	0	0	0	0	12,023	15,050	15,677	-42,750	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616036	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	97,000	0	0	0	0	0	0	0	0	0	0	0	0	97,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	2,299	0	0	0	0	0	0	0	0	0	0	0	0	2,299
	928-AFUDC Debt Reg	194	0	0	0	0	0	0	0	0	0	0	0	0	194
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-41,039	0	0	0	0	0	0	0	0	0	0	0	0	-41,039
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	58,454	0	0	0	0	0	0	0	0	0	0	0	0	58,454
	825-Clearings	-58,454	0	0	0	0	0	0	0	0	0	0	0	0	-58,454
	Clr Sum	-58,454	0	0	0	0	0	0	0	0	0	0	0	0	-58,454
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76616046 Plant Common Fiber Optic Cable Between PSPS NERC***

Company: 003  
Location: 766 San Juan

Project Information

Construction Start Date 4/1/2014 Estimated Completion Date 12/1/2015

List Interim In-Service Dates

0

Project Need Justification

As an owner and operator of a Bulk Electric System (BES), PNM is required to comply with applicable standards from NERC.

NERC standards require a "six wall" boundary around components in a critical infrastructure network. The boundaries are top, bottom, two sides and two ends. This criteria for fiber optic cables is met by installing the fiber optic cable in conduit and terminating the end of the cable in secure enclosure boxes.

Physically Secure Perimeters (PSPs) are areas that contain critical assets and have controlled access. This is a component in achieving the "six wall" boundary criterion. The physically secure perimeter satisfies the "two end" condition of the "six wall" criterion. Communication cables between physically secure perimeters are typically fiber optic cables. The normal installation is to run the fiber optic cables in either open top cable trays or in a plastic conduit normally referred to as "innerduct." Neither of these installation methods satisfy the NERC "six wall" boundary requirement.

To comply with NERC standards, this project is being executed to install fiber optic communication cables in compliant conduit between physically secure perimeters. The cost of the project includes engineering, materials, contract labor for installation, project management, general and administrative loads and AFUDC.

Project Alternatives

Some alternatives in the method of compliance are available but there are no alternative to complying with the standard. This specific project was selected because it was deemed the best option available to PNM to comply with NERC standards.

The installation of individual conduits and fiber optic cables is a simple, low cost solution to meeting NERC requirements.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Technical Aspects

Install fiber optic conductors and conduit as needed to comply with NERC "6 wall" protection for links between Physically Secure Perimeters. This includes communication cables between the Unit 1/2 Control Room, the Unit 3/4 Control Room, the Coal Handling control room and the Limestone control room.

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Cost Year 01

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616046	Year	2016												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
110-Straight Time-General	2,430	0	0	0	0	0	0	0	0	0	0	0	0	2,430	
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	65,000	0	0	0	0	0	0	0	0	0	0	0	0	65,000	
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	164	0	0	0	0	0	0	0	0	0	0	0	0	164	
914-Pension and Benefits Load	693	0	0	0	0	0	0	0	0	0	0	0	0	693	
915-Injuries and Damages Load	59	0	0	0	0	0	0	0	0	0	0	0	0	59	
918-San Juan AR-Labor	-1,761	0	0	0	0	0	0	0	0	0	0	0	0	-1,761	
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	45	0	0	0	0	0	0	0	0	0	0	0	0	45	
926-A and G Loads	1,598	0	0	0	0	0	0	0	0	0	0	0	0	1,598	
928-AFUDC Debt Reg	353	0	0	0	0	0	0	0	0	0	0	0	0	353	
929-AFUDC - Equity Regular	504	0	0	0	0	0	0	0	0	0	0	0	0	504	
937-San Juan AR - Other	-27,554	0	0	0	0	0	0	0	0	0	0	0	0	-27,554	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	41,531	0	0	0	0	0	0	0	0	0	0	0	0	41,531	
825-Clearings	-41,531	0	0	0	0	0	0	0	0	0	0	0	0	-41,531	
Clr Sum	-41,531	0	0	0	0	0	0	0	0	0	0	0	0	-41,531	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616046	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	2,430	0	0	0	0	0	0	0	0	0	0	0	0	2,430
	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	65,000	0	0	0	0	0	0	0	0	0	0	0	0	65,000
	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	164	0	0	0	0	0	0	0	0	0	0	0	0	164
	914-Pension and Benefits Load	693	0	0	0	0	0	0	0	0	0	0	0	0	693
	915-Injuries and Damages Load	59	0	0	0	0	0	0	0	0	0	0	0	0	59
	918-San Juan AR-Labor	-1,761	0	0	0	0	0	0	0	0	0	0	0	0	-1,761
	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	45	0	0	0	0	0	0	0	0	0	0	0	0	45
	926-A and G Loads	1,598	0	0	0	0	0	0	0	0	0	0	0	0	1,598
	928-AFUDC Debt Reg	353	0	0	0	0	0	0	0	0	0	0	0	0	353
	929-AFUDC - Equity Regular	504	0	0	0	0	0	0	0	0	0	0	0	0	504
	937-San Juan AR - Other	-27,554	0	0	0	0	0	0	0	0	0	0	0	0	-27,554
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	41,531	0	0	0	0	0	0	0	0	0	0	0	0	41,531
	825-Clearings	-41,531	0	0	0	0	0	0	0	0	0	0	0	0	-41,531
	Clr Sum	-41,531	0	0	0	0	0	0	0	0	0	0	0	0	-41,531
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Project No: 76616054 Plant Common Roof Refurbishment - 2015**

## Project Information

List Interim In-Service Dates

### Project Need Justification

maintenance requirements. These projects, include replacing roof systems that have had a normal life expectancy and require replacement due to the fact they are reaching the end of life, attending to aging coating systems (typically paint), designing and constructing access platforms to address safety issues, and purchasing scaffolding to reduce rental expense.

## Project Alternatives

Building maintenance activities have no alternatives as long as the facilities are occupied and used for production. There is some discretion in the timing of these investments and typically they are arranged (when possible) in years when there are no planned outages as projects in non-outage years typically have less project management demands and lower capital funding requirements.

## Technical Aspects

Replace failed roofing with fully adhered roofing system. Roof replacements include removal of the existing ballast and/or fully adhered waterproof membrane, insulation and decking (if necessary). Some of the original roofing systems used asbestos containing materials so abatement is necessary. The new roof systems are using a light weight concrete in lieu of aggregate ballast.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76616054	Year	2015										
Cost_Type	Bal 3/31/15			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
120-Overtime-General	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
370-Outside Services	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
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	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
914-Pension and Benefits Load	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
918-San Juan AR-Labor	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
922-Minor Material Load	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
926-A and G Loads	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
929-AFUDC - Equity Regular	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
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0
Cost Sum	0			0	0	0	0	0	0	0	0	0	0
825-Clearings	0			0	0	0	0	0	0	0	0	0	0
Clr Sum	0			0	0	0	0	0	0	0	0	0	0
Proj Net	0			0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616054	Year	2016												
	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	500	2,000	2,000	2,000	0	1,185	474	250	0	0	0	0	8,409
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	12	47	47	47	0	28	11	6	0	0	0	0	198
	928-AFUDC Debt Reg	0	0	2	4	6	7	7	8	9	0	0	0	0	43
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	-212	-846	-846	-846	0	-501	-201	-106	0	0	0	0	-3,558
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	300	1,203	1,205	1,207	7	719	292	159	0	0	0	0	5,092
	825-Clearings	0	0	0	0	0	0	0	0	-5,093	0	0	0	0	-5,093
	Clr Sum	0	0	0	0	0	0	0	0	-5,093	0	0	0	0	-5,093
	Proj Net	0	300	1,203	1,205	1,207	7	719	292	-4,934	0	0	0	0	-1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616054	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	8,409	0	0	0	0	0	0	0	0	0	0	0	0	8,409
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	198	0	0	0	0	0	0	0	0	0	0	0	0	198
	928-AFUDC Debt Reg	43	0	0	0	0	0	0	0	0	0	0	0	0	43
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-3,558	0	0	0	0	0	0	0	0	0	0	0	0	-3,558
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	5,092	0	0	0	0	0	0	0	0	0	0	0	0	5,092
	825-Clearings	-5,093	0	0	0	0	0	0	0	0	0	0	0	0	-5,093
	Clr Sum	-5,093	0	0	0	0	0	0	0	0	0	0	0	0	-5,093
	Proj Net	-1	0	0	0	0	0	0	0	0	0	0	0	0	-1

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***Project No: 76616115 Common Cathodic Protection System***

Company: 003  
Location: 766 San Juan

Project Information

Construction Start Date 5/1/2015 Estimated Completion Date 9/30/2015

List Interim In-Service Dates

0

Project Need Justification

Cathodic protection is a system that prevents corrosion of buried steel pipe. When steel pipe is installed in underground applications, it becomes susceptible to galvanic corrosion. Cathodic protection is a technique used to control the corrosion of a metal surface by making it the cathode of an electrochemical cell. A simple method of protection connects the metal to be protected to a more easily corroded "sacrificial metal" to act as the anode. The sacrificial metal then corrodes instead of the protected metal. Many anodes need to be replaced.

San Juan Generating Station has several underground steel piping systems including the raw water system, fire protection ring header system, fuel oil piping systems and circulating water systems on each unit. Maintenance of the cathodic protection systems is essential to prevent leaks and/or failures in these piping systems.

Certain major maintenance activities in the cathodic protection system meet the criteria for capitalization.

The cost of this project includes sacrificial anodes, contract labor for installation, project management, general and administrative loads and AFUDC.

Project Alternatives

This is a maintenance activity that meets the criteria for capitalization. There are no viable options. The cathodic protection system is the designed means for maintaining long-term reliability in critical underground piping systems. Failure to maintain the cathodic protection system will cause corrosion in steel piping system and ultimately piping system failures and loss of unit reliability.

The failure of underground piping systems may also result in environmental issues if fluids from failed piping systems are discharged into the environment.

Technical Aspects

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Replace depleted sacrificial anodes. The beds to be replaced are identified in the cathodic protection system test report dated April 11, 2014.

