



LOS ALAMOS

County of Los Alamos

1000 Central Avenue
Los Alamos, NM 87544

Agenda - Final Board of Public Utilities

Wednesday, February 21, 2018

5:30 PM

1000 Central Avenue
Council Chambers

REGULAR SESSION

Complete Board of Public Utilities agenda packets, past agendas, videos, legislation and minutes can be found online at <http://losalamos.legistar.com/Calenar.aspx>. Learn more about the Board of Public Utilities at <http://www.losalamosnm.us/gov/bcc/utilitiesboard>.

PUBLIC COMMENTS:

Please submit written comments to the Board at bpu@lacnm.us. Oral public comment is accepted during the two periods identified on the agenda and after initial board discussion on a business item, prior to accepting a main motion on an item. Oral comments should be limited to four minutes per person. Requests to make comments exceeding four minutes should be submitted to the Board in writing prior to the meeting. Individuals representing or making a combined statement for a large group may be allowed additional time at the discretion of the Board. Those making comments are encouraged to submit them in writing either during or after the meeting to be included in the minutes as attachments. Otherwise, oral public comments will be summarized in the minutes to give a brief succinct account of the overall substance of the person's comments.

1. CALL TO ORDER

2. PUBLIC COMMENT

This section of the agenda is reserved for comments from the public on Consent Agenda items or items that are not otherwise included in this agenda.

3. APPROVAL OF AGENDA

4. BOARD BUSINESS

4.A. Chair's Report

4.A.1 [10372-18](#) Reminder for Upcoming Boards & Commissions Luncheon

Presenters: Board of Public Utilities

PG. 1

4.B. Board Member Reports

4.C. Utilities Manager's Report**4.D. County Manager's Report****4.E. Council Liaison's Report****4.F. Environmental Sustainability Board Liaison's Report****4.G. General Board Business****4.G.1 [10315-18](#) Review of Department of Public Utilities Quarterly Report**

Presenters: Tim Glasco, Utilities Manager

PG. 2

4.H. Approval of Board Expenses**4.I. Preview of Upcoming Agenda Items****4.I.1 [10435-18](#) Tickler File for the Next 3 Months**

Presenters: Board of Public Utilities

PG. 3-5

5. PUBLIC HEARING(S)

There are no public hearings scheduled for this meeting.

6. CONSENT AGENDA

The following items are presented for Board approval under a single motion unless any item is withdrawn by a member for further Board consideration in the "Business" section of the agenda.

CONSENT MOTION -

I move that the Board of Public Utilities approve the items on the Consent Agenda as presented and that the motions in the staff reports be included in the minutes for the record.

OR

I move that the Board of Public Utilities approve the items on the Consent Agenda as amended and that the motions contained in the staff reports, be included in the minutes for the record.

6.A [10433-18](#) Approval of Board of Public Utilities Meeting Minutes

Presenters: Board of Public Utilities

PG. 6-18

6.B [10340-18](#) Approval of the Transfer of Profit from Electric and Gas Funds to the General Fund for Operations During Fiscal Year 2017.

Presenters: Bob Westervelt, Deputy Utilities Manager - Finance/Admin

PG. 19-24

6.C [10393-18](#) Award of Bid No. IFB18-22 for the Purpose of Otowi Well #2 Transmission Line Improvements with General Hydronics Utilities, Inc. in the Amount of \$181,775.88, plus Applicable Gross Receipts Tax

Presenters: James Alarid, Deputy Utilities Manager - Engineering

PG. 25

6.D [10299-18](#) Approval to Establish San Juan Generating Station Decommissioning Agreement Trust Fund

Presenters: Bob Westervelt, Deputy Utilities Manager - Finance/Admin

PG. 26-43

7. BUSINESS**7.A** [10402-18](#) Board of Public Utilities Discussion on the Carbon Free Power Project

Presenters: Steve Cummins, Deputy Utilities Manager - Power Supply

PG. 44-45

7.B [10339-18](#) Discussion About Advanced Metering Infrastructure (AMI)

Presenters: Bob Westervelt, Deputy Utilities Manager - Finance/Admin

PG. 46-56

7.C [10314-18](#) Department of Public Utilities FY2019 & FY2020 Budget Presentation

Presenters: Bob Westervelt, Deputy Utilities Manager - Finance/Admin

PG. 57-165

8. STATUS REPORTS**8.A [10434-18](#) Status Reports**

Presenters: Board of Public Utilities

PG. 166-180

9. PUBLIC COMMENT

This section of the agenda is reserved for comments from the public on any items.

10. ADJOURNMENT

If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing or meeting, please contact the County Human Resources Division at 662-8040 at least one week prior to the meeting or as soon as possible. Public documents, including the agenda and minutes can be provided in various accessible formats. Please contact the personnel in the Department of Public Utilities (505) 662-8132 if a summary or other type of accessible format is needed.



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 4.A.1
Index (Council Goals): BCC - N/A
Presenters: Board of Public Utilities
Legislative File: 10372-18

Title

Reminder for Upcoming Boards & Commissions Luncheon

Body

The month prior to a Boards & Commissions luncheon, the attendee schedule will be included in the agenda packet as a reminder during the Chair's report.

For the luncheon, the member should prepare a brief report that outlines recent important activities of the Board and highlights upcoming events. The report will be included in the luncheon minutes.

11:30 a.m. - 1:00 p.m. - Council Chambers

2018 Schedule

January 18 - Steve McLin
March 15 - Paul Frederickson
May 17 - Jeff Johnson
September 20 - Carrie Walker
November 15 - Kathy Taylor
January 17, 2019 - New member



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 4.G.1
Index (Council Goals): BCC - N/A
Presenters: Tim Glasco, Utilities Manager
Legislative File: 10315-18

Title

Review of Department of Public Utilities Quarterly Report

Recommended Action

None

Staff Recommendation

None

Body

The Board requested that the quarterly report be presented each quarter, with salient features explained.

Alternatives

Information only, no alternatives presented.

Fiscal and Staff Impact

No Staff or Fiscal impact.

Attachments

*At the time of agenda publication, the report was not yet ready to be included in the packet.
Hard-copies will be provided to the Board at the meeting.*



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 4.I.1
Index (Council Goals): BCC - N/A
Presenters: Board of Public Utilities
Legislative File: 10435-18

Title

Tickler File for the Next 3 Months

Attachments

A - Tickler File for the Next 3 Months



LOS ALAMOS

County of Los Alamos

Los Alamos, NM 87544
www.losalamosnm.us

Tickler

**Criteria: Agenda Begin Date: 3/1/2018, Agenda End Date: 5/31/2018, Matter Bodies:
Board of Public Utiliti**

File Number	Title
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Agenda Date: 03/06/2018

10436-18	Briefing/Report (Dept, BCC) - No action requested (FOR BPU TICKLER) Joint Board of Public Utilities & Council Meeting - Utilities Staff Will Share Feedback from the Carbon Free Power Project Online Open Forum Department Name: DPU Drop Dead Date:	Special Joint Meeting Length of Presentation: Apx. 60 Min. Sponsors: Steve Cummins, Deputy Utilities Manager - Power Supply
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Agenda Date: 03/21/2018

10318-18	Report Quarterly Conservation Program Update Department Name: DPU Drop Dead Date:	04G General Board Business Length of Presentation: Apx. 5 Min. Sponsors: James Alarid, Deputy Utilities Manager - Engineering
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AGR0548-18	General Services Agreement Approval of Services Agreement No. AGR__-____ with [vendor] in the amount of \$[amount], plus Applicable Gross Receipts Tax, for the Purpose of White Rock Substation 15KV Retrofit & Upgrade Project Department Name: DPU Drop Dead Date:	06 Consent Length of Presentation: N/A Sponsors: Rafael De LaTorre, Deputy Utilities Manager - Electric Distribution
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10342-18	Briefing/Report (Dept,BCC) - Action Requested Approval of Revision to Modification 20 to the Electric Energy and Power Coordination Agreement (ECA) Between the Incorporated County of Los Alamos and the United States Department of Energy (DOE). Department Name: DPU Drop Dead Date:	06 Consent Length of Presentation: N/A Sponsors: Bob Westervelt, Deputy Utilities Manager - Finance/Admin
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10317-18	Budget Item Approval of Department of Public Utilities FY2019 & FY2020 Budget Department Name: DPU Drop Dead Date:	07 Business Length of Presentation: Apx. 60 Min. Sponsors: Bob Westervelt, Deputy Utilities Manager - Finance/Admin
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8703-16	Briefing/Report (Dept,BCC) - Action Requested	07 Business
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File Number	Title	
	Carbon Free Power Project Licensing Period Phase 1 Participation	
	Department Name: DPU	Length of Presentation: Apx. 60 Min.
	Drop Dead Date:	Sponsors: Steve Cummins, Deputy Utilities Manager - Power Supply
10316-18	Briefing/Report (Dept, BCC) - No action requested	07 Business
	(TENTATIVE) FER Implementation - Discussion Regarding Rate Ordinance - Unbundled Rate Structure	
	Department Name: DPU	Length of Presentation: Apx. 30 Min.
	Drop Dead Date:	Sponsors: Bob Westervelt, Deputy Utilities Manager - Finance/Admin
Agenda Date: 04/18/2018		
10373-18	Calendar	04A Chair's Report
	Reminder for Upcoming Boards & Commissions Luncheon	
	Department Name: DPU	Length of Presentation: Apx. 5 Min.
	Drop Dead Date:	Sponsors: Board of Public Utilities
10416-18	Briefing/Report (Dept, BCC) - No action requested	04G General Board Business
	Quarterly Update on Utility System - (System TBD)	
	Department Name: DPU	Length of Presentation: Apx. 20 Min.
	Drop Dead Date:	Sponsors: Tim Glasco, Utilities Manager
10302-18	Briefing/Report (Dept, BCC) - No action requested	04G General Board Business
	Briefing from County Manager on the County Strategic Objectives	
	Department Name: DPU	Length of Presentation:
	Drop Dead Date:	Sponsors: Harry Burgess, County Manager
CO0528-18	Code Ordinance	05 Public Hearings
	(TENTATIVE) FER Implementation - Public Hearing for Rate Ordinance - Unbundled Rate Structure	
	Department Name: DPU	Length of Presentation: Apx. 30 Min.
	Drop Dead Date:	Sponsors: Bob Westervelt, Deputy Utilities Manager - Finance/Admin



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 6.A
Index (Council Goals): BCC - N/A
Presenters: Board of Public Utilities
Legislative File: 10433-18

Title

Approval of Board of Public Utilities Meeting Minutes

Recommended Action

I move that the Board of Public Utilities approve the meeting minutes of January 17th, 2018 as presented.

Body

REQUESTED REVISIONS TO THE DRAFT MINUTES

Draft minutes are sent to members after each meeting for their review. Members may then send changes to be incorporated prior to final approval of the minutes at the next regular meeting.