The installation specifications are fifteen (15) each 2" diameter by 84" long Type TA-2 Duriron anodes spaced at 10" centers with #8 AWG/HMWPE cable. The deep anode bed will be 8" diameter by 350' feet deep and will have 20' of 8" diameter PVC casing at the top of the hole. The coke backfill will be top loaded and filled from the bottom of the hole to 10' above the last anode.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616115	Year	2016												
	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	86,750	0	0	0	0	0	0	0	0	0	0	0	0	86,750
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	2,056	0	0	0	0	0	0	0	0	0	0	0	0	2,056
	928-AFUDC Debt Reg	254	0	0	0	0	0	0	0	0	0	0	0	0	254
	929-AFUDC - Equity Regular	363	0	0	0	0	0	0	0	0	0	0	0	0	363
	937-San Juan AR - Other	-36,703	0	0	0	0	0	0	0	0	0	0	0	0	-36,703
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	52,721	0	0	0	0	0	0	0	0	0	0	0	0	52,721
	825-Clearings	-52,721	0	0	0	0	0	0	0	0	0	0	0	0	-52,721
	Clr Sum	-52,721	0	0	0	0	0	0	0	0	0	0	0	0	-52,721
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616115	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	86,750	0	0	0	0	0	0	0	0	0	0	0	0	86,750
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	2,056	0	0	0	0	0	0	0	0	0	0	0	0	2,056
	928-AFUDC Debt Reg	254	0	0	0	0	0	0	0	0	0	0	0	0	254
	929-AFUDC - Equity Regular	363	0	0	0	0	0	0	0	0	0	0	0	0	363
	937-San Juan AR - Other	-36,703	0	0	0	0	0	0	0	0	0	0	0	0	-36,703
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	52,721	0	0	0	0	0	0	0	0	0	0	0	0	52,721
	825-Clearings	-52,721	0	0	0	0	0	0	0	0	0	0	0	0	-52,721
	Clr Sum	-52,721	0	0	0	0	0	0	0	0	0	0	0	0	-52,721
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76616436 Plant Common 4A Fluid Drive Replacement***

Company: 003  
Location: 766 San Juan

Project Information

Construction Start Date 1/1/2016 Estimated Completion Date 2/28/2016

List Interim In-Service Dates

0

Project Need Justification

The existing solid coupling between the 4A conveyor motor and the 4A conveyor drive pulley is at the end of its expected life and replacement is needed to maintain station availability. This device is part of the coal handling system which provides fuel to all four units at San Juan Generating Station. Loss of this equipment will impact the reliability of all four generating units.

The scope of this project is to replace the solid coupling with a fluid drive coupling.

This system improvement has been installed onto the 4B belt and has proven benefits.

Benefits:

- 1) Ability to start the belt with a load of coal on the belt. This decreases the risks and safety and environmental hazards and cleanliness associated with manually cleaning the coal off of the belt.
- 2) Reduced belt down time giving an increases reliability due to time savings associated with Benefit 1.
- 3) Improved reliability of the drive components, motor, gearbox, take-up roller.

The cost of this project includes material, contract labor for installation, project management, general and administrative loads and AFUDC.

Project Alternatives

The following alternatives were considered:

- 1) do nothing - this avoids the cost of even an in-kind replacement but the risk of failure give the age of the existing coupling is high and the



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017  
consequences of losing this equipment is an unacceptable risk to unit reliability.

2) Install fluid drive coupling - many benefits which justify cost.(see benefits in Project Need Justification)

3) Variable Frequency Drive (VFD) for drive motors - expensive and difficult to cost justify. A variable frequency drive in the application has a budgetary cost of approximately \$1 million.

#### Technical Aspects

Replace the existing solid coupling with a fluid drive coupling. This will require some adjustment to the motor and gearbox spacing to make room for the installation of the fluid drive.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76616436	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	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
	929-AFUDC - Equity Regular	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
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	0	0	0	0
	825-Clearings	0		0	0	0	0	0	0	0	0	0	0
	Clr Sum	0		0	0	0	0	0	0	0	0	0	0
	Proj Net	0		0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616436	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	0	116,550	0	0	0	0	0	0	0	0	0	0	0	116,550
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	2,762	0	0	0	0	0	0	0	0	0	0	0	2,762
	928-AFUDC Debt Reg	0	61	123	0	0	0	0	0	0	0	0	0	0	184
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	0	-49,311	0	0	0	0	0	0	0	0	0	0	0	-49,311
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	70,062	123	0	0	0	0	0	0	0	0	0	0	70,185
	825-Clearings	0	0	-70,186	0	0	0	0	0	0	0	0	0	0	-70,186
	Clr Sum	0	0	-70,186	0	0	0	0	0	0	0	0	0	0	-70,186
	Proj Net	0	70,062	-70,063	0	0	0	0	0	0	0	0	0	0	-1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616436	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	116,550	0	0	0	0	0	0	0	0	0	0	0	0	116,550
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	2,762	0	0	0	0	0	0	0	0	0	0	0	0	2,762
	928-AFUDC Debt Reg	184	0	0	0	0	0	0	0	0	0	0	0	0	184
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-49,311	0	0	0	0	0	0	0	0	0	0	0	0	-49,311
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	70,185	0	0	0	0	0	0	0	0	0	0	0	0	70,185
	825-Clearings	-70,186	0	0	0	0	0	0	0	0	0	0	0	0	-70,186
	Clr Sum	-70,186	0	0	0	0	0	0	0	0	0	0	0	0	-70,186
	Proj Net	-1	0	0	0	0	0	0	0	0	0	0	0	0	-1

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***Project No: 76616536 Plant Common Administration Building HVAC Controls***

Company: 003  
Location: 766 San Juan

**Project Information**

Construction Start Date 4/1/2016 Estimated Completion Date 10/30/2016

List Interim In-Service Dates

0

Project Need Justification

Certain components of the San Juan Administration Building HVAC system were replaced in 2014. The 2014 work addressed the air conditioning technology (going from a direct exchange system to a chilled water system) but did not include changes to the temperature controls for occupied spaces. The combination of office reconfigurations and technology changes have rendered the current space temperature controls ineffective. Thermostats are located appropriately to provide comfort in occupied spaces. The equipment is becoming obsolete and the impact is compounded by recent changes to other parts of the system.

This project is intended to reconfigure temperature zones and update the controls (thermostats and mechanical switches) to microprocessor based components.

The cost of the project includes engineering, materials, contract labor for installation, project management, general and administrative loads and AFUDC.

Project Alternatives

Building maintenance activities have no alternatives as long as the facilities are occupied and used for production. There is some discretion in the timing of these investments and typically they are arranged (when possible) in years when there are no planned outages as projects in non-outage years typically have less project management demands and lower capital funding requirements. There are no planned outages at San Juan in 2016.

Supplier alternatives will be evaluated through the competitive bidding process used to select the successful bidder.

Technical Aspects

Replace all HVAC thermostats in the San Juan Administration Building with microprocessor based thermostats. Reconfigure fan and damper controls to balance air flow and provide for proper temperature control in occupied spaces. This will include testing, balancing and some cable and conduit installation.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76616536	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	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
	929-AFUDC - Equity Regular	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
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	0	0	0	0
	825-Clearings	0		0	0	0	0	0	0	0	0	0	0
	Clr Sum	0		0	0	0	0	0	0	0	0	0	0
	Proj Net	0		0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616536	Year	2016												
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	9,740	19,445	38,850	38,700	14,190	9,260	0	0	0	130,185	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	231	461	921	917	336	219	0	0	0	3,085	
928-AFUDC Debt Reg	0	0	0	0	5	20	51	92	120	132	0	0	0	420	
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	-4,121	-8,227	-16,437	-16,373	-6,004	-3,918	0	0	0	-55,080	
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	5,855	11,699	23,385	23,336	8,642	5,693	0	0	0	78,610	
825-Clearings	0	0	0	0	0	0	0	0	0	-78,612	0	0	0	-78,612	
Clr Sum	0	0	0	0	0	0	0	0	0	-78,612	0	0	0	-78,612	
Proj Net	0	0	0	0	5,855	11,699	23,385	23,336	8,642	-72,919	0	0	0	-2	

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616536	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	130,185	0	0	0	0	0	0	0	0	0	0	0	0	130,185
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	3,085	0	0	0	0	0	0	0	0	0	0	0	0	3,085
	928-AFUDC Debt Reg	420	0	0	0	0	0	0	0	0	0	0	0	0	420
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-55,080	0	0	0	0	0	0	0	0	0	0	0	0	-55,080
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	78,610	0	0	0	0	0	0	0	0	0	0	0	0	78,610
	825-Clearings	-78,612	0	0	0	0	0	0	0	0	0	0	0	0	-78,612
	Clr Sum	-78,612	0	0	0	0	0	0	0	0	0	0	0	0	-78,612
	Proj Net	-2	0	0	0	0	0	0	0	0	0	0	0	0	-2

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76616815 Common NERC Test Lab Equipment***

Company: 003

Location: 766 San Juan

Project Information

Construction Start Date 7/1/2016 Estimated Completion Date 10/30/2016

List Interim In-Service Dates

0

Project Need Justification

NERC CIP standards require that all configuration changes be tested in a test lab environment prior to being deployed into a production system. Maintaining an updated lab environment reflective of the production system will reduce the potential for violations and allow for more reliable operation when the designs are tested prior to deployment. This can allow for issues to be brought to the forefront prior to being caught within production. The testing and design of new systems, and proposed resolutions for equipment issues can be tested within this test environment to avoid active testing within a production environment that may adversely impact the reliable operation of generation.

Project Alternatives

There are no alternatives to this project. It is a compliance requirement. The equipment purchased and installed in the is required to be the same equipment that is installed in the field. This includes instrumentation, protection devices, hardware devices and operating software. The furniture is mainly workbenches and stools designed for technicians to troubleshoot and test equipment.

Technical Aspects

Add materials, software, instruments, devices, controllers, servers and other equipment to the test lab to be used for training, debugging and testing prior to deploying equipment, configurations, software and systems on the production control network. This insures a reliable tested setup prior to production rollout.

This will include

- Lab Environmental monitoring
- Schneider Electric (formerly Foxboro) hardware and software
- PLC/PAC (Programmable Logic Controller/Programmable Automation Controller) hardware and software
- Network devices including switches, routers, firewalls, and cabling
- Labeling equipment
- Cable management equipment
- Furniture

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

- HVAC equipment and installation
- Storage facilities for staging and lifecycle replacement

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76616815	Year	2015										
Cost_Type	Bal 3/31/15			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
120-Overtime-General	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
370-Outside Services	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
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	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
914-Pension and Benefits Load	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
918-San Juan AR-Labor	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
922-Minor Material Load	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
926-A and G Loads	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
929-AFUDC - Equity Regular	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
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0
Cost Sum	0			0	0	0	0	0	0	0	0	0	0
825-Clearings	0			0	0	0	0	0	0	0	0	0	0
Clr Sum	0			0	0	0	0	0	0	0	0	0	0
Proj Net	0			0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616815	Year	2016												
	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	40,000	40,000	40,000	0	0	0	120,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	0	0	948	948	948	0	0	0	2,844
	928-AFUDC Debt Reg	0	0	0	0	0	0	0	21	63	105	0	0	0	189
	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	-16,923	-16,923	-16,923	0	0	0	-50,769
	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	24,046	24,088	24,130	0	0	0	72,264
	825-Clearings	0	0	0	0	0	0	0	0	0	-72,263	0	0	0	-72,263
	Clr Sum	0	0	0	0	0	0	0	0	0	-72,263	0	0	0	-72,263
	Proj Net	0	0	0	0	0	0	0	24,046	24,088	-48,133	0	0	0	1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616815	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	120,000	0	0	0	0	0	0	0	0	0	0	0	0	120,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	2,844	0	0	0	0	0	0	0	0	0	0	0	0	2,844
	928-AFUDC Debt Reg	189	0	0	0	0	0	0	0	0	0	0	0	0	189
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-50,769	0	0	0	0	0	0	0	0	0	0	0	0	-50,769
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	72,264	0	0	0	0	0	0	0	0	0	0	0	0	72,264
	825-Clearings	-72,263	0	0	0	0	0	0	0	0	0	0	0	0	-72,263
	Clr Sum	-72,263	0	0	0	0	0	0	0	0	0	0	0	0	-72,263
Proj Net		1	0	0	0	0	0	0	0	0	0	0	0	0	1

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***Project No: 76616915 Common Oxidation Blower Backup Power***

Company: 003  
Location: 766 San Juan

Project Information

Construction Start Date 7/1/2015 Estimated Completion Date 09/30/2015

List Interim In-Service Dates

0

Project Need Justification

This project is designed to eliminate a single point of failure in systems that support all units. Loss of power at the oxidation air block can result in the need to shut down all operating units until power can be restored.

The oxidation air block (which consist of three oxidation air blower and some auxiliary equipment) controls are powered by a single electrical feed. The oxidation air block is a critical system to plant operations. Critical systems are normally installed with separate and redundant power feeds. Redundant power feeds were not installed as part of the original construction of the oxidation air block. This project is intended to correct that deficiency.

Prudent design for reliability prohibits a single power source to a critical system.

The scope of work includes the installation of a power feed from a different and separate source and switching capability at the power distribution panel.

Project Alternatives

The alternative is to continue with the current configuration and run the risk of a power failure causing all units to be removed from service.

The option selected to remedy this design deficiency is to provide a redundant power feed from the source geographically closest to the oxidation air block that is not tied to the current power feed source. Any other source would have a more costly installation due to the added length of cable and conduit.

Technical Aspects

Install a redundant power feed to the blowers which support plant wide FGD operation. The backup power is a separate power feed coming from an independent source.

The scope of work includes 600V power cable and manual transfer switches. Since the oxidation air system can manage brief power interruptions, manual power transfer switches and not automatic transfer switches will be installed. Manual transfer switches are less expensive than automatic power transfer switches.

Cost Year 01

Project	76616915	Year	2015
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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76616915	Year	2016												
	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	150,000	0	0	0	0	0	0	0	0	0	0	0	0	150,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	3,555	0	0	0	0	0	0	0	0	0	0	0	0	3,555
	928-AFUDC Debt Reg	233	0	0	0	0	0	0	0	0	0	0	0	0	233
	929-AFUDC - Equity Regular	332	0	0	0	0	0	0	0	0	0	0	0	0	332
	937-San Juan AR - Other	-63,463	0	0	0	0	0	0	0	0	0	0	0	0	-63,463
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	90,657	0	0	0	0	0	0	0	0	0	0	0	0	90,657
	825-Clearings	-90,657	0	0	0	0	0	0	0	0	0	0	0	0	-90,657
	Clr Sum	-90,657	0	0	0	0	0	0	0	0	0	0	0	0	-90,657
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76616915	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	150,000	0	0	0	0	0	0	0	0	0	0	0	0	150,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	3,555	0	0	0	0	0	0	0	0	0	0	0	0	3,555
	928-AFUDC Debt Reg	233	0	0	0	0	0	0	0	0	0	0	0	0	233
	929-AFUDC - Equity Regular	332	0	0	0	0	0	0	0	0	0	0	0	0	332
	937-San Juan AR - Other	-63,463	0	0	0	0	0	0	0	0	0	0	0	0	-63,463
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	90,657	0	0	0	0	0	0	0	0	0	0	0	0	90,657
	825-Clearings	-90,657	0	0	0	0	0	0	0	0	0	0	0	0	-90,657
	Clr Sum	-90,657	0	0	0	0	0	0	0	0	0	0	0	0	-90,657
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76617015 Common Oxidation Blower Separate PLC Control***

Company: 003

Location: 766 San Juan

**Project Information**

Construction Start Date 4/1/2016

Estimated Completion Date 7/30/2016

List Interim In-Service Dates

0

Project Need Justification

Control system integrity on the Unit 1-4 Oxidation Blower Control System is in a compromised state. This system provides Oxidation Air to Scrubbers and is necessary for Environmental System operation. This system must be replaced.

The cost of the project includes materials, internal labor for installation, project management, general and administrative loads and AFUDC.

Control System Components are obsolete and failing resulting in multiple equipment trips on the Oxidation Blowers. RTD multiplexing relay system is failing and resulting in excessive trips on system. Field Components are obsolete and have begun to fail. Vibration system components are unavailable and have existing jumpers installed bypassing trips on system. Valve Positioners are obsolete and needing replacement.

Project Alternatives

The alternative is to continue to maintain the existing equipment but this will become increasingly costly and difficult as replacement parts become harder to find.

Technical Aspects

Work scope to include:

Replacement of obsolete Oxidation Blower Control System:

(1) Upgrade of obsolete PLC system and Field Control Components

(A) Existing PLC rack and I/O to be removed and replaced utilizing existing Control Processor with remote I/O rack.

(B) Field control components to removed and replaced with up to date components.

(i) to include vibration system for Motors and Blowers to replace existing equipment.

(ii) valve control components to replace as needed to maintain operational integrity.

(iii) Engineering necessary to design, and update configuration and drawings as necessary.

(iv) Labor necessary to install and commission new hardware and components

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76617015	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	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			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	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			
922-Minor Material Load	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			
926-A and G Loads	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			
929-AFUDC - Equity Regular	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			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	0	0	0	0	0	0	0	0	0	0	0			
825-Clearings	0	0	0	0	0	0	0	0	0	0	0			
Clr Sum	0	0	0	0	0	0	0	0	0	0	0			
Proj Net	0	0	0	0	0	0	0	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76617015	Year	2016												
	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	30,000	30,000	40,000	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	711	711	948	0	0	0	0	0	0	2,370
	928-AFUDC Debt Reg	0	0	0	0	16	47	84	0	0	0	0	0	0	147
	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	-12,693	-12,693	-16,923	0	0	0	0	0	0	-42,309
	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	18,034	18,065	24,109	0	0	0	0	0	0	60,208
	825-Clearings	0	0	0	0	0	0	-60,209	0	0	0	0	0	0	-60,209
	Clr Sum	0	0	0	0	0	0	-60,209	0	0	0	0	0	0	-60,209
	Proj Net	0	0	0	0	18,034	18,065	-36,100	0	0	0	0	0	0	-1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76617015	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	2,370	0	0	0	0	0	0	0	0	0	0	0	0	2,370
	928-AFUDC Debt Reg	147	0	0	0	0	0	0	0	0	0	0	0	0	147
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-42,309	0	0	0	0	0	0	0	0	0	0	0	0	-42,309
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	60,208	0	0	0	0	0	0	0	0	0	0	0	0	60,208
	825-Clearings	-60,209	0	0	0	0	0	0	0	0	0	0	0	0	-60,209
	Clr Sum	-60,209	0	0	0	0	0	0	0	0	0	0	0	0	-60,209
	Proj Net	-1	0	0	0	0	0	0	0	0	0	0	0	0	-1

***Project No: 76628036 Plant Common Foxboro I/O and CP Replacement - Coal Handling***

Company: 003  
Location: 766 San Juan

**Project Information**

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

List Interim In-Service Dates

0

Project Need Justification

The Foxboro Series 100 I/O within Limestone Preparation Area is reaching the end of life. Limestone Preparation area provides limestone for the SO<sub>2</sub> Removal Process. Foxboro maintains a continuously current philosophy for control networks. This philosophy promises to protect the initial investment. This process allows for 85% of the initial investment to be kept intact and the Foxboro I/A Series system continuously infuses with the latest technology, maintaining interoperability with earlier generations.

The 100 series FBM upgraded solution supports this philosophy, providing a cost-effective upgrade path to the I/A Series system's latest fieldbus modules- the 200 Series FBM product line.

The new 200 series FBM rack-mounted inserts to plug-in directly to the existing 100 series cells. This plug-in approach significantly reduces downtime by preserving existing infrastructure and field wiring-minimizing the cost, risk and process impact to plant operations.

Benefits will include

- Improved performance and lifecycle management and extend the life of the I/A Series system.
- Preserve investment in infrastructure and design. The design allows for a fast and easy installation with minimal downtime, risk and cost. The latest technology is available for upgrade.
- Minimal configuration efforts, approximately 99% of existing control block logic and 100% of process displays are utilized.
- I/A Series system 200 Series FBMs-Improved diagnostics, predictive maintenance capabilities and increased reliability.
- Faster, more powerful and fault-tolerant controllers-triple the block processing speeds, with twice the capacity.

This project is included in the test period projected balances for CWIP related to generation, transmission, distribution, and general and intangible plant as of September 30, 2016 that are projected to be in service within five months after the end of the test period.

Pursuant to NMSA 1978, § 62-6-14(E), a utility is allowed to request to include in rate base CWIP for projects that are projected to be in service the lesser of five months after the end of the test period or 24 months after the end of the base period. PNM is requesting the inclusion of CWIP balances for projects such as this one with a projected in-service date by February 2017.