The following changes were incorporated into the minutes presented for approval:

1. Kathleen Taylor - In #3 of the attached Utilities Manager's report, the typo "USAMPS" was corrected to "UAMPS."

Attachments

A - Draft BPU Regular Session Minutes - January 17th, 2018



LOS ALAMOS

County of Los Alamos
Minutes
Board of Public Utilities

1000 Central Avenue
Los Alamos, NM 87544

*Jeff Johnson, Chair; Stephen McLin, Vice-chair; Paul Frederickson, Kathleen Taylor and
Carrie Walker, Members
Tim Glasco, Ex Officio Member
Harry Burgess, Ex Officio Member
Christine Chandler, Council Liaison*

Wednesday, January 17, 2018

5:30 PM

1000 Central Avenue
Council Chambers

REGULAR SESSION

1. CALL TO ORDER

The regular meeting of the Incorporated County of Los Alamos Board of Public Utilities was held on Wednesday, January 17, 2018 at 1000 Central Ave., Council Chambers. Board Chair, Jeff Johnson, called the meeting to order at 5:30 p.m.

Present 5 - Board Member Johnson, Board Member McLin, Board Member Frederickson, Board Member Taylor and Board Member Glasco

Absent 1 - Board Member Burgess

Remote 1 - Board Member Walker

Ms. Walker joined the meeting via teleconference at approximately 5:36 p.m.

2. PUBLIC COMMENT

Mr. Johnson noted that item 8.A to consider an agreement for Advanced Metering Infrastructure (AMI) equipment and services would be removed because staff was still reviewing the agreement with the vendor. During a future meeting, staff will present information about the AMI project and there will be opportunity for public comment. Mr. Johnson opened the floor for public comment on items 8.A, items on the Consent Agenda and for those topics not otherwise included on the agenda. There were no comments.

3. APPROVAL OF AGENDA

Mr. McLin moved to approve the agenda as modified. The motion passed by the following vote:

Yes: 4 - Board Member Johnson, Board Member McLin, Board Member Frederickson and Board Member Taylor

Absent: 1 - Board Member Walker

4. BUSINESS ITEM

4.A. 10305-18 Future Energy Resources Implementation Plan Update

Presenters: Steve Cummins

Deputy Utility Manager of Power Supply Mr. Steve Cummins presented this item. The following is the substance of the item being considered.

At the request of the Board, staff presented status updates on three recommendations from the Strategic Policy for Electrical Energy Resources and the Distributed Energy Resources and Rate Structures documents, addressing the feasibility of a community solar garden, dispatchable loads, energy storage and generation assets.

The Board discussed this item and requested clarification where necessary.

Mr. Johnson opened the floor for public comments. Members of the public gave the following summarized comments:

1) Mr. Ed Birnbaum, 926 Circle Drive - Mr. Birnbaum noted that Taos has many parking lot solar gardens; therefore, Kit Carson Electric must feel this is a viable option. He does not understand how the Electric Coordination Agreement with Los Alamos National Lab (LANL) would affect the County's ability to implement a community solar garden or how LANL would participate.

5. BOARD BUSINESS

5.A. Chair's Report

Mr. Johnson reported on the following items:

1) There will be a joint Board and Council meeting on January 25th to discuss the Carbon Free Power Project. The public meeting portion will begin at 6:00 p.m.

5.B. Board Member Reports

Board members had nothing to report.

5.C. Utilities Manager's Report

Mr. Glasco provided a written report, which is included in the minutes as an attachment.

5.D. County Manager's Report

Mr. Burgess was not in attendance. No report was given.

5.E. Council Liaison's Report

Ms. Christine Chandler reported on the following items:

1) Ms. Chandler requested clarification on what the Board would like to hear about during her reports. Mr. Johnson explained that generally, the Board would like to know about issues Council is wrestling with, especially as it pertains to utilities issues. There has been a lot of discussion about communication between the Board and Council. If there are areas where there is a communication shortfall, the Board would be interested in hearing about that.

2) The Board/Council subcommittee has had several meetings and some of those communication issues are beginning to be aired. The first few meetings were more focused on the transfer of gas reserves to the wastewater fund to assist in the

construction of the White Rock Waste Water Treatment Plant and allow the County to retire some debt to be able to proceed more quickly. Ms. Chandler will try to remember to bring issues discussed at these meetings to the Board. Board Member McLin is also on that subcommittee. They've been having some good discussion on other issues the subcommittee will start looking at, including ambiguities in some of the utilities ordinances. At the last joint Board/Council meeting they discussed the gas sunset clause and perhaps having a sunset clause to review rates on a periodic basis so that an update can be brought to Council regularly to determine whether they are still appropriate.

3) With regards to rooftop solar, Ms. Chandler pointed out as an option the Pajarito Cliffs buildings, which are very large.

4) Ms. Chandler recalled that about a year-and-a-half ago, the Board developed some procedures or protocols relating to the Council Liaison. Ms. Chandler requested a copy of this so that she could have a better understanding of her role. A copy of the Board's Policies and Procedures Manual will be sent to her.

5.F. Environmental Sustainability Board Liaison's Report

Ms. Susan Barns was not in attendance, but the written report she provided to the Board is included in the minutes as an attachment.

5.G. General Board Business

5.G.1 [10304-18](#) Complete 2017 Board of Public Utilities Annual Self-evaluation

Presenters: Jeff Johnson

Board Chair Mr. Jeff Johnson presented this item. The following is the substance of the item being considered.

On January 16th, the Board completed its annual self-evaluation at a special meeting. This agenda item was a placeholder if the Board wished to continue discussion or take any action as a follow-up to the special meeting. Action items from the self-evaluation were recorded in the minutes of that meeting. Mr. Johnson briefly recapped those action items. No additional action was taken by the Board at the January 17th meeting.

5.G.2 [10309-18](#) Approval of Board of Public Utilities Meeting Calendar for 2018

Presenters: Jeff Johnson

In accordance with Incorporated County of Los Alamos Resolution No. 18-01 regarding Open Meetings, notice of regular meetings of all county boards, commissions and policymaking bodies shall be given ten days in advance of the meeting date. Each County board, commission and policymaking body may adopt a schedule of its regular meetings for the present calendar year or the balance thereof.

Ms. Taylor moved the Board of Public Utilities approve the proposed Board meeting calendar for 2018. The motion passed by the following vote:

Yes: 5 - Board Member Johnson, Board Member McLin, Board Member Frederickson, Board Member Taylor and Board Member Walker

5.G.3 [10310-18](#) Approval of Meeting Agenda Outline for 2018

Presenters: Jeff Johnson

Section 3.3 of the Board of Public Utilities Policies and Procedures Manual outlines an annual calendar of BPU activities. Annually at the January meeting, the Board is to review and approve the standard meeting agenda outline in section 3.4 of the PPM.

Mr. McLin moved that the Board of Public Utilities approve the meeting agenda outline for 2018 as presented. The motion passed by the following vote:

Yes: 5 - Board Member Johnson, Board Member McLin, Board Member Frederickson, Board Member Taylor and Board Member Walker

5.G.4 [10311-18](#)

Schedule and Selection of Members to Attend Boards & Commissions Luncheons for 2018

Presenters: Jeff Johnson

Regular County Boards & Commissions luncheons are scheduled to give these groups an opportunity to work with one another and with Council representatives. Only one representative from each board or commission is asked to attend.

Board members volunteered for the following dates:

Thursday, January 18 - Mr. McLin
Thursday, March 15 - Mr. Frederickson
Thursday, May 17 - Mr. Johnson
Thursday, September 20 - Ms. Walker
Thursday, November 15 - Ms. Taylor

At the meeting a month prior to these luncheons, staff will include a reminder in the Chair's report portion of the agenda.

5.G.5 [10312-18](#)

Appointment of Board Member to Audit Committee for 2018

Presenters: Jeff Johnson

Ms. Taylor was appointed to serve on the Audit Committee for 2018.

5.G.6 [10313-18](#)

Affirmation of the Incorporated County of Los Alamos Open Meetings Resolution No. 18-01

Presenters: Jeff Johnson

At the first County Council meeting of a new calendar year, Council passes an Open Meetings resolution that establishes minimum standards of reasonable notice to the public for all meetings of County boards, commissions and policy making bodies. After the resolution is passed, the Board of Public Utilities reviews the resolution at the next regularly scheduled meeting and affirms the standards, as per Section 2.12.C of the Board's Policies and Procedures Manual.

Ms. Taylor moved that the Board of Public Utilities affirm Incorporated County of Los Alamos Resolution No. 17-21; A Resolution Establishing Minimum Standards of Reasonable Notice to the Public for All Meetings of the Council, the County Indigent Hospital and County Health Care Board and of All County Boards, Commissions and Policymaking Bodies. The motion passed by the following vote:

Yes: 5 - Board Member Johnson, Board Member McLin, Board Member Frederickson, Board Member Taylor and Board Member Walker

5.G.7 [10308-18](#)

Election of Board of Public Utilities Chair and Vice-chair for 2018

Presenters: Jeff Johnson

The Board of Public Utilities shall annually elect its chair and such officers as it desires from among its members. The election shall occur at a regular meeting in January of each year. (LAC Ordinance Sec. 40-41. Board of public utilities - Organization.)

ELECTION OF BOARD CHAIR:

Member Taylor nominated Member Johnson

After a roll call vote, Member Johnson was appointed Board Chair.

Member Johnson: 5 - Member Frederickson, Member Johnson, Member McLin, Member Taylor, Member Walker

ELECTION OF BOARD VICE-CHAIR

Member Taylor nominated Member Walker

After a roll call vote, Member Walker was appointed Board Vice-chair.

Member Walker: 5 - Member Frederickson, Member Johnson, Member McLin, Member Taylor, Member Walker

Mr. Johnson will return at a future meeting with an agenda item to discuss possible changes to the election process.

5.G.8 [10303-18](#)

Quarterly Update on Utility System - Water System

Presenters: Jack Richardson

Deputy Utility Manager of Gas, Water & Sewer Mr. Jack Richardson presented this item. The following is the substance of the item being considered.

The Board has requested a quarterly system assessment on a different utility each quarter. This quarter, Mr. Richardson presented an update on the water system.

The Board discussed this item and requested clarification where necessary.

5.H. Approval of Board Expenses

Mr. McLin moved that the Board of Public Utilities approve the expense for Board members to register for any of the American Public Power Association webinars or complete their certificate programs. The motion passed by the following vote:

Yes: 5 - Board Member Johnson, Board Member McLin, Board Member Frederickson, Board Member Taylor and Board Member Walker

5.I. Preview of Upcoming Agenda Items

5.I.1. [10298-18](#) Tickler File for the Next 3 Months

Presenters: Board of Public Utilities

In addition to the items already listed in the tickler provided in the agenda packet, the following items were identified for the tickler for upcoming meetings:

- 1) TBD - Consideration of a Revised Procedure for Annually Electing a Chair and Vice-chair (Jeff Johnson)
- 2) TBD - Possible Updates to the Board's Policies and Procedures Manual in Response to Action Items from the Board's 2017 Self-evaluation (Jeff Johnson)
- 3) 02/21/2018 - Discussion about Advanced Metering Infrastructure (Bob Westervelt)
- 4) 02/21/2018 - Amendment to the Electric Coordination Agreement Modification 20 (Bob Westervelt)
- 5) 02/21/2018 - Profit Transfer from Electric and Gas Funds to the General Fund for Operations During Fiscal Year 2017 (Bob Westervelt)

6. PUBLIC HEARING(S)

There were no public hearings scheduled for this meeting.