Project Alternatives

The alternative to this investment is to replace the DCS system with significantly more investment required for hardware and engineering. It is estimated that this alternative would be a project with a multi-million dollar investment requiring multi- year engineering efforts.

Technical Aspects

Replace existing obsolete controls Input/output (I/O) modules with state of the art electronic devices/O Modules.

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76628036	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	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
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	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
	929-AFUDC - Equity Regular	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
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	0	0	0	0	0	0	0	0
	825-Clearings	0		0	0	0	0	0	0	0	0	0	0
	Clr Sum	0		0	0	0	0	0	0	0	0	0	0
	Proj Net	0		0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76628036	Year	2016												
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	7,130	10,000	10,000	10,000	10,000	10,000	10,000	10,000	20,000	20,000	0	0	117,130	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	10	32	62	87	125	148	181	210	245	310	0	0	1,410	
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	169	237	237	237	237	237	237	237	474	474	0	0	2,776	
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	-3,017	-4,231	-4,231	-4,231	-4,231	-4,231	-4,231	-4,231	-8,462	-8,462	0	0	-49,558	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	0	4,292	6,038	6,068	6,093	6,131	6,154	6,187	6,216	12,257	12,322	0	0	71,758	
825-Clearings	0	0	0	0	0	0	0	0	0	0	-71,761	0	0	-71,761	
Clr Sum	0	0	0	0	0	0	0	0	0	0	-71,761	0	0	-71,761	
Proj Net	0	4,292	6,038	6,068	6,093	6,131	6,154	6,187	6,216	12,257	-59,439	0	0	-3	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76628036	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	117,130	0	0	0	0	0	0	0	0	0	0	0	0	117,130
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	1,410	0	0	0	0	0	0	0	0	0	0	0	0	1,410
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	2,776	0	0	0	0	0	0	0	0	0	0	0	0	2,776
	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	-49,558	0	0	0	0	0	0	0	0	0	0	0	0	-49,558
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	71,758	0	0	0	0	0	0	0	0	0	0	0	0	71,758
	825-Clearings	-71,761	0	0	0	0	0	0	0	0	0	0	0	0	-71,761
	Clr Sum	-71,761	0	0	0	0	0	0	0	0	0	0	0	0	-71,761
	Proj Net	-3	0	0	0	0	0	0	0	0	0	0	0	0	-3

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***Project No: 76628042 Plant Common AB/RS View Hardware/Licensing (Virtualization) NERC***

Company: 003  
Location: 766 San Juan

Project Information

Construction Start Date 2/1/2014 Estimated Completion Date 9/30/2015

List Interim In-Service Dates

0

Project Need Justification

The RSView Enterprise Series is the software suite designed for Rockwell (formerly Allen Bradley) Automation's ViewAnyWare products. The goal of the RSView Enterprise Series is to provide a common development environment, application reuse, and an integrated architecture so you can increase productivity, reduce operation costs, and improve quality.

San Juan has standardized on Allen Bradley Programmable Logic Controllers (PLCs) as the processor for process control applications outside of the Distributed Control System (DCS). This software will enable more efficient maintenance and modification to process control logic.

This software is also necessary to comply with NERC requirements associated with testing control systems prior to introducing the controls in a production environment.

The scope of work is the purchase and installation of a software package. Software tutorials are included. The project cost includes the software, internal labor for installation and internal labor for training.

Project Alternatives

Without this software, any changes to PLC based control applications would have to be tested in the field before final implementation. This cannot always be practically accomplished without increasing outage time on the units.

The selected alternative is the more efficient approach to PLC maintenance and NERC compliance.

Technical Aspects

Purchase and install software which will make Allen Bradley programmable logic controllers compliant with NERC standards.

**PNM EXHIBIT CMO-4**

Project	76628042	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	0		0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	41,767		0	0	0	0	0	0	0	0	0	41,767
	370-Outside Services	0		0	0	9,800	9,800	9,800	7,500	0	0	0	36,900
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	9,232		0	0	0	0	0	0	0	0	0	9,232
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		222	223	238	265	293	318	0	0	0	1,560
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	-346		0	0	0	0	0	0	0	0	0	-346
	915-Injuries and Damages Load	-454		0	0	0	0	0	0	0	0	0	-454
	918-San Juan AR-Labor	3,521		0	0	0	0	0	0	0	0	0	3,521
	921-Stores / Purchasing Load	323		0	0	0	0	0	0	0	0	0	323
	922-Minor Material Load	0		0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,253		0	0	0	0	0	0	0	0	0	1,253
	926-A and G Loads	1,209		0	0	232	232	232	178	0	0	0	2,083
	928-AFUDC Debt Reg	1,314		0	0	0	0	0	0	0	0	0	1,314
	929-AFUDC - Equity Regular	1,916		0	0	0	0	0	0	0	0	0	1,916
	937-San Juan AR - Other	-10,568		0	0	-4,146	-4,146	-4,146	-3,173	0	0	0	-26,180
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	49,165		222	223	6,124	6,151	6,179	4,823	0	0	0	72,887
	825-Clearings	0		0	0	0	0	0	-72,887	0	0	0	-72,887
	Clr Sum	0		0	0	0	0	0	-72,887	0	0	0	-72,887
Proj Net		49,165		222	223	6,124	6,151	6,179	-68,065	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76628042	Year	2016												
	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	41,767	0	0	0	0	0	0	0	0	0	0	0	0	41,767
	370-Outside Services	36,900	0	0	0	0	0	0	0	0	0	0	0	0	36,900
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	9,232	0	0	0	0	0	0	0	0	0	0	0	0	9,232
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	1,560	0	0	0	0	0	0	0	0	0	0	0	0	1,560
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	-346	0	0	0	0	0	0	0	0	0	0	0	0	-346
	915-Injuries and Damages Load	-454	0	0	0	0	0	0	0	0	0	0	0	0	-454
	918-San Juan AR-Labor	3,521	0	0	0	0	0	0	0	0	0	0	0	0	3,521
	921-Stores / Purchasing Load	323	0	0	0	0	0	0	0	0	0	0	0	0	323
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,253	0	0	0	0	0	0	0	0	0	0	0	0	1,253
	926-A and G Loads	2,083	0	0	0	0	0	0	0	0	0	0	0	0	2,083
	928-AFUDC Debt Reg	1,314	0	0	0	0	0	0	0	0	0	0	0	0	1,314
	929-AFUDC - Equity Regular	1,916	0	0	0	0	0	0	0	0	0	0	0	0	1,916
	937-San Juan AR - Other	-26,180	0	0	0	0	0	0	0	0	0	0	0	0	-26,180
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	72,887	0	0	0	0	0	0	0	0	0	0	0	0	72,887
	825-Clearings	-72,887	0	0	0	0	0	0	0	0	0	0	0	0	-72,887
	Clr Sum	-72,887	0	0	0	0	0	0	0	0	0	0	0	0	-72,887
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76628042	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	41,767	0	0	0	0	0	0	0	0	0	0	0	0	41,767
	370-Outside Services	36,900	0	0	0	0	0	0	0	0	0	0	0	0	36,900
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	9,232	0	0	0	0	0	0	0	0	0	0	0	0	9,232
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	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	1,560	0	0	0	0	0	0	0	0	0	0	0	0	1,560
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	-346	0	0	0	0	0	0	0	0	0	0	0	0	-346
	915-Injuries and Damages Load	-454	0	0	0	0	0	0	0	0	0	0	0	0	-454
	918-San Juan AR-Labor	3,521	0	0	0	0	0	0	0	0	0	0	0	0	3,521
	921-Stores / Purchasing Load	323	0	0	0	0	0	0	0	0	0	0	0	0	323
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,253	0	0	0	0	0	0	0	0	0	0	0	0	1,253
	926-A and G Loads	2,083	0	0	0	0	0	0	0	0	0	0	0	0	2,083
	928-AFUDC Debt Reg	1,314	0	0	0	0	0	0	0	0	0	0	0	0	1,314
	929-AFUDC - Equity Regular	1,916	0	0	0	0	0	0	0	0	0	0	0	0	1,916
	937-San Juan AR - Other	-26,180	0	0	0	0	0	0	0	0	0	0	0	0	-26,180
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	72,887	0	0	0	0	0	0	0	0	0	0	0	0	72,887
	825-Clearings	-72,887	0	0	0	0	0	0	0	0	0	0	0	0	-72,887
	Clr Sum	-72,887	0	0	0	0	0	0	0	0	0	0	0	0	-72,887
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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**Project No: 76628044   Plant Common Multifactor Authentication NERC**

Company:        003  
Location:        766 San Juan

Project Information			
<u>Construction Start Date</u>	1/1/2015	<u>Estimated Completion Date</u>	12/31/2015
<u>List Interim In-Service Dates</u>	0		

Project Need Justification  
As an owner and operator of a Bulk Electric System (BES), PNM is required to comply with applicable standards from NERC.

This project is to purchase and install software and/or recognition systems to enhance security of cyber assets. Multifactor authentication is a dual means of identification (password plus token, fingerprint, retinal scan, etc.) which allows only authorized personal to access control applications.

Use of multifactor authentication is required to gain access to NERC defined Critical Cyber Assets (CCAs). CCAs include the Distributed Control System (DCS) which controls the operation of each unit's boiler, turbine, generator and many auxiliary systems.

Project Alternatives  
There is no alternative to meeting the compliance requirement for multifactor authentication.  
The software decision (Privileged) was made through a competitive bidding process.

Technical Aspects  
The scope of work is the purchase and installation of a multifactor identification software package, initial configuration of the package and registering of employee identification credentials for all employees who, by job description, must access Critical Cyber Assets.

**PNM EXHIBIT CMO-4**

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76628044	Year	2016												
	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	38,322	0	0	0	0	0	0	0	0	0	0	0	0	38,322
	370-Outside Services	99,500	0	0	0	0	0	0	0	0	0	0	0	0	99,500
	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	1,903	0	0	0	0	0	0	0	0	0	0	0	0	1,903
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	257	0	0	0	0	0	0	0	0	0	0	0	0	257
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	410	0	0	0	0	0	0	0	0	0	0	0	0	410
	926-A and G Loads	3,266	0	0	0	0	0	0	0	0	0	0	0	0	3,266
	928-AFUDC Debt Reg	71	0	0	0	0	0	0	0	0	0	0	0	0	71
	929-AFUDC - Equity Regular	108	0	0	0	0	0	0	0	0	0	0	0	0	108
	937-San Juan AR - Other	-63,523	0	0	0	0	0	0	0	0	0	0	0	0	-63,523
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	80,313	0	0	0	0	0	0	0	0	0	0	0	0	80,313
	825-Clearings	-80,313	0	0	0	0	0	0	0	0	0	0	0	0	-80,313
	Clr Sum	-80,313	0	0	0	0	0	0	0	0	0	0	0	0	-80,313
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76628044	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	38,322	0	0	0	0	0	0	0	0	0	0	0	0	38,322
	370-Outside Services	99,500	0	0	0	0	0	0	0	0	0	0	0	0	99,500
	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	1,903	0	0	0	0	0	0	0	0	0	0	0	0	1,903
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	257	0	0	0	0	0	0	0	0	0	0	0	0	257
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	410	0	0	0	0	0	0	0	0	0	0	0	0	410
	926-A and G Loads	3,266	0	0	0	0	0	0	0	0	0	0	0	0	3,266
	928-AFUDC Debt Reg	71	0	0	0	0	0	0	0	0	0	0	0	0	71
	929-AFUDC - Equity Regular	108	0	0	0	0	0	0	0	0	0	0	0	0	108
	937-San Juan AR - Other	-63,523	0	0	0	0	0	0	0	0	0	0	0	0	-63,523
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	80,313	0	0	0	0	0	0	0	0	0	0	0	0	80,313
	825-Clearings	-80,313	0	0	0	0	0	0	0	0	0	0	0	0	-80,313
	Clr Sum	-80,313	0	0	0	0	0	0	0	0	0	0	0	0	-80,313
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0



***Project No: 76628047 Foxboro I/A Version 8.8 Limestone / Coal NERC***

Company: 003  
Location: 766 San Juan

Project Information

Construction Start Date 10/1/2014 Estimated Completion Date 3/31/2015

List Interim In-Service Dates

0

Project Need Justification

As an owner and operator of a Bulk Electric System (BES), PNM is required to comply with applicable standards from NERC.

The scope of this project is to replace the existing Foxboro I/A version 8.7 operating system for the Limestone/Coal Handling Distributed Control System (DCS) with a supported Operating System (Foxboro I/A Version 8.8). This upgrade includes hardware to include server class machines and new Operator Human Machine Interfaces. The new control network software allows for adaptation of servers, switches and fiber. The virtual machines allows for a more robust setup for Operators and the DCS System.

Foxboro Version 8.7 system support is ending. Without support, reliability issues, security, and other problems cannot be resolved. Version 8.8 of I/A is required to have a supported infrastructure, including but not limited to Operating Systems, software, and virtual infrastructure. Prior versions could no longer be patched and were vulnerable to problems that would not be resolved by the vendor.

Additional benefits include faster throughput, with communication speeds of 1 Gb per second possible. There are point to point data routing allowing multiple communications to run simultaneously, greater reliability with alternate communications paths between all stations, and the "self-healing" design is utilized. The control network provides fast response to faults with redundancy at every level. There is increased distances supported which allows for better plant topology match. The upgraded software allows for standard fiber optic and switch technology (no proprietary cell busses, packaging or networks) to be utilized.

Workstations are moved to reliable, server-class as well as multi-purpose workstations based on the latest technology. The multipurpose workstations provide a versatile and robust platform for human to machine interface, data acquisition, historian, engineering and configuration functions and applications. All workstations support annunciator keyboards and up to four monitors.

The project will provide versatile workstations in general-purpose rack mounted configuration. Operator workstations will utilize thin-client technology and new wide aspect monitors, with redundant fiber Ethernet connections to the plant control network to support high availability communications.

In summary, the project will provide better control through improved communications throughout the system, higher speed, and longer distances allowed for better match with plant topology. All the fiber networks eliminate electrical noise and grounding.

Project Alternatives

There are no viable alternatives to this project. The Distributed Control System (DCS) is a proprietary product. The Original Equipment Manufacturer (OEM) is discontinuing support for the version of software installed on the Unit 4 DCS. The software upgrade requires upgraded hardware (servers) to support the new software. Replacing the existing DCS with a system from another manufacturer is an option but the cost and time required to replace the DCS are prohibitive.

Technical Aspects

The scope of work includes upgrading the operating software to the latest release, replacing existing servers with “thin client” servers, replacing control room monitors and keyboards to devices that are compatible with the new servers.

The project cost includes engineering, materials, internal labor, technical support, project management, general and administrative loads and AFUDC.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76628047	Year	2015											
Cost_Type	Bal 3/31/15	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			
120-Overtime-General	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			
370-Outside Services	56,768	0	0	0	0	9,500	9,500	0	0	0	75,768			
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0			
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0			
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0			
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0			
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0			
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0			
807-Non Refundable Contribution	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			
426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0			
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0			
909-Luna AR - Other	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			
914-Pension and Benefits Load	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			
918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0			
921-Stores / Purchasing Load	380	0	0	0	0	0	0	0	0	0	380			
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0			
925-E and S Loads	1,382	0	0	0	0	0	0	0	0	0	1,382			
926-A and G Loads	1,345	0	0	0	0	225	225	0	0	0	1,796			
928-AFUDC Debt Reg	524	103	103	104	105	113	128	0	0	0	1,179			
929-AFUDC - Equity Regular	762	147	147	148	149	161	183	0	0	0	1,697			
937-San Juan AR - Other	-21,332	0	0	0	0	-4,019	-4,019	0	0	0	-29,370			
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0			
Cost Sum	39,830	249	251	252	254	5,979	6,017	0	0	0	52,832			
825-Clearings	0	0	0	0	0	0	-52,832	0	0	0	-52,832			
Clr Sum	0	0	0	0	0	0	-52,832	0	0	0	-52,832			
Proj Net	39,830	249	251	252	254	5,979	-46,815	0	0	0	0			

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project 76628047	Year	2016													
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	75,768	0	0	0	0	0	0	0	0	0	0	0	0	75,768	
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	380	0	0	0	0	0	0	0	0	0	0	0	0	380	
922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
925-E and S Loads	1,382	0	0	0	0	0	0	0	0	0	0	0	0	1,382	
926-A and G Loads	1,796	0	0	0	0	0	0	0	0	0	0	0	0	1,796	
928-AFUDC Debt Reg	1,179	0	0	0	0	0	0	0	0	0	0	0	0	1,179	
929-AFUDC - Equity Regular	1,697	0	0	0	0	0	0	0	0	0	0	0	0	1,697	
937-San Juan AR - Other	-29,370	0	0	0	0	0	0	0	0	0	0	0	0	-29,370	
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cost Sum	52,832	0	0	0	0	0	0	0	0	0	0	0	0	52,832	
825-Clearings	-52,832	0	0	0	0	0	0	0	0	0	0	0	0	-52,832	
Clr Sum	-52,832	0	0	0	0	0	0	0	0	0	0	0	0	-52,832	
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76628047	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	75,768	0	0	0	0	0	0	0	0	0	0	0	0	75,768
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	380	0	0	0	0	0	0	0	0	0	0	0	0	380
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,382	0	0	0	0	0	0	0	0	0	0	0	0	1,382
	926-A and G Loads	1,796	0	0	0	0	0	0	0	0	0	0	0	0	1,796
	928-AFUDC Debt Reg	1,179	0	0	0	0	0	0	0	0	0	0	0	0	1,179
	929-AFUDC - Equity Regular	1,697	0	0	0	0	0	0	0	0	0	0	0	0	1,697
	937-San Juan AR - Other	-29,370	0	0	0	0	0	0	0	0	0	0	0	0	-29,370
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	52,832	0	0	0	0	0	0	0	0	0	0	0	0	52,832
	825-Clearings	-52,832	0	0	0	0	0	0	0	0	0	0	0	0	-52,832
	Clr Sum	-52,832	0	0	0	0	0	0	0	0	0	0	0	0	-52,832
Proj Net		0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76628215 Common NERC Malware Scanning KIOSK***

Company: 003  
Location: 766 San Juan

**Project Information**

Construction Start Date 5/1/2015 Estimated Completion Date 7/31/2016

List Interim In-Service Dates

0

Project Need Justification

This project is intended to prevent computer viruses, malware and other system security issues from being introduced to San Juan Station Critical Cyber Assets.

The scope of work includes both hardware and software that will be used to scan any external media for malware before it is permitted to be plugged into the control system.

Introduction of any virus or malware is a NERC reportable incident and could result in citations and/or penalties.

The project cost includes software, software support and hardware (basically a laptop) that can interface with all varieties of external media. The cost is based on preliminary quotes.

Project Alternatives

The Malware Scanning Software will be selected through a competitive bidding process.

Technical Aspects

Purchase hardware (a laptop computer) and install software that can scan external media and detect malware and viruses.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76628215	Year	2015												
Cost_Type	Bal 3/31/15			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		
120-Overtime-General	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		
370-Outside Services	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		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0		
807-Non Refundable Contribution	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		
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0		
909-Luna AR - Other	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		
914-Pension and Benefits Load	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		
918-San Juan AR-Labor	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		
922-Minor Material Load	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		
926-A and G Loads	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		
929-AFUDC - Equity Regular	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		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0	0	0	0		

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76628215	Year	2016												
	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	10,000	10,000	40,000	0	0	0	0	0	60,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	0	237	237	948	0	0	0	0	0	1,422
	928-AFUDC Debt Reg	0	0	0	0	0	5	16	42	0	0	0	0	0	63
	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	-4,231	-4,231	-16,923	0	0	0	0	0	-25,385
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	0	0	0	0	0	6,011	6,022	24,067	0	0	0	0	0	36,100
	825-Clearings	0	0	0	0	0	0	0	-36,100	0	0	0	0	0	-36,100
	Clr Sum	0	0	0	0	0	0	0	-36,100	0	0	0	0	0	-36,100
	Proj Net	0	0	0	0	0	6,011	6,022	-12,033	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76628215	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	60,000	0	0	0	0	0	0	0	0	0	0	0	0	60,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	1,422	0	0	0	0	0	0	0	0	0	0	0	0	1,422
	928-AFUDC Debt Reg	63	0	0	0	0	0	0	0	0	0	0	0	0	63
	929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	937-San Juan AR - Other	-25,385	0	0	0	0	0	0	0	0	0	0	0	0	-25,385
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	36,100	0	0	0	0	0	0	0	0	0	0	0	0	36,100
	825-Clearings	-36,100	0	0	0	0	0	0	0	0	0	0	0	0	-36,100
	Clr Sum	-36,100	0	0	0	0	0	0	0	0	0	0	0	0	-36,100
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

***Project No: 76628515 Common Connect CEM NETDAHS to PI Historian***

Company: 003  
Location: 766 San Juan

**Project Information**

Construction Start Date 4/1/2016 Estimated Completion Date 7/30/2016

List Interim In-Service Dates

0

Project Need Justification

CEM data is currently stored in the Matrikon historian and accessed through the NETDAHS. NETDAHS serves as an interface for accessing the Matrikon historian, which uses a custom software to read OPC data. This project aims to connect the PI System at SJGS to the NETDAHS, for a larger, scalable historian solution. This will leverage the analytic tools of the OSIsoft PI System and the various tools in the Data Visualization suite. This will allow for a single source of information to troubleshoot, perform root cause analysis, data reporting, and various other tasks. Additionally, connecting the two systems helps as there are more personnel with PI system experience (administrators, and users) and a companywide analytics approach allowing leveraging of custom software, and reporting packages for future integration.