7. CONSENT AGENDA

Mr. McLin moved that the Board of Public Utilities approve the items on the Consent Agenda as presented and that the motions contained in the staff reports be included in the minutes for the record. The motion passed by the following vote:

Yes: 5 - Board Member Johnson, Board Member McLin, Board Member Frederickson, Board Member Taylor and Board Member Walker

7.A [10297-18](#) Approval of Board of Public Utilities Meeting Minutes

Presenters: Board of Public Utilities

I move that the Board of Public Utilities approve the meeting minutes of December 11th, 2017 as presented.

- 7.B [AGR0546-18](#) Approval of Services Agreement No. AGR18-17 with HPI, LLC in the amount of \$312,195.00, plus Applicable Gross Receipts Tax, for the Purpose of Abiquiu Hydroelectric Plant Controls Upgrade

Presenters: James Alarid

I move that the Board of Public Utilities approve Services Agreement No. AGR 18-17 with HPI. LLC in the amount of \$312,195.00 and a contingency in the amount of \$62,000.00, for a total of \$374,195.00, plus applicable gross receipts tax, for the Purpose of the Abiquiu Hydroelectric Plant Controls Upgrade Project, and forward to Council for approval.

- 7.C [AGR0547-18](#) Approval of Services Agreement No. AGR18-20 with Intellibind Technologies, LLC in the amount of \$500,000.00, plus Applicable Gross Receipts Tax, for the Purpose of Electric SCADA Comprehensive Patch Management Services

Presenters: James Alarid

I move that the Board of Public Utilities approve Services Agreement No. AGR18-20 with Intellibind Technologies, LLC in the amount of \$500,000.00, plus applicable gross receipts tax, for the purpose of Electric SCADA Comprehensive Patch Management Services, in a form acceptable to the county attorney, and forward to Council for approval.

8. BUSINESS

- 8.A [AGR0545-18](#) Approval of Services Agreement No. AGR17-32 with Anixter Incorporated in the amount of \$4,974,717.00, plus Applicable Gross Receipts Tax, for the Purpose of Advanced Metering Infrastructure (AMI) Equipment and Services

Presenters: Bob Westervelt

This item was pulled from the agenda.

- 8.B [10307-18](#) Approval of the Long Range Water Supply Plan

Presenters: James Alarid

Deputy Utility Manager of Engineering Mr. James Alarid presented this item. The following is the substance of the item being considered.

DPU contracted with Daniel B. Stephens & Associates, Inc. (DBS&A) to revise the Long-range Water Supply Plan. Using the original format and data from the Council-adopted 2006 plan as a starting point, DBS&A updated the Plan to: reflect current population and water demand projections; evaluate potential climate change impacts; and assess various water supply options, including the timing for development of the County's San Juan-Chama water rights. The revised plan was presented in a series of meetings with the public, Board of Public Utilities and Council in 2017. The current version of the plan incorporates input received from public comment, Council recommendations and inclusion of 2015 and 2016 water use data. This plan revision was presented to the community in a public meeting held on November 13, 2017. No public input was received during the public meeting.

The Board discussed this item and requested clarification where necessary.

Mr. McLin moved that the Board of Public Utilities approve the revised Long Range Water Supply Plan and forward to Council for approval. The motion passed by the following vote:

Yes: 5 - Board Member Johnson, Board Member McLin, Board Member Frederickson, Board Member Taylor and Board Member Walker

8.C [10306-18](#)

Transfer of Funds from the Gas Fund to the Wastewater Fund

Presenters: Tim Glasco

Utilities Manager Mr. Timothy Glasco presented this item. The following is the substance of the item being considered.

The Department of Public Utilities faces the cost of replacement of the White Rock Wastewater Treatment Plant while still paying debt service on construction of the Los Alamos Wastewater Treatment Plant. In order to be able to pay the debt of both plants, estimated at approximately \$2.1 million per year, sewer rates for customers would have to be increased significantly, or alternatively, construction of the White Rock plant delayed until 2029 when the LA Plant debt is retired. In previous BPU meetings, numerous scenarios of debt restructuring, alternative financing, and delay of construction have been examined. The final recommendation of the Board was to pursue immediate construction of the White Rock plant, refinance existing debt, phase in a series of small rate increases and transfer excess funds from the gas fund to the wastewater fund in order to pay down the debt. Staff have evaluated the existing status of the gas reserves, requirements to comply with the financial reserves policy, future capital and operational needs, and the long-range forecast of gas demand and have determined that \$2.5 million dollars could be transferred to the wastewater fund without compromising the gas fund.

The Board discussed this item and requested clarification where necessary.

Ms. Taylor moved the Board of Public Utilities approve transfer of \$2.5 million from the gas fund to the wastewater fund. I further move the Board of Public Utilities approve Budget Revision 2018-10 for the fund transfer and for expenditure of \$2.5 million from the wastewater fund for the purpose of advance payment on the Los Alamos Wastewater Treatment plant construction debt and forward to the County Council for their approval. The motion passed by the following vote:

Yes: 4 - Board Member McLin, Board Member Frederickson, Board Member Taylor and Board Member Walker

No: 1 - Board Member Johnson

9. STATUS REPORTS

9.A [10296-18](#)

Status Reports

Presenters: Board of Public Utilities

The following informational status reports were provided to the Board in the agenda packet:

- 1) Electric Reliability Update
- 2) Accounts Receivables Report
- 3) Safety Report

10. PUBLIC COMMENT

Mr. Johnson opened the floor for public comment on any items. Members of the public gave the following summarized comments:

- 1) Mr. McLin - Both Mr. McLin and Mr. Johnson expressed concern during item 8.C. that there was not enough detail in the staff report for the public or for future reference to outline the benefits of transferring funds from the gas to the waste water fund and why that was chosen as the best financial option for waste water treatment plant replacement funding. Mr. McLin asked Mr. Glasco to clarify if additional information would, in fact, be provided in the agenda documentation to Council. Mr. Glasco confirmed that he would work with staff to review and summarize the extensive amount of supporting information that had been provided in past meeting agendas and would include that in the Council agenda packet.

11. ADJOURNMENT

The meeting adjourned at 9:29 p.m.

APPROVAL

Board of Public Utilities Chair Name

Board of Public Utilities Chair Signature

Date Approved by the Board

ATTACHMENT
OFFICER REPORTS
SUBMITTED AT THE MEETING

MANAGER'S REPORT

January 17, 2018

1. AMI solicitation is in doubt at this point, as we are unable to come to agreement with selected vendor on contract terms. We will likely be contacting the second place offeror to begin contract negotiations.
2. The U. S. Bureau of Reclamation is holding an informational meeting for affected stakeholders on their plans and timing for repairs on the El Vado dam. The meeting will be held in Albuquerque on January 31.
3. The public meeting for the Carbon Free Power Project is scheduled in the Council Chambers for Thursday, January 25, 2018 at 6:00 PM, followed by a joint Council/BPU meeting to discuss the Power Sales Contract and project costs. Representatives of UAMPS will be present.
4. Drilling began on Otowi Well No. 2 this week. We are setting up a tour for BPU and County Council members tentatively the first week of February. Need a rough estimate of interest from Board members.
5. The Los Alamos Switchgear Substation equipment is nearing the end of manufacturing. A factory acceptance test will be performed on or about February 7. Rafael de la Torre will be traveling to Fontana, CA to observe the test.
6. New employee Ben Olbrich started work in the Electric Production division the last week of December. Ben is a communications expert and will be helping us on SCADA and AMI projects, as well as his regular duties related to power prescheduling and marketing.

Environmental Sustainability Board (ESB) liaison report

Susan Barns, ESB Liaison 1/17/2018

At our December, 2017 meeting, the ESB:

- Approved the updated LAC Environmental Sustainability Plan. This plan sets goals for several sustainability indicators such as greenhouse gas emissions; electricity, gas and water usage in County facilities; recycling and solid waste; and public transit ridership.
- Reviewed the ESB FY18 Work Plan.
- Discussed implementation of the new yard trimmings roll cart program, to begin this summer. An Open Forum poll will be done to assess residents' preferred schedule for yard trimmings and recycling pick-ups.
- Discussed the presentation by the Tourism Work Group to the County Council, and potential impacts of increased tourism on LAC sustainability.
- Discussed Ski Hill land transfer and water line construction.
- Discussed new housing projects at A-19, LASO site and A-9 (DP Road).
- Heard an update on Environmental Services staff collaboration with Chamisa School Green Team students on progress of "Zero Waste Lunch" video and curriculum. Video should be ready in February, and start showing at the Reel Deal theatre—watch for it!

Tomorrow night's ESB meeting includes:

- Finalization of Open Forum survey questions regarding collection schedule for the new yard trimmings roll carts
- Discussion of ESB FY19 Work Plan, to be approved at Feb. 15, 2018 meeting.



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 6.B
Index (Council Goals): BCC - N/A
Presenters: Bob Westervelt, Deputy Utilities Manager - Finance/Admin
Legislative File: 10340-18

Title

Approval of the Transfer of Profit from Electric and Gas Funds to the General Fund for Operations During Fiscal Year 2017.

Recommended Action

I move that the Board of Public Utilities approve the transfer of revenues from the electric and gas funds to the general fund for electric and gas operations during fiscal year 2017 in accordance with Incorporated County of Los Alamos Resolution 97-07 and forward to the County Council for their approval.

Staff Recommendation

The Utilities Department staff recommends approval of the fiscal year 2017 profit transfers as presented.

Body

In 1997, to establish a methodology for determining operating profits to be transferred to the County general fund, the Board of Public Utilities and the County Council agreed, through a resolution, to transfer from the electric fund and the gas fund an amount equal to 5% of retail sales to customers other than Los Alamos Public Schools and Los Alamos County. Transfer amounts are to be computed after completion of the County's annual financial audit and the transfers are to include interest from the last day of the fiscal year to the date of transfer. Accordingly the transfer for each year's activity is reflected in the following year's budget.

Profit transfers computed for fiscal year 2017 retail sales are \$574,246.02 and \$207,175.00 for the electric and gas utilities, respectively. A computation worksheet is attached. The budgeted amounts were \$651,065 for the electric fund and \$262,075 for the gas fund.

Alternatives

The transfers have been accomplished. If the Board and Council do not approve the profit transfers, the funds will revert to the Department of Public Utilities electric and gas funds.

Fiscal and Staff Impact

For FY2017 sales \$574,246.02 plus interest from the electric fund to the general fund and \$207,175.00 plus interest from the gas fund to the general fund.

Attachments

- A - Incorporated County of Los Alamos Resolution No. 97-07
- B - Utilities Profit Transfer Schedule - FY2018
- C - Ten Year History FY2008 through FY2017

INCORPORATED COUNTY OF LOS ALAMOS RESOLUTION NO. 97-07

**A RESOLUTION ESTABLISHING A METHODOLOGY FOR
COMPUTING ELECTRIC AND GAS OPERATING PROFITS
FOR TRANSFER TO THE COUNTY GENERAL FUND**

WHEREAS, the Atomic Energy Commission transferred the utilities to Los Alamos County for the purpose of aiding self-sufficiency; and

WHEREAS, this resolution supersedes Resolution No. 93-05; and

WHEREAS, the Los Alamos Board of Public Utilities and the Los Alamos County Council wish to establish a methodology for determining operating profits which are transferred to the General Fund; and

NOW, THEREFORE, BE IT RESOLVED by the Incorporated County of Los Alamos to:

1. Establish goals to
 - a) Achieve annual operating profits for transfer to the General Fund of 5% of total electric and gas utility retail revenues excluding commodity sales to the schools and County.
 - b) Adopt a delayed appropriation approach for the General Fund transfer so that:

Fiscal year 1 - budget and rates set and profit is earned,
Fiscal year 2 - audit completion, profit transfer from FY1 gas and electric retail revenue excluding commodity sales to the schools and County to the General Fund (to include interest from July 1, FY2),
Fiscal year 3 - profit available for appropriation with interest.
2. The Board of Public Utilities shall propose and the Council shall approve a budget and rates which provide for all of the following:
 - First: funds required for current operations and funds for adequate working capital.
 - Second: funds required to redeem and pay interest on any bond issue.
 - Third: an adequate reserve to finance replacements required by normal depreciation of the utility plant or equipment as provided in the Schedule of Funds.

Fourth: amounts set forth in the budget as payments to be made to the County in lieu of franchise fees and taxes that normally would be assessed against privately owned gas and electric utilities.

Fifth: adequate provision for plant additions and improvements foreseen as necessary to meet future requirements.

Sixth: adequate provision for a separate gas and electric rate reserve.

Seventh: 5% of total electric and gas utility retail revenues excluding commodity sales to the schools and County.

3. All funds received in excess of those distributed in paragraph 2 above will be transferred to the general fund. Funds budgeted for specific utilities replacements and additions in a given fiscal year but not encumbered in that fiscal year shall be carried forward to the following fiscal year.
4. Council and Board will actively pursue modification to the existing agreement with the DOE to make the Electric Resource Power Pool arrangement equitable for the ratepayers, and produce an operating profit for the County for the risk associated with the operation of the Electric Resource Power Pool.

PASSED, ADOPTED, SIGNED AND APPROVED this 29th day of July, 1997.

COUNCIL OF THE INCORPORATED
COUNTY OF LOS ALAMOS, NEW MEXICO


DENISE SMITH, COUNCIL CHAIR



ATTEST: (SEAL)


NITA K. TAYLOR, COUNTY CLERK

INC COUNTY OF LOS ALAMOS
Utilities Profit Transfer Schedule
Fiscal Year 2018

Electric Distribution Fund 512

		FY 2017 Audited Sales	
Revenue Object			
4301	Residential metered	6,936,411.13	
4305	Private area lighting	13,457.57	
4311	Commercial metered	4,535,051.61	
4314	Industrial sales	-	
			11,484,920.31
			0.05
			<u>574,246.02</u>

Gas Fund 531

		FY 2017 Audited Sales	
4301	Residential metered	3,549,663.85	
4311	Commercial metered	593,836.13	
			4,143,499.98
			0.05
			<u>207,175.00</u>
Total			<u><u>781,421.02</u></u>

**INCORPORATED COUNTY OF LOS ALAMOS
JOINT UTILITY SYSTEM PROFIT TRANSFER AND IN LIEU PAYMENTS
TO THE GENERAL FUND**

Table 26

LAST TEN FISCAL YEARS

Fiscal Year	FRANCHISE FEES [a]		IN LIEU TAX [b]		PROFIT TRANSFER [c]		TOTAL JOINT UTILITY SYSTEM
	ELECTRIC DISTRIBUTION	GAS	ELECTRIC PRODUCTION	ELECTRIC DISTRIBUTION	ELECTRIC	GAS	
2008	210,508	174,613	237	114,181	414,925	420,184	1,366,011
2009	210,931	164,301	219	141,275	442,643	402,342	1,392,853
2010	221,476	157,979	902	200,748	437,711	374,584	1,448,211
2011	225,931	123,703	747	174,095	466,858	361,617	1,400,582
2012	235,444	108,900	2,474	181,565	457,600	282,776	1,318,681
2013	233,512	109,421	4,533	175,552	486,879	250,684	1,322,416
2014	231,282	128,916	13,924	189,561	478,324	253,562	1,364,356
2015	247,143	107,219	17,208	206,136	484,485	297,390	1,436,585
2016	279,200	97,940	100,338 [d]	231,536	524,540	246,867	1,562,087
2017	251,845	107,486	70,055	297,050	594,681	226,475	1,645,467

Sources: County financial records

Notes:

[a] Franchise Fees are 2% of all Electric Distribution and Gas revenue from all rate classes.

[b] In Lieu of Property Tax is the net book value of Electric and Gas fixed assets divided by three, times the Los Alamos County property tax rate.
In Lieu excludes San Juan, El Vado and Abiquiu assets located outside Los Alamos County.

[c] Profit Transfer is 5% of Electric Distribution and Gas retail revenues excluding sales to schools and the County.

[d] Begon paying in lieu tax for solar assets



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.:	6.C
Index (Council Goals):	BCC - N/A
Presenters:	James Alarid, Deputy Utilities Manager - Engineering
Legislative File:	10393-18

Title

Award of Bid No. IFB18-22 for the Purpose of Otowi Well #2 Transmission Line Improvements with General Hydronics Utilities, Inc. in the Amount of \$181,775.88, plus Applicable Gross Receipts Tax

Recommended Action

I move that the Board of Public Utilities approve the Award of Bid No. 18-22 for the Purpose of the Otowi Well #2 Transmission Line Improvements with General Hydronics Utilities, Inc. in the Amount of \$181,775.88 and a contingency in the amount of \$25,000.00, for a total of \$206,775.88, plus Applicable Gross Receipts Tax and forward to Council for approval.

Staff Recommendation

Staff recommends that the Board approve as presented.

Body

This project will install approximately 2,000 feet of 12" ductile iron pipeline from the new Otowi Well No. 2 to the existing water transmission line in State Road 4. The new line will be placed within the Los Alamos Canyon dirt access road. Ten bids were received for this project and General Hydronics Utilities Inc. was the lowest responsive bidder. Work will begin in early April and is scheduled to be completed in 60 days.

Alternatives

If the project is not awarded a new solicitation will be initiated since the new well cannot be placed into service until the pipeline is built.

Fiscal and Staff Impact/Planned Item

This project has been funded in fiscal year 2018 as part of \$1.5 million to equip the new Otowi Well #2.

Attachments

None



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.:	6.D
Index (Council Goals):	BCC - N/A
Presenters:	Bob Westervelt, Deputy Utilities Manager - Finance/Admin
Legislative File:	10299-18

Title

Approval to Establish San Juan Generating Station Decommissioning Agreement Trust Fund

Recommended Action

I move that the Board of Public Utilities authorize the Utilities Manager to execute all necessary and proper documents to affect the agreement of the San Juan Project Participants in creating an individual trust agreement between the County and an approved trustee, for the purpose of fulfilling the County's funding obligation under the San Juan Generating Station Decommissioning Trust Fund Agreement, and refer to Council for Approval.

Staff Recommendation

The Utilities Manager recommends that the Board of Public Utilities approve the motion as presented.

Body

Los Alamos County is a participant in the San Juan Generating Station near Farmington New Mexico. Ownership and participation in the San Juan plant was revised and restructured through The San Juan Project Restructuring Agreement among the San Juan Project participants dated July 31, 2015, and the Exit Date Amendment Amending and Restating the Amended and Restated San Juan Project Participation Agreement among the San Juan Project participants, also dated July 31, 2015. The Participants' rights and obligations with respect to Plant Decommissioning Costs are governed by the San Juan Decommissioning and Trust Funds Agreement among the San Juan Project Participants, also dated July 31, 2015. "Closing" on these restructuring agreements became effective on or about December 31, 2017. The Decommissioning Agreement requires that within 90 days of closing on the restructuring agreements an Irrevocable Trust Fund be established and funded by each Project Participant to satisfy that participant's share of decommissioning costs, as defined by the Decommissioning Agreement. This item gives the Utilities Manager direction and authority to take such actions and execute such agreements as are required to meet this obligation by establishment of the required trust account.

Alternatives

Establishment of this trust is an obligation already accepted via the restructuring agreements, including the San Juan Decommissioning and Trust Funds Agreement among the San Juan Project Participants, which was executed on July 28, 2015. Should this motion not pass the County would have to authorize someone else to execute the required agreements or stand in default on the Decommissioning and Trust Funds Agreement.

Fiscal and Staff Impact

We have been accruing funds for Plant Decommissioning for several years and will use these moneys to fund the Trust Account, so there is no immediate fiscal impact. This action will simply direct and authorize the Utilities manager to establish the Trust Account. The funding of the Trust will simply involve a transfer of funds from one restricted account to another on the fund statement of the Electric Production Utility's sub-fund.

Attachments

A - Decommissioning Trust Funds Agreement

FINAL VERSION 6/02/2017
TEMPLATE DECOMMISSIONING TRUST AGREEMENT

SAN JUAN GENERATING STATION
DECOMMISSIONING TRUST AGREEMENT

This San Juan Generating Station Decommissioning Trust Agreement (“Decommissioning Trust Agreement”) is entered into as of February 28, 2018, by and between THE INCORPORATED COUNTY OF LOS ALAMOS, a body politic and corporate (“the County”) in its capacity as a participant in the San Juan Project, and BOKF, N.A. dba Bank of Albuquerque, as Trustee (in its capacity as Trustee hereunder, the “Trustee”), upon the terms and conditions set forth in this Decommissioning Trust Agreement. The County and the Trustee are collectively referred to as the “Parties” or individually as a “Party”.

RECITALS

WHEREAS, the San Juan Project is a coal-fired electric generation plant located in San Juan County, near Farmington, New Mexico, also known as the San Juan Generating Station (“SJGS,” “San Juan Project” or “Project”).

WHEREAS, Public Service Company of New Mexico (“PNM”), Tucson Electric Power Company (“TEP”), The City of Farmington, New Mexico (“Farmington”), M-S-R Public Power Agency (“M-S-R”), The Incorporated County of Los Alamos, New Mexico (“Los Alamos”), Southern California Public Power Authority (“SCPPA”), City of Anaheim (“Anaheim”), Utah Associated Municipal Power Systems (“UAMPS”) and Tri-State Generation and Transmission Association, Inc. (“Tri-State”) (collectively, the “Decommissioning Parties”) have entered into the San Juan Decommissioning and Trust Funds Agreement dated July 31, 2015 (“July 2015 Agreement”), to establish a methodology for planning and approving SJGS Decommissioning Work and funding and allocating the cost of Decommissioning Work as defined in the July 2015 Agreement.

WHEREAS, PNMR Development and Management Corporation (“PNMR-D”) was also a party to the July 2015 Agreement, but PNMR-D has assigned its interests and delegated its obligations under the July 2015 Agreement to PNM.

WHEREAS, this Decommissioning Trust Agreement is being entered into pursuant to the July 2015 Agreement.

AGREEMENT

NOW, THEREFORE, for valuable consideration, the receipt of which is acknowledged, The County and the Trustee agree that The County is herewith transferring funds to the Trustee, pursuant to the terms of this Decommissioning Trust Agreement, to be held in trust (such trust being referred to herein as the “Decommissioning Trust”) under the terms of this Decommissioning Trust Agreement for the benefit of the Beneficiaries as identified in Section 2.1 and as required by the July

2015 Agreement. Furthermore, the Trustee agrees to take all actions related to the trust assets pursuant to the terms of this Decommissioning Trust Agreement.