The PI System is the current corporate data analytics historian. By connecting the PI System to the NETDAHS machine, we can pull all CEM data into the PI System. This expands the archiving size, as it is scalable, with failover retention to minimize data loss. In addition, trending will be available to everyone with the PI visualization suite, which has a large user base at SJGS. The NETDAHS uses a custom interface to talk OPC, and has only one system expert on site. Merging the two, will increase data usage and increase the scalability and reliability of the data. In short, the return on investment should be rather quick, as everyone can see, use, and leverage the data in their projects, operations, and troubleshooting, while having a large data archive with failover abilities for better data retention and reliability.

Project Alternatives

The alternative is to continue to maintain the existing equipment and forfeit the benefits stated in the Project Need Justification System.

Technical Aspects

Purchase and configure software to integrate two data acquisition systems into one database.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76628515	Year	2015												
Cost_Type	Bal 3/31/15			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		
120-Overtime-General	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		
370-Outside Services	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		
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0		
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0		
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0		
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0		
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0		
807-Non Refundable Contribution	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		
426-Capitalized Interest	0			0	0	0	0	0	0	0	0	0	0		
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0		
909-Luna AR - Other	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		
914-Pension and Benefits Load	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		
918-San Juan AR-Labor	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		
922-Minor Material Load	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		
926-A and G Loads	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		
929-AFUDC - Equity Regular	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		
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0		
Cost Sum	0			0	0	0	0	0	0	0	0	0	0		
825-Clearings	0			0	0	0	0	0	0	0	0	0	0		
Clr Sum	0			0	0	0	0	0	0	0	0	0	0		
Proj Net	0			0	0	0	0	0	0	0	0	0	0		

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76628515	Year	2016												
	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	50,000	50,000	50,000	0	0	0	0	0	0	150,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	0	0	0	0	1,185	1,185	1,185	0	0	0	0	0	0	3,555
	928-AFUDC Debt Reg	0	0	0	0	26	79	132	0	0	0	0	0	0	237
	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	-21,154	-21,154	-21,154	0	0	0	0	0	0	-63,462
	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	30,057	30,110	30,163	0	0	0	0	0	0	90,330
	825-Clearings	0	0	0	0	0	0	-90,329	0	0	0	0	0	0	-90,329
	Clr Sum	0	0	0	0	0	0	-90,329	0	0	0	0	0	0	-90,329
	Proj Net	0	0	0	0	30,057	30,110	-60,166	0	0	0	0	0	0	1

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76628515	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	150,000	0	0	0	0	0	0	0	0	0	0	0	0	150,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution		0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment		0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest		0	0	0	0	0	0	0	0	0	0	0	0	0	0
908-Luna AR - Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other		0	0	0	0	0	0	0	0	0	0	0	0	0	0
913-Payroll Taxes Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
914-Pension and Benefits Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
915-Injuries and Damages Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
918-San Juan AR-Labor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
921-Stores / Purchasing Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
922-Minor Material Load		0	0	0	0	0	0	0	0	0	0	0	0	0	0
925-E and S Loads		0	0	0	0	0	0	0	0	0	0	0	0	0	0
926-A and G Loads	3,555	0	0	0	0	0	0	0	0	0	0	0	0	0	3,555
928-AFUDC Debt Reg	237	0	0	0	0	0	0	0	0	0	0	0	0	0	237
929-AFUDC - Equity Regular	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
937-San Juan AR - Other	-63,462	0	0	0	0	0	0	0	0	0	0	0	0	0	-63,462
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	90,330	0	0	0	0	0	0	0	0	0	0	0	0	90,330
	825-Clearings	-90,329	0	0	0	0	0	0	0	0	0	0	0	0	-90,329
	Clr Sum	-90,329	0	0	0	0	0	0	0	0	0	0	0	0	-90,329
Proj Net		1	0	0	0	0	0	0	0	0	0	0	0	0	1

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***Project No: 76634015 Common Core Switch Replacement***

Company: 003  
Location: 766 San Juan

**Project Information**

Construction Start Date 5/1/2015 Estimated Completion Date 6/30/2015

List Interim In-Service Dates

Project Need Justification

A switch in the telecommunication system has failed and replacement is required. This is necessary maintenance that meets the criteria for capitalization.

This switch (a Cisco 6509) is the core of the San Juan Generating Station data network. This switch is the gateway through which all desktop computers at San Juan access the PNM corporate network, the internet and all local servers. Cisco ended support for this model switch on November 30, 2012. Switch failures resulted in 20 hours of network downtime in April 2015.

Project Alternatives

The replacement switch (a Cisco Nexus 9396PX) was identified through a competitive bidding process. The successful bidder was ANM.

Technical Aspects

Replace the failed and obsolete Cisco 6509 core switch with current technology (Cisco Nexus 9396PX).

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76634015	Year	2015										
	Cost_Type	Bal 3/31/15		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
	120-Overtime-General	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
	370-Outside Services	0		0	0	94,000	0	0	0	0	0	0	94,000
	374-Outside Svcs Legal	0		0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0		0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0		0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0		0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0		0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0		0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	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
	426-Capitalized Interest	0		0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0		0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	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
	914-Pension and Benefits Load	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
	918-San Juan AR-Labor	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
	922-Minor Material Load	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
	926-A and G Loads	0		0	0	2,228	0	0	0	0	0	0	2,228
	928-AFUDC Debt Reg	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
	937-San Juan AR - Other	0		0	0	-39,770	0	0	0	0	0	0	-39,770
	961-Luna A&G PNMR D&V	0		0	0	0	0	0	0	0	0	0	0
	Cost Sum	0		0	0	56,458	0	0	0	0	0	0	56,458
	825-Clearings	0		0	0	-56,458	0	0	0	0	0	0	-56,458
	Clr Sum	0		0	0	-56,458	0	0	0	0	0	0	-56,458
	Proj Net	0		0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76634015	Year	2016												
	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	94,000	0	0	0	0	0	0	0	0	0	0	0	0	94,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	2,228	0	0	0	0	0	0	0	0	0	0	0	0	2,228
	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	-39,770	0	0	0	0	0	0	0	0	0	0	0	0	-39,770
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	56,458	0	0	0	0	0	0	0	0	0	0	0	0	56,458
	825-Clearings	-56,458	0	0	0	0	0	0	0	0	0	0	0	0	-56,458
	Clr Sum	-56,458	0	0	0	0	0	0	0	0	0	0	0	0	-56,458
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76634015	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	94,000	0	0	0	0	0	0	0	0	0	0	0	0	94,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	913-Payroll Taxes Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	914-Pension and Benefits Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	915-Injuries and Damages Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	918-San Juan AR-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921-Stores / Purchasing Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	926-A and G Loads	2,228	0	0	0	0	0	0	0	0	0	0	0	0	2,228
	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	-39,770	0	0	0	0	0	0	0	0	0	0	0	0	-39,770
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	56,458	0	0	0	0	0	0	0	0	0	0	0	0	56,458
	825-Clearings	-56,458	0	0	0	0	0	0	0	0	0	0	0	0	-56,458
	Clr Sum	-56,458	0	0	0	0	0	0	0	0	0	0	0	0	-56,458
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 76717913 UNITS 3&4 AUXILIARY COOLING TOWER PLENUM STRUCTUR***

Company: 003  
Location: 767 San Juan

Project Information

Construction Start Date 11/3/2014 Estimated Completion Date 10/30/2016

List Interim In-Service Dates

The auxiliary cooling tower project will be in service on December 31, 2014.

Project Need Justification

During the planning phase of this project a structural assessment of the cooling tower plenum was conducted. The assessment indicated that structural members were sound and did not require replacement for several years. However, the tower drift eliminator were in serious disrepair. The project scope was reduced to replacement of the drift eliminators. The drift eliminators on the auxiliary tower are being replaced with in-kind materials. This is normal maintenance need to sustain the reliability of the unit and meets the criteria for capitalization.

Project Alternatives

The required replacement of the drift eliminators was awarded based on a competitive bidding process. The successful bidder was Midwest Cooling Towers. There were no technical alternatives to be considered. This is normal maintenance that meets the criteria for capitalization.

Technical Aspects

The scope of work includes removal and replacement of the drift eliminators is a 3 cell Marley Model 654 cooling tower.

- Removal of all existing drift eliminator modules, supports and seals.
- Replacement of structural materials as specified. (All girts penetrating DEs shall be replaced back to existing splice.)
- Installation of new high efficiency 15 mil PVC cellular drift eliminators rated with .001% drift factor by the manufacturer.
- Drift eliminators shall have distinct changes of direction at three impact zones, resulting in maximum drift droplet removal. Installation of new PVC drift eliminator supports with drain holes to direct the water back into the wet area.
- Install ¾" plywood drift eliminator air seal shelves as required.
- Supply and install temporary plywood and plastic sheeting in the plenum area to keep debris from falling into the cold water basin.
- Install PVC Dri-seals at all penetrations.
- Install ¾" plywood seal boards between bottom of drift eliminators extending a minimum of 6 inches below normal water level.
- Only one cell will be isolated during installation of DEs and associated components. DEs shall be replaced in all three cells.