ARTICLE 1 NAME OF TRUST AND PURPOSE

1.1 Name. This San Juan Generating Station Decommissioning Trust Agreement may be referred to as the “Decommissioning Trust Agreement.”

1.2 Purpose. The purpose of this Decommissioning Trust Agreement is to provide funding for the payment of Decommissioning Costs for the San Juan Project in accordance with The County’s obligations as set out in the July 2015 Agreement.

ARTICLE 2 TRUST BENEFICIARIES

2.1 Identification of Beneficiaries. The beneficiaries of this Decommissioning Trust (“Beneficiaries”) are: (i) The County, as the settlor; (ii) each of the other Decommissioning Parties; and (iii) the Decommissioning Agent as provided for in the July 2015 Agreement. At the time of the establishment of The County’s Trust, The County will notify the Trustee of the names and contact information of all of the Decommissioning Parties and the Decommissioning Agent.

2.2 Settlor’s Relinquishment of Beneficial Interest. The County, as settlor of the Decommissioning Trust, retains no beneficial interest in the funds held in trust except to utilize funds in the Decommissioning Trust as set forth in Section 4 and to receive a return of any funds that may remain in the Decommissioning Trust after the purposes of the Decommissioning Trust have been accomplished and the Decommissioning Trust has been terminated.

ARTICLE 3 DECOMMISSIONING TRUST FUND

3.1 Decommissioning Trust Fund. The County hereby establishes and is funding herewith the Decommissioning Trust Fund in accordance with the July 2015 Agreement. Prior to termination, funds may be disbursed from the Decommissioning Trust Fund for the following and no other purposes: (a) to pay the costs and fees associated with the maintenance of the Decommissioning Trust Account, including the fees and expenses of the Trustee; and (b) to pay The County’s Decommissioning Share (as defined in Section 5.3 and Exhibit A of the July 2015 Agreement) of Decommissioning Costs pursuant to invoices rendered to The County by the Decommissioning Agent (as that term is defined in the July 2015 Agreement) and approved for payment by The County. The Trustee will pay funds out of the Decommissioning Trust Fund in accordance with the following procedures. The Decommissioning Agent must bill The County, in writing, for Decommissioning Costs at least ten (10) Business Days prior to the date that payment is due. The term “Business Day” means any day of the year, excluding Saturday, Sunday and any other day on which

the Trustee is closed for business. The County must promptly review such invoice and, upon The County's review and approval of such invoice from the Decommissioning Agent, must direct the Trustee to pay such invoice by making payment out of the assets of the Decommissioning Trust, in immediately available funds, to the Decommissioning Agent. Upon the making of such payment, the Trustee must provide notice of such payment to The County. The County must provide the Trustee with appropriate wiring (or Automated Clearing House) instructions for the making of payments in immediately available funds to the Decommissioning Agent. The County must notify the Trustee of the identity of the Decommissioning Agent and of any changes in the Decommissioning Agent. Subject to and in accordance with the terms and conditions hereof, the Trustee agrees that it will receive, hold in trust, invest, reinvest, and release, disburse or distribute the funds in the Decommissioning Trust Account ("Decommissioning Trust Fund"). All interest and other earnings on the Decommissioning Trust Fund will become a part of the Decommissioning Trust Account and the Decommissioning Trust Fund for all purposes, and all losses resulting from the investment or reinvestment thereof from time to time, and all amounts charged thereto to compensate or reimburse the Trustee for amounts owing to it hereunder from time to time, will be set off against the Decommissioning Trust Fund, from the time of such loss or charge, and thereafter no longer will constitute part of the Decommissioning Trust Fund.

3.2 Funding Provisions. The County must fund the Decommissioning Trust Account according to the terms set forth in the July 2015 Agreement. The Trustee will have no obligation to take any action whatsoever in connection with The County's funding of the Decommissioning Trust, or to enforce any obligations that The County has, or may have, under the July 2015 Agreement with respect to the funding of the Decommissioning Trust.

3.3 Notice to Trustee. The Trustee will be entitled to receive and may conclusively rely upon a written notice from The County of funding requirements pursuant to this Decommissioning Trust Agreement. Any notice described in this Section 3.3 will be delivered to the Trustee as provided in Section 11.12.

ARTICLE 4

IRREVOCABILITY; MODIFICATIONS

4.1 Modifications. A Decommissioning Trust created pursuant to this Decommissioning Trust Agreement is irrevocable and may not be modified by The County in a manner that (i) is inconsistent with the July 2015 Agreement; or (ii) will adversely affect the ability of any Beneficiary to perform its obligations under the July 2015 Agreement. It will be a condition to any modification of this Decommissioning Trust Agreement that The County has certified to the Trustee that such modification is not inconsistent with the July 2015 Agreement and will not adversely affect the ability of any Beneficiary to perform its obligations under the July 2015 Agreement. In no circumstance will this Decommissioning Trust Agreement be modified in a way that impacts the Trustee's rights or duties, without the Trustee's prior written consent.

ARTICLE 5 TRUSTEE'S DUTIES

5.1 Good Faith Duties of Administration. The Trustee must exercise reasonable care, skill and caution in the administration of the Decommissioning Trust and must administer the Decommissioning Trust in good faith, in accordance with the terms of this Decommissioning Trust Agreement. The Trustee must take reasonable steps to protect the Decommissioning Trust property.

5.2 No Conflicts of Interest. The Decommissioning Trust will be administered solely in the interests of the Beneficiaries. The Trustee may not permit to exist a conflict of interest between its duties under this Decommissioning Trust Agreement and its personal interests and must keep the Decommissioning Trust property separate from the Trustee's own property.

ARTICLE 6 TRUSTEE'S POWERS

6.1 Limited Powers. The Trustee will be vested with the following specific powers and discretion in addition to any other powers conferred upon the Trustee by law:

(a) Consultation with The County. The Trustee will have the power to regularly consult and confer with The County on all matters affecting the administration and investment of the Decommissioning Trust Fund to ensure that the Decommissioning Trust Funds are used for permitted purposes.

(b) Investment Decisions. The Trustee agrees to invest and reinvest the Decommissioning Trust Fund as provided herein. The Parties recognize and agree that the Trustee will not provide supervision, recommendations or advice relating to either the investment of the Decommissioning Trust Fund or the purchase, sale, retention or other disposition of any permitted investment. Interest and other earnings on investments will be added to the Decommissioning Trust Account. Any loss or expense incurred as a result of an investment will be borne by the Decommissioning Trust Account. The Trustee will have no responsibility or liability for any diminution in value of any assets held hereunder that may result from any investments or reinvestments made in accordance with the provisions contained herein. In the event that the Trustee does not receive written direction from The County or Investment Managers (as defined herein) concerning the investment of the Decommissioning Trust Fund, the Trustee will invest the Decommissioning Trust Fund in the Cavanal Hill Institutional Treasury Fund, or a successor or similar fund offered by the Trustee (the "Fund"). The Trustee is hereby authorized to execute purchases and sales of investments through the facilities of its own trading or capital markets operations or those of any affiliated entity. The County acknowledges that it has received, upon its request, and reviewed the Fund's prospectus and has determined that the Fund is an appropriate investment for the Decommissioning Trust Funds.

(c) Appointment of Investment Manager(s). The County may appoint one or more investment managers (the “Investment Managers”) to direct the investment of all or part of the Decommissioning Trust Fund. The County will also have the right to remove any such Investment Manager. The appointment of the Investment Manager(s) will be made in accordance with the July 2015 Agreement. The County will provide notice of any such appointment to the Trustee which notice will specify the portion of the Decommissioning Trust Funds with respect to which the Investment Manager has been designated. Each Investment Manager will certify in writing to the Trustee that it is qualified to act in the capacity provided under the relevant investment manager agreement, will accept its appointment as such Investment Manager, will certify the identity of the person or persons authorized to give instructions or directions to the Trustee on its behalf, including specimen signatures, and will undertake to perform the duties imposed on it under the relevant investment manager agreement. The Trustee may continue to rely upon all such certifications unless otherwise notified in writing by The County or the Investment Manager(s), as the case may be. The County may also utilize, as a Decommissioning Trust Account investment, pooled funds that are SEC-registered mutual funds, bank commingled funds, insurance company pooled funds or pooled funds of registered investment advisors whose portfolio is designed to track an equity or fixed income market index. Acting upon The County’s direction, the Trustee will procure for the Decommissioning Trust Account a pooled fund and will take the actions necessary to insure that the pooled fund’s value is properly reflected on the account statement.

(d) Direction by Investment Manager(s). The Investment Manager(s) designated by The County to manage any portion of the Decommissioning Trust Fund will have authority to manage such portion of the Decommissioning Trust Fund. Each Investment Manager is authorized to invest in securities specified by The County, which will be consistent with the guidelines established pursuant to the July 2015 Agreement. Each Investment Manager will have the power and authority, exercisable in its sole discretion at any time, and from time to time, to issue and place orders for the purchase or sale of portfolio securities directly with qualified brokers or dealers. The Trustee, upon proper notification from an Investment Manager, will execute and deliver in accordance with the appropriate trading authorizations. Written notification of the issuance of each such authorization will be given promptly to the Trustee by the Investment Manager(s), and the Investment Manager(s) will cause the execution of such order to be confirmed in writing to the Trustee by the broker or dealer. Such notification will be proper authority for the Trustee to pay for portfolio securities purchased against receipt thereof and to deliver portfolio securities sold against payment therefor, as the case may be.

(e) Authority of Investment Manager(s). The authority of the Investment Manager(s) and the terms and conditions of the appointment and retention of the Investment Manager(s) will be the responsibility solely of The County, consistent with the July 2015 Agreement, and the Trustee will not be deemed to be a party to or to have any obligations under any agreement of The County with the Investment Manager(s). Any duty of supervision or review of the acts, omissions or overall performance of the Investment Manager(s) will be the exclusive responsibility of The

County, and the Trustee will have no duty to review the actions of or performance by the Investment Manager(s) or to initiate any report or communication to The County with respect to the exercise or non-exercise of any power by the Investment Manager(s).

(f) Trustee Responsibility Regarding Investment Manager(s). The Trustee will be under no liability of any kind which may result by reason of any action taken by it in accordance with any direction of the Investment Manager(s). In any event, the Trustee will be under no liability for any loss of any kind by reason of changes in value of the investments purchased, sold or retained by the Investment Manager(s), nor for the risk or diversification of the portfolio, nor for the turnover of the investments, nor for any other aspect of a portfolio for which an Investment Manager(s) has been appointed.

(g) Purchase or Sale Orders. Orders for the purchase or sale of any security which are received by the Trustee before the published trade deadline then in effect will ordinarily be executed that day. Orders for the purchase or sale of any security which are received by the Trustee after the published trade deadline then in effect will ordinarily be executed the following Business Day.

(h) Account Statement. Receipt, investment and reinvestment of the Decommissioning Trust Funds will be confirmed by the Trustee in monthly account statements sent to The County and, if requested by The County, to any of the other Beneficiaries. Any discrepancies in any such account statement will be noted by The County to the Trustee within sixty (60) calendar days after receipt thereof. Failure to inform the Trustee in writing of any discrepancies in any such account statement within said sixty (60) day period will conclusively be deemed confirmation of such account statement in its entirety. For purposes of this Section 6.1(h), each account statement will be deemed to have been received by The County on the earlier to occur of (i) actual receipt thereof, or (ii) three (3) Business Days after the deposit thereof in the United States Mail, postage prepaid.

(i) Participation in Judicial Proceedings. The Trustee will have the power to take all steps reasonably necessary to protect, defend and conserve the Decommissioning Trust Fund in any judicial or administrative proceeding. The powers of the Trustee set forth in this Section 6.1(i) will not be construed as a duty, and the Trustee will have no obligation to take any action hereunder or to expend or risk its own funds or otherwise incur any potential liability unless and until it will have been indemnified to its satisfaction. In the event the Trustee becomes involved in litigation as a result of this Decommissioning Trust Agreement, the Trustee will be entitled to retain counsel and the fees and expenses of such counsel will be payable as provided in Section 9.1.

(j) Consultation with Legal Counsel. The Trustee may consult with its counsel or other counsel satisfactory to it concerning any question relating to its duties or responsibilities hereunder or otherwise in connection herewith and will be paid or reimbursed the reasonable and documented fees and expenses of such counsel. The

Trustee will in no event incur any liability for any action taken, suffered or omitted to be taken by it in good faith upon the advice of such counsel.

(k) Trustee Records and Reports. The Trustee must keep or cause to be kept and maintained accurate books and records reflecting all income, principal and expense transactions, which books and records will be open at all reasonable times for inspection by The County or its duly authorized representatives, upon at least two (2) Business Days prior written notice to the Trustee. The Trustee must furnish statements to The County and the Decommissioning Agent at least as often as annually, as directed by The County. The Trustee must promptly respond to requests for information related to the administration of the Decommissioning Trust from The County. When applicable and required by applicable regulations, the Trustee will issue annual IRS Form 1099.

(l) Scope of Undertaking. The Trustee as a fiduciary will be subject to and must perform all duties in accordance with this Decommissioning Trust Agreement. The Trustee will perform such duties and only such duties as are specifically set forth in this Decommissioning Trust Agreement, and no implied covenants, agreements or duties will be read into this Decommissioning Trust Agreement against the Trustee. The Trustee will have no duty to perform, cause the performance of, manage, monitor, evaluate or approve the Decommissioning Work. The Trustee is not a principal, participant, or beneficiary in any transaction underlying this Decommissioning Trust Agreement and will have no duty to inquire beyond the terms and provisions of this Decommissioning Trust Agreement except as specifically provided herein. The Trustee will not be required to deliver the Decommissioning Trust Fund or any part thereof, or take any action with respect to any matters that might arise in connection therewith, other than to receive, hold in trust, invest, reinvest, and release, disburse or distribute the Decommissioning Trust Fund as herein provided. The Trustee will not be required to notify or obtain the consent, approval, authorization or order of any court or governmental body to perform its obligations under this Decommissioning Trust Agreement, except as expressly provided herein. Without limiting the generality of the foregoing, it is hereby expressly agreed and stipulated by the Parties that, unless otherwise provided herein, the Trustee will not be required to exercise any discretion hereunder and will have no investment or management responsibility and, accordingly, will have no duty to, or liability for its failure to, provide investment recommendations or investment advice to The County. The Trustee will not be liable for any error in judgment, any act or omission, any mistake of law or fact, or for anything it may do or refrain from doing in connection herewith, subject, however, to its own willful misconduct or gross negligence. It is the intention of the Parties that the Trustee will not be required to use, advance or risk its own funds or otherwise incur financial liability in the performance of any of its duties or the exercise of any of its rights and powers hereunder.

(m) Reliance; Liability. The Trustee may act upon any instruction or direction, regardless of form, furnished to the Trustee in writing or any instrument or signature which it believes to be genuine and in conformance with the terms of this Decommissioning Trust Agreement, may assume the validity and accuracy of any statement or assertion contained in such a writing or instrument, and may assume that any

person purporting to give any writing, notice, advice, direction or instruction in connection with the provisions hereof has been duly authorized to do so, and the Trustee will be under no duty to make any investigation or inquiry into any of the foregoing. The Trustee will not be liable in any manner for the sufficiency or correctness as to form, manner and execution, or validity of any instrument deposited with it; neither will it be required to verify the identity, authority or right of any person executing the same. The Trustee will only be responsible for receiving, holding in trust, investing, reinvesting, and releasing, disbursing or distributing the Decommissioning Trust Fund as provided in this Decommissioning Trust Agreement; provided, however, that in no event will the Trustee be liable for any lost profits, lost savings, or other special, exemplary, consequential, or incidental damages, even if the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action; and provided, further, that the Trustee will have no liability for any loss arising from any cause beyond its control, including, but not limited to, the following: (a) acts of God, force majeure, including, without limitation, war (whether or not declared or existing), revolution, terrorism, insurrection, riot, civil commotion, accident, fire, explosion, stoppage of labor, strikes or other differences with employees; (b) the act, failure or neglect of The County or the Beneficiaries or any agent or correspondent or any other person selected by the Trustee; (c) any delay, error, omission or default of any mail, courier, or telecopier operator; or (d) the acts or edicts of any government or governmental agency or other group or entity exercising governmental powers. The Trustee is not responsible or liable in any manner whatsoever for the sufficiency, correctness, genuineness or validity of the subject matter of this Decommissioning Trust Agreement and any part hereof, for the transaction or transactions requiring or underlying the execution of this Decommissioning Trust Agreement or the form or execution hereof, or for the identity or authority of any person executing this Decommissioning Trust Agreement or any part hereof. The Trustee will not be liable in connection with the performance or observation of its duties or obligations hereunder except for in the case of its own gross negligence or willful misconduct. The Trustee will have no obligation or liability to The County under this Decommissioning Trust Agreement for the failure or refusal of The County to perform any covenant or agreement made by The County hereunder or under any other agreement, but will be responsible solely for the performance of the duties and obligations expressly imposed upon it as Trustee hereunder.

(n) Right of Interpleader. Should (a) any controversy arise involving the Parties or any other person, firm or entity with respect to this Decommissioning Trust Agreement or the Decommissioning Trust Fund, (b) a successor Trustee fail to be designated as provided in Section 10.1, or (c) the Trustee be in doubt as to what action to take, then, in each such circumstance, the Trustee will have the right, but not the obligation, either to (i) withhold delivery of the Decommissioning Trust Fund until the controversy is resolved, the conflicting demands are withdrawn, or its doubt is resolved, or (ii) institute a petition for interpleader in any court of competent jurisdiction to determine the rights of the Parties, of any of the Beneficiaries or of any other person. In the event the Trustee is a party to any dispute with respect to The County, the Beneficiaries, this Decommissioning Trust Agreement, or the Decommissioning Trust

Funds, the Trustee will have the additional right to refer such controversy to binding arbitration as described in Section 6.1(o), if applicable.

(o) Arbitration. Subject to the Trustee's right of interpleader as provided in Section 6.1(n), and The County's right to seek removal of the Trustee under Section 10.2, the Parties agree that all controversies which may arise between The County and the Trustee concerning the construction, performance or breach of this Agreement will be determined by arbitration.

(i) The arbitration will be held before a single arbitrator selected by the Parties, or, in the event that the Parties are unable to agree upon an arbitrator, a single arbitrator chosen by the American Arbitration Association from a panel of persons knowledgeable in the subject matter of the arbitration.

(ii) Any arbitration will be held in Albuquerque, New Mexico. The arbitration will be conducted in accordance with the commercial arbitration rules of the American Arbitration Association. The arbitration will be held and a final decision reached within thirty (30) days after the appointment of the arbitrator or such longer period as the Parties may agree. The arbitrator will file a certificate of ruling with the Parties immediately after a decision is reached. The decision of the arbitrator will be final and conclusive on the Parties, and there will be no relief or appeal therefrom, except for grounds set out in **[insert reference to appropriate arbitration statute]** (as may be amended from time to time). A decision of the arbitrator may be enforced by the prevailing Party in a court of competent jurisdiction. All other issues in connection with such arbitration will be determined in accordance with the rules of the American Arbitration Association.

(iii) The Parties agree that an action to compel arbitration pursuant to this Agreement will be brought in any court of competent jurisdiction in the State of New Mexico. Application may also be made to such court for confirmation of any decision or award of the arbitrator, which may be necessary to effectuate such decisions or awards. The Parties hereby consent to the jurisdiction of the arbitrator and of such court and waive any objection to the jurisdiction and venue of such arbitrator or court.

(iv) The prevailing Party in any arbitration is entitled to reimbursement of reasonable attorneys' fees and disbursements and costs of arbitration from the non-prevailing Party as determined by the arbitrator.

(p) Indemnification. The Trustee will have no obligation to take any legal action in connection with this Decommissioning Trust Agreement or towards its enforcement, or to appear in, prosecute or defend any action or legal proceeding that would or might involve it in any cost, expense, loss or liability unless indemnity, as provided in this Section 6.1(p), will be furnished; provided, that the Trustee may rely on the protections of this Section 6.1(p) without a requirement for further action by The County.

To the extent permitted by applicable law, The County agrees to indemnify the Trustee and its officers, directors, employees and agents (the “Indemnified Parties” and each an “Indemnified Party”) and save and hold the Indemnified Parties harmless from and against any and all Claims (as hereinafter defined) and Losses (as hereinafter defined) which may be incurred by an Indemnified Party a result of Claims asserted against such Indemnified Party as a result of or in connection with such Indemnified Party’s capacity as such under or in connection with this Decommissioning Trust Agreement by any person or entity. For the purposes hereof, the term “Claims” will mean all claims, lawsuits, arbitrations, mediations, causes of action or other legal actions and proceedings of whatever nature brought against (whether by way of direct action, counterclaim, cross action or impleader) an Indemnified Party, even if groundless, false or fraudulent, so long as the claim, lawsuit, arbitration, mediation, cause of action or other legal action or proceeding is alleged or determined, directly or indirectly, to arise out of, result from, relate to or be based upon, in whole or in part: (a) the acts or omissions of The County, the Beneficiaries or an Investment Manager, (b) the appointment of the Trustee as Trustee under this Decommissioning Trust Agreement, or (c) the exercise by the Trustee of its powers and discharge of its duties under and in accordance with this Decommissioning Trust Agreement, including any alleged failure to exercise or discharge same, except to the extent that such result from the willful misconduct or gross negligence of such Indemnified Party; and the term “Losses” will mean losses, costs, damages, expenses, judgments and liabilities of whatever nature (including, but not limited to, attorneys’, accountants’ and other professionals’ fees, litigation, arbitration, mediation and court costs and expenses and amounts paid in settlement), directly or indirectly resulting from, arising out of or relating to one or more Claims. Upon the written request of an Indemnified Party, and to the extent permitted by law, The County agrees to assume the investigation and defense of any Claim, including the employment of counsel acceptable to such Indemnified Party and the payment of all expenses related thereto and, notwithstanding any such assumption, such Indemnified Party will have the right, and The County agrees to pay the cost and expense, to employ separate counsel with respect to any such Claim and participate in the investigation and defense thereof in the event that such Indemnified Party will have been advised by counsel that there may be one or more legal defenses available to such Indemnified Party that are different from or in addition to those available to The County. The County hereby agrees that the indemnification and protections afforded the Indemnified Parties in this Section 6.1(p) will survive the resignation or removal of the Trustee and the termination of this Decommissioning Trust Agreement.