Material Specification

- Drift Eliminators – Shall be three-pass sinusoidal wave type PVC assembled into either solvent welded or mechanically assembled modules. Drift eliminators shall be cellular in design and have a minimum drift rate of .001%. SPX/Marley TU12X or approved equal.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	76717913	Year	2015										
	Cost_Type	Bal 3/31/15	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
	110-Straight Time-General	1,427	0	0	0	0	0	0	0	0	0	1,427	
	120-Overtime-General	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	
	370-Outside Services	93,379	0	0	0	0	0	0	0	0	0	93,379	
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	
	807-Non Refundable Contribution	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	
	426-Capitalized Interest	0	0	0	0	0	0	0	0	0	0	0	
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	
	909-Luna AR - Other	0	0	0	0	0	0	0	0	0	0	0	
	913-Payroll Taxes Load	96	0	0	0	0	0	0	0	0	0	96	
	914-Pension and Benefits Load	413	0	0	0	0	0	0	0	0	0	413	
	915-Injuries and Damages Load	42	0	0	0	0	0	0	0	0	0	42	
	918-San Juan AR-Labor	-787	0	0	0	0	0	0	0	0	0	-787	
	921-Stores / Purchasing Load	626	0	0	0	0	0	0	0	0	0	626	
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	
	925-E and S Loads	1,162	0	0	0	0	0	0	0	0	0	1,162	
	926-A and G Loads	2,247	0	0	0	0	0	0	0	0	0	2,247	
	928-AFUDC Debt Reg	130	0	0	0	0	0	0	0	0	0	130	
	929-AFUDC - Equity Regular	185	0	0	0	0	0	0	0	0	0	185	
	937-San Juan AR - Other	-50,596	0	0	0	0	0	0	0	0	0	-50,596	
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	
	Cost Sum	48,323	0	0	0	0	0	0	0	0	0	48,323	
	825-Clearings	-38,851	0	-9,472	0	0	0	0	0	0	0	-48,323	
	Clr Sum	-38,851	0	-9,472	0	0	0	0	0	0	0	-48,323	
	Proj Net	9,472	0	-9,472	0	0	0	0	0	0	0	0	

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	76717913	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,427	0	0	0	0	0	0	0	0	0	0	0	0	1,427
	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	93,379	0	0	0	0	0	0	0	0	0	0	0	0	93,379
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	96	0	0	0	0	0	0	0	0	0	0	0	0	96
	914-Pension and Benefits Load	413	0	0	0	0	0	0	0	0	0	0	0	0	413
	915-Injuries and Damages Load	42	0	0	0	0	0	0	0	0	0	0	0	0	42
	918-San Juan AR-Labor	-787	0	0	0	0	0	0	0	0	0	0	0	0	-787
	921-Stores / Purchasing Load	626	0	0	0	0	0	0	0	0	0	0	0	0	626
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,162	0	0	0	0	0	0	0	0	0	0	0	0	1,162
	926-A and G Loads	2,247	0	0	0	0	0	0	0	0	0	0	0	0	2,247
	928-AFUDC Debt Reg	130	0	0	0	0	0	0	0	0	0	0	0	0	130
	929-AFUDC - Equity Regular	185	0	0	0	0	0	0	0	0	0	0	0	0	185
	937-San Juan AR - Other	-50,596	0	0	0	0	0	0	0	0	0	0	0	0	-50,596
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	48,323	0	0	0	0	0	0	0	0	0	0	0	0	48,323
	825-Clearings	-48,323	0	0	0	0	0	0	0	0	0	0	0	0	-48,323
	Clr Sum	-48,323	0	0	0	0	0	0	0	0	0	0	0	0	-48,323
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project	76717913	Year	2017												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	1,427	0	0	0	0	0	0	0	0	0	0	0	0	1,427
	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	93,379	0	0	0	0	0	0	0	0	0	0	0	0	93,379
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	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	96	0	0	0	0	0	0	0	0	0	0	0	0	96
	914-Pension and Benefits Load	413	0	0	0	0	0	0	0	0	0	0	0	0	413
	915-Injuries and Damages Load	42	0	0	0	0	0	0	0	0	0	0	0	0	42
	918-San Juan AR-Labor	-787	0	0	0	0	0	0	0	0	0	0	0	0	-787
	921-Stores / Purchasing Load	626	0	0	0	0	0	0	0	0	0	0	0	0	626
	922-Minor Material Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	925-E and S Loads	1,162	0	0	0	0	0	0	0	0	0	0	0	0	1,162
	926-A and G Loads	2,247	0	0	0	0	0	0	0	0	0	0	0	0	2,247
	928-AFUDC Debt Reg	130	0	0	0	0	0	0	0	0	0	0	0	0	130
	929-AFUDC - Equity Regular	185	0	0	0	0	0	0	0	0	0	0	0	0	185
	937-San Juan AR - Other	-50,596	0	0	0	0	0	0	0	0	0	0	0	0	-50,596
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	48,323	0	0	0	0	0	0	0	0	0	0	0	0	48,323
	825-Clearings	-48,323	0	0	0	0	0	0	0	0	0	0	0	0	-48,323
	Clr Sum	-48,323	0	0	0	0	0	0	0	0	0	0	0	0	-48,323
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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***Project No: 77930715    San Juan NERC Security Upgrades***

Company:        003  
Location:        779 San Juan

Project Information

Construction Start Date                    9/1/2015                    Estimated Completion Date                    11/30/2015

List Interim In-Service Dates

Project Need Justification

This project will add cameras and equipment for improved monitoring of the San Juan 230 kV and 345 kV control houses which are NERC-regulated areas. These improvements are in accordance with NERC CIP 006 (version 5), High Impact Bulk Electric Systems (BES) require two measures of access control and additional physical security requirements to ensure compliance is met. This area falls within the scope of CIP 006-5. This project will ensure that compliance is met and allow for increased security and allow for remote monitoring at the Albuquerque Downtown Security Operations Center.

Project Alternatives

These project improvements are required to continue to effectively meet NERC compliance. This project improves safety and security as needed to assure adequate monitoring of the facility. If the project is not completed and there is a security equipment failure of any length, NERC violations could occur, possibly costing PNM monetary damages. There is currently no security monitoring equipment at these sites.

In terms of alternative vendors, the corporate security supervisor will work with the supply chain analyst to obtain bids from outside contractors that will meet PNM's contractual needs, and meet the functional and economic requirements of the project.

Technical Aspects

This project includes purchase of CCTV security cameras, and security access card readers, cameras, and DVR monitoring equipment.

Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 01

Project	77930715	Year	2015										
Cost_Type	Bal 3/31/15			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
120-Overtime-General	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
370-Outside Services	0			0	0	0	0	0	0	50,500	49,500	0	100,000
374-Outside Svcs Legal	0			0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0			0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0			0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0			0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0			0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0			0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	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
426-Capitalized Interest	0			0	0	0	0	0	0	58	174	0	233
908-Luna AR - Labor	0			0	0	0	0	0	0	0	0	0	0
909-Luna AR - Other	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
914-Pension and Benefits Load	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
918-San Juan AR-Labor	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
922-Minor Material Load	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
926-A and G Loads	0			0	0	0	0	0	0	1,197	1,173	0	2,370
928-AFUDC Debt Reg	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
937-San Juan AR - Other	0			0	0	0	0	0	0	-25,848	-25,337	0	-51,185
961-Luna A&G PNMR D&V	0			0	0	0	0	0	0	0	0	0	0
Cost Sum	0			0	0	0	0	0	0	25,907	25,511	0	51,418
825-Clearings	0			0	0	0	0	0	0	0	-51,418	0	-51,418
Clr Sum	0			0	0	0	0	0	0	0	-51,418	0	-51,418
Proj Net	0			0	0	0	0	0	0	25,907	-25,907	0	0

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Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 02

Project	77930715	Year	2016												
	Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
	374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	426-Capitalized Interest	233	0	0	0	0	0	0	0	0	0	0	0	0	233
	908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	2,370	0	0	0	0	0	0	0	0	0	0	0	0	2,370
	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	-51,185	0	0	0	0	0	0	0	0	0	0	0	0	-51,185
	961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost Sum	51,418	0	0	0	0	0	0	0	0	0	0	0	0	51,418
	825-Clearings	-51,418	0	0	0	0	0	0	0	0	0	0	0	0	-51,418
	Clr Sum	-51,418	0	0	0	0	0	0	0	0	0	0	0	0	-51,418
	Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Projects with clearings in 2015 and 2016, Budget data for 2015 - 2017

Cost Year 03

Project 77930715	Year	2017												
Cost_Type	BegBal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
110-Straight Time-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120-Overtime-General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350-Material Issues-Major	0	0	0	0	0	0	0	0	0	0	0	0	0	0
370-Outside Services	100,000	0	0	0	0	0	0	0	0	0	0	0	0	100,000
374-Outside Svcs Legal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
377-Outside Services-Temp Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
391-Jt Proj Bills to PNM-Non-Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-Employee Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610-Expenses - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0
805-Land and Land Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	0
807-Non Refundable Contribution	0	0	0	0	0	0	0	0	0	0	0	0	0	0
829-Construction Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
426-Capitalized Interest	233	0	0	0	0	0	0	0	0	0	0	0	0	233
908-Luna AR - Labor	0	0	0	0	0	0	0	0	0	0	0	0	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	2,370	0	0	0	0	0	0	0	0	0	0	0	0	2,370
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	-51,185	0	0	0	0	0	0	0	0	0	0	0	0	-51,185
961-Luna A&G PNMR D&V	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Sum	51,418	0	0	0	0	0	0	0	0	0	0	0	0	51,418
825-Clearings	-51,418	0	0	0	0	0	0	0	0	0	0	0	0	-51,418
Clr Sum	-51,418	0	0	0	0	0	0	0	0	0	0	0	0	-51,418
Proj Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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San Juan Urea Work Paper

# PNM Exhibit CM0-5

Is contained in the following 2 pages.

**PNM Exhibit CMO-5 San Juan Urea Work Paper**

Please refer to the testimony of Chris Olson for more discussion on the San Juan Dry Urea Expenses.