(q) Registration of Securities. The Trustee will have the power to hold any stocks, bonds, securities, and/or other property in the name of a nominee, in a street name, or by other title-holding device.

ARTICLE 7
TERMINATION OF THE TRUST AND OF THE
DECOMMISSIONING TRUST AGREEMENT

7.1 Termination of Decommissioning Trust and of this Decommissioning Trust Agreement. The Decommissioning Trust and this Decommissioning Trust Agreement will terminate no earlier than twenty-four (24) months after the Decommissioning Committee established in the July 2015 Agreement determines that the Decommissioning Work is complete; provided, however, that in the event all fees, expenses, costs and other amounts required to be paid to the Trustee hereunder are not fully and finally paid prior to termination, the provisions of Section 9.1 will survive the termination hereof, and provided further, that the provisions of Section 6.1(n) and Section 6.1(p) (if applicable) will, in any event, survive the termination hereof. Notice of termination of the Decommissioning Trust and of this Decommissioning Trust Agreement must be provided to the Trustee in the following manner: the Decommissioning Agent, at the direction of the Decommissioning Committee, must give written notice to The County and to each of the other Decommissioning Parties that the Decommissioning Work was completed, and The County must, in turn, give written notice to the Trustee of the satisfaction of The County's obligations under the July 2015 Agreement.

7.2 Distribution of Assets. Until satisfaction of The County's obligations under the July 2015 Agreement, The County will have no right of return of any of the Decommissioning Trust Fund. Upon the termination of this Decommissioning Trust Agreement, the Trustee must distribute any remaining assets in the Decommissioning Trust Account to The County.

ARTICLE 8
APPOINTMENT OF TRUSTEE

8.1 Power of Appointment. The County has the power to appoint the initial Trustee.

8.2 Appointed Trustees. The County hereby appoints BOKF, N.A. dba Bank of Albuquerque to serve as the Trustee, and BOKF, N.A. dba Bank of Albuquerque hereby accepts such appointment, for the purposes and subject to the terms and conditions set forth in this Decommissioning Trust Agreement.

8.3 Successor Trustee. If for any reason or at any time the Trustee, or its successor, is unwilling or unable to act, or resigns or is removed pursuant to Article 10, then a successor will be appointed by The County.

8.4 Bond. No bond is required of the Trustee or of any successor Trustee or, if a bond is required by law, no surety on such bond is required. If, however, a court

requires a bond, the premium of any surety will be payable out of the Decommissioning Trust Fund.

ARTICLE 9 COMPENSATION OF TRUSTEE

9.1 Compensation and Reimbursement of Expenses.

(a) The Trustee will charge for its trust services hereunder in accordance with the Trustee's fee schedule as in effect from time to time (the "Trustee Fee") and the Trustee will be reimbursed for all expenses incurred by the Trustee in connection with the performance of its duties and enforcement of its rights hereunder and otherwise in connection with the preparation, operation, administration and enforcement of this Decommissioning Trust Agreement, including, without limitation, attorneys' fees, brokerage costs and related expenses incurred by the Trustee ("Trust Expenses"). The County will be liable to the Trustee for the payment of the Trustee Fee and Trust Expenses; provided, however, the Trustee may, in its discretion, charge the Trustee Fee and Trust Expenses to the Decommissioning Trust Fund.

(b) All amounts payable to the Trustee or any Indemnified Party pursuant to this Decommissioning Trust Agreement, including, without limitation, any such amounts payable to the Trustee or any Indemnified Party pursuant to Sections 6.1(j) and 6.1(p), may be deducted by the Trustee from the Decommissioning Trust Fund, with all such deductions being made first from interest and other returns earned on the Decommissioning Trust Fund, and to the extent such interest and other returns earned with respect to the Decommissioning Trust Fund are insufficient to pay such amounts, from the principal of the Decommissioning Trust Fund. If such deductions are insufficient to pay all amounts owed to the Trustee, The County will be liable for the excess amount.

(c) The Trustee will notify The County of all deductions made under this Section 9.1 by reflecting such deductions in monthly account statements, as provided in Section 6.1(h).

(d) The Trustee will notify The County in advance of any material change in the method or rate of the Trustee's compensation.

ARTICLE 10 RESIGNATION OR REMOVAL OF TRUSTEE

10.1 Resignation of Trustee. In the event that any Trustee desires to resign, such Trustee will have the right to resign at any time by giving sixty (60) days prior written notice to The County; provided, however, that no such resignation by a Trustee will become effective until the date on which a written acceptance by a successor Trustee is delivered to the resigning Trustee.

10.2 Removal of Trustee. The County may request that the Trustee resign at any time by giving thirty (30) days' written notice to the Trustee, and the Trustee will resign. The County may petition any court having jurisdiction in the premises for removal of the Trustee for failure to resign when requested to do so, to administer this Decommissioning Trust Agreement expeditiously for the purposes stated in this Decommissioning Trust Agreement, for a breach of trust or for other failure to perform the general duties of the Trustee in accordance with the standards of care and performance as set forth herein; provided, however, that the removal of the Trustee will not become effective until the date on which a written acceptance by a properly qualified successor Trustee is delivered to the removed Trustee or said court.

ARTICLE 11

MISCELLANEOUS PROVISIONS

11.1 The Trustee. Whenever in this Decommissioning Trust Agreement reference is made to the "Trustee", such reference will be deemed to include not only the initial Trustee, but also any and all successor Trustees at any time qualified and acting hereunder, and all rights and powers given in this Decommissioning Trust Agreement to the Trustee will be vested in such successor Trustees. Any banking association or corporation into which the Trustee may be merged, converted or with which the Trustee may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee will be a party, or any banking association or corporation to which all or substantially all of the business of the Trustee will be sold or otherwise transferred, will succeed to all the Trustee's rights, obligations and immunities hereunder without the execution or filing of any instrument or any further act, deed or conveyance on the part of the Parties, anything herein to the contrary notwithstanding.

11.2 Spendthrift Clause. The interests of the Beneficiaries are held subject to a spendthrift trust. No interest in the Decommissioning Trust Fund established pursuant to this Decommissioning Trust Agreement will be transferable or assignable, voluntarily or involuntarily, or be subject to the claims of The County or its creditors other than as provided in the July 2015 Agreement.

11.3 Tax Matters. The County must provide the Trustee with its taxpayer identification number documented by an appropriate Form W8 or W9 (or other appropriate identification information for tax purposes) upon execution of this Decommissioning Trust Agreement. Failure to provide such form may prevent or delay disbursements from the Decommissioning Trust Fund and may also result in the assessment of a penalty and the requirement that the Trustee withhold tax on any interest or other income earned on the Decommissioning Trust Fund. The Parties agree that, for all tax purposes, all interest or other income, gain, or loss from investment of the Decommissioning Trust Fund, as of the end of each calendar year and to the extent required by the Internal Revenue Service or other taxing authority, will be reported as having been earned or lost, as the case may be, by The County. Any payments of income will be subject to applicable withholding regulations then in force in the United States or any other jurisdiction, as applicable.

11.4 Tax Liability of the Trustee. To the extent that the Trustee becomes liable for the payment of any taxes with respect to income derived from the investment of the Decommissioning Trust Fund, the Trustee will satisfy such liability to the extent possible from the Decommissioning Trust Fund. To the extent such amounts cannot be satisfied from the Decommissioning Trust Fund, The County agrees to indemnify, defend and hold the Trustee harmless from and against any tax, late payment, interest, penalty or other cost or expense that may be assessed against the Trustee on or with respect to the Decommissioning Trust Fund and the investment thereof unless any such tax, late payment, interest, penalty or other expense was caused by the gross negligence or willful misconduct of the Trustee. The indemnification provided by this Section 11.4 is in addition to the indemnification provided in Section 6.1(p) and will survive the resignation or removal of the Trustee and the termination of this Decommissioning Trust Agreement.

11.5 Binding Effect. This Decommissioning Trust Agreement will extend to and be binding upon the heirs, executors, administrators, legal representatives, assignees, and successors, respectively, of The County and the Trustee. The foregoing notwithstanding, no assignment of the interests of The County will be binding on the Trustee unless and until written notice of such assignment will be delivered to and acknowledged by the Trustee.

11.6 Captions. The captions, section and paragraph headings of this Decommissioning Trust Agreement are not necessarily descriptive, or intended or represented to be descriptive of all the provisions thereunder, and in no manner will such captions, section and paragraph headings be deemed or interpreted to limit the provisions of this Decommissioning Trust Agreement.

11.7 Numbers and Genders. Whenever used herein, unless the context will otherwise provide, the singular number will include the plural, the plural the singular, and the use of any gender will include all genders.

11.8 Severability. If any provision of this Decommissioning Trust Agreement, or the application of such provisions to any person or circumstances, will be held invalid, the remainder of this Decommissioning Trust Agreement, or the application of such provisions to persons or circumstances other than those to which it is held invalid, will not be affected thereby.

11.9 Governing Law. The validity, construction, and effect of this Decommissioning Trust Agreement, the administration thereof and the rights and obligations of the Parties will be governed by the laws of the State of New Mexico.

11.10 Counterparts. This Decommissioning Trust Agreement may be executed in any number of counterparts, and it will not be necessary that the signatures of both Parties be contained on any counterpart. Each counterpart will be deemed an original, but all counterparts together will constitute one and the same instrument.

11.11 Not FDIC Insured. The County acknowledges that investments in mutual funds, money market mutual funds, and any other non-deposit investment products are not insured by the FDIC; are not deposits or other obligations of, or guaranteed by Bank; and are subject to investment risks, including possible loss of the principal amount invested.

11.12 Notices. Any notice, demand or request provided for in this Agreement, or served, given or made in connection with it, will be deemed properly served, given or made (i) when delivered personally or by prepaid overnight courier, with a record of receipt; (ii) on the fourth day after mailing if mailed by certified mail, return receipt requested; or (iii) on the day of transmission, if sent by facsimile or electronic mail during regular business hours or the day after transmission, if sent after regular business hours (provided, however, that such facsimile or electronic mail will be followed on the same day or next Business Day with the sending of a duplicate notice, demand or request by a nationally recognized prepaid overnight courier with record of receipt), to the Parties specified below. The following notice information may be changed at any time by written notice to the other Party.

If to the Trustee:

Bank of Albuquerque
Corporate Trust
100 Sun Avenue NE Suite 500
Albuquerque, NM 87109
Telephone 505-222-8457
Facsimile 505-222-8453

If to The County:

The Incorporated County of Los Alamos
Attention Deputy Utilities Manager, Finance and Administration
1000 Central Avenue Suite 130
Los Alamos, NM 87544
Telephone 505-662-8001
Facsimile 505-662-8005

11.13 Waivers. Any failure by either Party to comply with any of its obligations, agreements or conditions herein contained may be waived by the Party to whom such compliance is owed by an instrument signed by the Party to whom compliance is owed and expressly identified as a waiver, but not in any other manner. No waiver of, or consent to a change in, any of the provisions of this Decommissioning Trust Agreement will be deemed or will constitute a waiver of, or consent to a change in, other provisions hereof (whether or not similar), nor will such waiver constitute a continuing waiver unless otherwise expressly provided.