FERC: 502

Cost Type: Consumables-Non Loading

Line No.	Description	Calendar 2016	Comments
1	Capacity Factor		
2	Unit 1	83.00%	Planned capacity factors for Unit 1 in 2016
3	Unit 4	85.00%	Planned capacity factors for Unit 4 in 2016
4			
5			
6	Urea Tons per Hour - 100% capacity factor		Urea usage based on performance guarantees provided by the EPC contractor
7	Unit 1	0.4755	Unit 1 will consume 951 lbs. (0.4755 tons) per hour at 100% capacity factor
8	Unit 4	0.8085	Unit 4 will consume 1617 lbs. (0.8085 tons) per hour at 100% capacity factor
9			
10	Tons per year of urea @ capacity factor		
11	Unit 1	3,457	Line 2 * Line 7 * 8760 (8760 hours in a year)
12	Unit 4	6,020	Line 3 * Line 8 * 8760 (8760 hours in a year)
13	Total	9,477	Line 11 + Line 12
14			
15	PNM Share - Annual Tons of Urea		
16	Unit 1	1,729	Line 11 * 0.50 (PNM's ownership Share for Unit 1 is 50%)
17	Unit 4	2,315	Line 12 * 0.38457 (PNM's ownership Share for Unit 4 is 38.457%)
18			
19	PNM Share - 8 months - Tons of Urea		
20	Unit 1	1,152	Line 16 * 8/12 (Unit 1 and Unit 4 SNCR's are planned to be in production for 8 months of Test Period)
21	Unit 4	1,543	Line 17 * 8/12 (Unit 1 and Unit 4 SNCR's are planned to be in production for 8 months of Test Period)
22	Total	2,696	Line 20 + Line 21
23			
24	Estimated Cost of Urea per ton	\$ 750	Cost of urea based upon quotes from suppliers
25			

**PNM Exhibit CMO-5 San Juan Urea Work Paper**

Please refer to the testimony of Chris Olson for more discussion on the San Juan Dry Urea Expenses.

FERC: 502

Cost Type: Consumables-Non Loading

Line No.	Description	Calendar 2016	Comments
26	Annual Cost (TPY at Capacity Factor) - 100% San Juan		
27	Unit 1	2,592,949	Line 11 * Line 24 (Tons per year of urea @ capacity factor * Estimated Cost of Urea per ton)
28	Unit 4	4,515,068	Line 12 * Line 24 (Tons per year of urea @ capacity factor * Estimated Cost of Urea per ton)
29	Total	7,108,017	Line 27 + Line 28
30			
31	PNM Share - Annual Cost		
32	Unit 1	1,296,475	Line 27 * 0.50 (PNM's ownership Share for Unit 1 is 50%)
33	Unit 4	1,736,360	Line 28 * 0.38457 (PNM's ownership Share for Unit 4 is 38.457%)
34	Total	3,032,834	Line 32 + Line 33
35			
36	PNM Share - 8 Months		
37	Unit 1	864,316	Line 32 * 8/12 (Unit 1 and Unit 4 SNCR's are planned to be in production for 8 months of Test Period)
38	Unit 4	1,157,573	Line 33 * 8/12 (Unit 1 and Unit 4 SNCR's are planned to be in production for 8 months of Test Period)
39	Total	2,021,890	Line 37 + Line 38

La Luz Non-Labor O&M Work Paper

# PNM Exhibit CMO-6

Is contained in the following 1 page.

**PNM Exhibit CMO - 6**  
**La Luz Non-Labor O&M Costs**

Line No.		Lordsburg Two Unit Base Period Expenses	1 Unit Operation Representation	La Luz Capacity Factor Adjustment from	La Luz Escalated 1.5% for Test Period	PNM FERC	PNM Cost Type	Comments
1	<b>Maintenance</b>							
2	Combustion Turbine	149,724	74,862	50%	113,977	553000	359	Base Period expenses reduced 50% due to going from 2 to 1 turbines, then expenses increased 50% due to capacity factor going from 3.6% to 10%. Finally, apply standard 1.5% adjustment
3	Balance of Plant (Fixed Expenses)	49,473	49,473	N/A	50,215	552000	359	Balance of Plant expenses which are independent on the number of turbines or capacity factor, therefore only apply the standard 1.5% adjustment
4	Balance of Plant (Variable Expenses)	164,843	123,632	50%	188,230	552000	370	Balance of Plant expenses correlated to the number of turbines and reduced by 25%, then expenses increased by 50% due to capacity factor increase. Finally, apply standard 1.5% adjustment
5				<b>Sub Total =</b>	<b>352,423</b>			
6								
7				<b>Incremental cost items not included at Lordsburg plant</b>				
8								
9	<b>SCR Emissions Equipment &amp; Consumables<sup>1</sup></b>							
10	Ammonia		21,247	N/A	21,566	553000	359	See calculations below
11	Emissions catalyst maintenance		30,000	N/A	30,450	553000	359	Expenses from similar PNM gas plants
12			sub total =		52,016			
13	<b>Inlet Air Cooling System</b>							
14	Demineralized water treatment lease <sup>1</sup>		48,000	N/A	48,720	552000	359	Expenses from qualified vendor quote
15	Turbine inlet cooling maintenance <sup>1</sup>		32,064	N/A	32,545	553000	359	Expenses from similar benchmarked non-PNM gas plant
16	Forklift Lease		12,000	N/A	12,180	552000	370	Expenses from PNM Sourcing
17	Vehicle Lease		9,600	N/A	9,744	552000	370	Expenses from PNM Sourcing
18			sub total =		103,189			
19								
20	<b>GE Performance Monitoring Service</b>		85,000	sub total =	86,275	553000	370	Expenses from GE quote
21								
22	<b>Location Specific Facilities Costs</b>							
23	Portable toilet facilities		3,600	N/A	3,654	552000	370	Expenses from qualified vendor quote
24	Fire system maintenance		8,390	N/A	8,516	552000	370	Expenses from Rio Bravo
25	Permitting Fees		9,000	N/A	9,135	553000	370	Expenses from PNM Environmental for NMED permits
26			sub total =		21,305			
27								
28			<b>Grand Total La Luz Future Test Period Forecast =</b>		<b>615,208</b>	PNM Exhibit HEM-4, WP OM-4, Column T		

1. Based on a 10% capacity factor

Ammonia calculations	
8760 hours per year	
10% capacity factor = 876 hours of operation	
Ammonia consumption is 150 lb/hr: =	131,400 lbs/yr
Ammonia price is \$.1617/lb =	\$21,247 \$/yr

La Luz Labor O&M Work Paper

# PNM Exhibit CMO-7

Is contained in the following 1 page.

PNM Exhibit CMO - 7  
Labor to Support La Luz Gas Plant

Line No.	Description	Classification	Base Period Hourly Labor Rate	Remote Pay Collective Bargaining Requirement	Effective Hourly Labor Rate	Base Period Annual Costs (Hourly Rate x 2080 hours)	Escalation for April 2015	Escalated Annual Costs at Start of Test Period	Jan. - March of Test Period Labor Costs	Escalation for April 2016	Escalated Annual Costs in April of Test Period	April - Sept. of Test Period Labor Costs	Total Test Period Costs (Jan. - Sept.)
1	Senior Working Foreman (SWF)	Union	\$48.26	5%	\$50.67	\$105,394	2%	\$107,501	\$35,834	2%	\$109,652	\$54,826	\$90,660
2	SWF Overtime at 15%	Union			\$76.01	\$23,715	2%	\$24,189	\$8,063	2%	\$24,673	\$12,337	\$20,400
3	Senior Engineer	Non-Union	\$50.67		\$50.67	\$105,394	2.50%	\$108,028	\$36,009	2.50%	\$110,729	\$55,365	\$91,374
4													
5												La Luz Labor	\$182,034
6												La Luz Overtime	\$20,400
7												Total	\$202,433



Solar 40 MW Solar Project O&M Work Paper

# PNM Exhibit CMO-8

Is contained in the following 1 page.

**PNM Exhibit CMO - 8**  
**40 MW Solar Incremental Non-Labor O&M Costs**

Item	Base Period	Comments
2014 Actual Non-Labor O&M Costs	\$582,401	Incremental Actuals Cost 2014 (April - Dec)
Total Annualized Non-Labor O&M Costs	\$776,535	Annualize \$582,401 by multiplying by (12/9)
MW's in Service	43.5	Solar MW in service at end of base period
Non-Labor O&M Cost per MW	\$17,851	Divide \$776,535 by 43.5 MW
Item	Test Period	Comments
Incremental Escalated O&M Cost per MW	\$268	Multiply \$17,851 by 1.5% escalator
Test Period O&M Cost per MW	\$18,119	Add \$268 to \$17,851
Incremental MW's	40	Solar MW coming into service during test period
Total 40 MW Incremental, Non-Labor O&M Costs	\$724,766	Multiply \$18,119 by 40 MW's

**BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION**

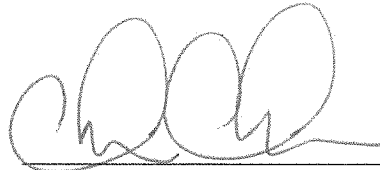
IN THE MATTER OF THE APPLICATION OF )  
OF PUBLIC SERVICE COMPANY OF NEW )  
MEXICO FOR REVISION OF ITS RETAIL ) Case No. 15-00261-UT  
ELECTRIC RATES PURSUANT TO ADVICE )  
NOTICE NO. 513, )  
 )  
PUBLIC SERVICE COMPANY OF NEW MEXICO, )  
Applicant. )  
\_\_\_\_\_ )

**AFFIDAVIT**

STATE OF NEW MEXICO )  
 ) ss  
COUNTY OF BERNALILLO )

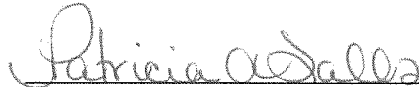
**CHRIS M. OLSON, Vice President, Generation for Public Service Company**  
**of New Mexico**, upon being duly sworn according to law, under oath, deposes and states:  
I have read the foregoing **Direct Testimony and Exhibits of Chris M. Olson** and it is  
true and accurate based on my own personal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

SIGNED this 21<sup>st</sup> day of August, 2015.



CHRIS M. OLSON

SUBSCRIBED AND SWORN to before me this 21<sup>st</sup> day of August, 2015.



NOTARY PUBLIC IN AND FOR  
THE STATE OF NEW MEXICO

My Commission Expires:



September 14, 2018