11.14 Entire Agreement; Amendments. This Decommissioning Trust Agreement constitutes the entire agreement of the Parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral, and all prior written,

understandings, agreements, solicitation documents and representations, express or implied, between the Parties. By execution of this Decommissioning Trust Agreement, the Trustee will not be deemed or considered to be a party to any other contract or agreement, including any agreement between or among The County and any of the Decommissioning Parties. The County acknowledges that it will not enter into any modification of this Decommissioning Trust Agreement, including of any "Mandatory Provision" of this Decommissioning Trust Agreement, except as provided for in Section 4.1 and in the July 2015 Agreement.

11.15 Third Party Beneficiaries. Nothing in this Decommissioning Trust Agreement will entitle any person other than the Parties to any claim, cause of action, remedy, or right of any kind, except the rights expressly provided to the persons described in Section 6.1(p) (if applicable).

IN WITNESS WHEREOF, the Parties have executed this San Juan Generating Station Decommissioning Agreement on the date first above written.

THE COUNTY

By: _____
Name: Tim Glasco
Title: Utilities Manager

BANK, as Trustee

By: _____
Name: _____
Title: _____



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.:	7.A
Index (Council Goals):	BCC - N/A
Presenters:	Steve Cummins, Deputy Utilities Manager - Power Supply
Legislative File:	10402-18

Title

Board of Public Utilities Discussion on the Carbon Free Power Project

Recommended Action

None

Staff Recommendation

None

Body

Los Alamos County became a member of the Utah Associated Municipal Power Systems (UAMPS) and specifically a participant in the Resource Project on April 16, 2014. DPU staff has been following the development of the Carbon Free Power Project (CFPP), which is a projected 600MW small modular reactor (SMR) facility. As it is being designed, the facility would house up to twelve NuScale nuclear power modules, each capable of generating up to fifty megawatts of electric power for a total plant capacity of 600MW.

The CFPP is under consideration by LAC as a potential replacement base load power resource after retirement of the County's coal generation assets as early as 2022 and as a step towards meeting our goal of being a carbon neutral electric utility by 2040.

In August of 2015, BPU and CC approved an agreement allowing DPU to participate in the CFPP Study Phase and Siting Agreement with UAMPS also referred to as the fatal flaw analysis. The approved budget for this study phase was \$145,540.00 to be shared by DOE-LANL and LAC on an approximate 80/20 split, respectively. No fatal flaws were discovered in this phase, clearing the path for continued development. However, it was subsequently determined that DOE-LANL is unable to participate any further with LAC in the CFPP through the existing electric coordination agreement. Future costs would therefore be wholly the responsibility of LAC, unless some other form of participation agreement can be agreed upon with DOE.

In 2017 DPU completed an Integrated Resource Plan (IRP) comparing all of the options to serve the County's Electric Demand on a Levelized Cost of Energy (LCOE) basis, while meeting our carbon neutral goal. The IRP identified solar with storage as having the lowest LCOE among the options considered. The CFPP came in second at approximately 3.5% higher cost based on the \$65/MWh cap the participants have determined to be the maximum they're willing to pay.

The next step in the CFPP development is the Licensing Period, which will be broken up into two phases. The first phase will be the preparation of the Combined Operating License Application (COLA). If the CFPP participants choose to move forward following the COLA preparation, the second phase will be submittal of the COLA to the Nuclear Regulatory Commission for review and approval. The estimated cost of the next phase to the County is \$497k, assuming support from the DOE in the form of a grant and 100% subscription of the plant capacity.

On January 25th DPU and UAMPS staff presented the latest information on the CFPP to gain a clear understanding of Public, BPU and CC concerns with continuing our participation. On January 26, DPU staff initiated an Open Forum on DPU Website giving our customers another opportunity to express their opinions on the CFPP.

At the February 21st Board meeting, the Board members will have a discussion about the concerns raised at the January 25th public meeting which was then followed by a joint BPU and CC meeting. Further discussion of the CFPP will help the Board gain a better understanding of the cost exposure and risk to the department by participating in the next phase prior to making a decision, currently scheduled for the March 21, 2018 regular meeting.

Alternatives

Discussion only

Fiscal and Staff Impact

Discussion only

Attachments

None



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.:	7.B
Index (Council Goals):	BCC - N/A
Presenters:	Bob Westervelt, Deputy Utilities Manager - Finance/Admin
Legislative File:	10339-18

Title

Discussion About Advanced Metering Infrastructure (AMI)

Recommended Action

Discussion item only - no action requested

Staff Recommendation

N/A Discussion item only

Body

In 2016 the DPU issued RFP 2016-2031 for system wide deployment of Advance Metering Infrastructure. This was at about the same time as the County's ERP project was being competed and moving forward. In order to better coordinate the two projects, the decision was made to postpone the AMI project, so that RFP was cancelled. We reissued the RFP in late 2016. Through a multi-step selection process, an offeror was selected to provide system wide deployment of AMI and subsequent operational support. Unfortunately, an impasse was reached in contract negotiations, so that award was rescinded. The selection committee reviewed the proposals and scoring and determined that award to the next highest scoring responsive bidder is in the best interest of the County, and we have initiated contract negotiations with that offeror. We hope to bring that contract for approval within the next several months.

BACKGROUND: DPU began considering implementation of AMI several years ago as the capabilities of the available systems improved in response to the development of more complex pricing models which began to emerge, primarily in the electric industry, in the early 2000s. The DPU conducted a pilot deployment as part of the NEDO Project in 2012 through 2014. While the project was limited in scope and distribution, the Department did learn and realize the impact advanced metering could have on our systems and business model, and made the strategic decision to explore the business case for system wide deployment. In 2015 the Department engaged Power Systems Engineering, a consulting firm specializing in electric grid modernization and utilities metering systems, to conduct a business case analysis for full implementation of advanced metering for all the metered services (electric, gas, and water), system wide. The study identified both economic benefits and non-economic benefits, both of which have been considered in the decision to move forward. Only considering the economic benefits, the analysis indicated a fourteen-year payback for a representative system. Excerpts from the PSE report are included as an attachment to this staff report.

PROJECT OBJECTIVES: System wide deployment of advanced metering offers many benefits

to customers of the DPU.

- More accurate metering. While some customers may see increases in their bills, this would be a result of more accurate metering. It is important to remember that any consumption that is not metered simply adds to the “socialized cost of doing business”. More accurate metering yields the result that those customers using the metered commodities pay for them, rather than some portion of their consumption being spread to all customers.
- Reduced Meter reading costs. The five-person crew of meter readers, plus equipment and vehicles, will no longer be required. The department has been working with affected personnel to transition them into other vacancies as they materialize. We anticipate that one or two “metering technicians” will be required to manage the metering system, but the net result is anticipated reduction of staffing by three to four FTE’s upon full system implementation.
- Reduced billing costs. Again, because of the constraints of manually reading meters, billing is required to be handled in 22 separate read cycles. The billing staff runs billing essentially every business day of the month. With full deployment of advanced metering, we will be able to establish more efficient billing schedules.
- Reduced costs for turn on/turn offs, move in/move outs, rereads, and other account management issues. For example, when a customer comes in with a question about their readings, the customer service representative can “ping” the meter real time, right then and there, and get an accurate reading to correct or confirm the billing in question. This functionality has been in place in the pilot project deployment area for two years or more, and has proven to be extremely useful and reliable for resolving billing disputes or errors.
- Two way communications. The system provides for true two-way communications, so customers can be notified of service events or issues by way of an in-home display, SMS message, or mobile app.
- Real time leak detection and notification. All three meters can be set to monitor and detect potential leaks. If consumption is registered constantly for a defined period of time, notice can automatically be generated to the Utility or the customer advising them of a possible leak. This can save customers thousands of dollars in consumption and potential damages, compared to not being aware of the abnormal consumption until their next regular read and billing cycle.
- Customers can also monitor their consumption and realize savings by managing their consumption real time. If you only get your consumption information in monthly totals and only once per month, it is harder to recognize and take advantage of incremental opportunities for savings.
- Functionality of the Smart Customer Mobile app, is realized. We implemented the customer mobile application last year, but with only limited functionality, as many of the capabilities and features require real time, or at least incremental reads, to be fully realized.
- Improved outage management. Through advanced metering, the Utility can be notified of actual or impending outages, and may be able correct the situation, often before customers are even aware that an event was occurring. Engineers can also monitor the system and determine the exact scope of an outage, and can monitor restoration efforts.
- Advanced rate design. There are many exciting rate options that can improve system reliability, reduce costs system wide, and save individual customers money, all facilitated

by the advanced metering's measurement of incremental consumption. For example, demand response programs can be initiated, allowing customers to choose to shift their consumption to lower cost non-peak periods.

- Account management is improved. For example, Account Prepay can be enabled, allowing a customer to pay in advance, and notifying that customer as available funds reach predetermined thresholds. This allows the customer to make real time decisions as to whether to curtail consumption. This is especially helpful to households that have trouble keeping up with their bills.

PRIVACY OR HEALTH CONCERNS: In some areas of the US, citizens have expressed concern over having "smart meters" installed at their properties. The concern most often expressed relates to having RF transmissions in close proximity to the customer's domicile and any potential subsequent health impacts. This health concern has been studied and the extremely low power of the RF transmission from meters has not been shown to have any adverse health effects. The other most common concern heard relates to the potential for loss of privacy should someone be able to access the data from a customer's meter. All AMI systems that would be considered have extremely advanced data encryption and security protocols. No instance has yet, to our knowledge, occurred where anyone has hacked into a smart meter data transmission and used the information for nefarious purposes. More information on these issues and links to relevant and credible studies are posted on the DPU website.

Alternatives

N/A. Discussion item only

Fiscal and Staff Impact

The project will involve an initial cash outlay of approximately \$4.9M and continuing annual operating costs of approximately \$100k. It is anticipated that the meter reading function, currently a crew of five FTE's, will be eliminated, but would be replaced by a Metering Technician function of one or two FTE's. With reductions in system losses due to more accurate metering, reduction in account costs due to the ability to service meters and accounts remotely rather than having to dispatch a crew, and improved outage and restoration management, the expected fiscal payback (economic breakeven point) for the system is fourteen years. There are also significant operational benefits that do not have direct fiscal or staffing impacts, as discussed in the Body of this report.

Attachments

A - Excerpts from Business Case Study performed August 2015



Power System
Engineering, Inc.

Los Alamos Department of Public Utilities (DPU) Draft AMI Economic Study



Sarah Pink and Kyle Kopczyk
Power System Engineering, Inc.
www.powersystem.org

August 26, 2015

EXPERIENCED • INDEPENDENT • RESPECTED

Why is Los Alamos Interested in AMI?

	Stakeholder Benefits				
	Customer Service	Rates Impact	Power Quality	Reliability	Conservation
\$ Tangible benefits in model <i>(Economic benefits visible in PSE business case)</i>					
↑ Intangible benefits <i>(Not visible in the PSE business case)</i>					
Interest Areas					
Operations and labor efficiencies	\$ ↑	↑			
End of line voltage readings			↑		
Improved outage identification and restoration management				\$ ↑	
Web portal access to account	\$ ↑				↑
Time of use billing (PTR, CPP, others)	↑	↑			↑
Prepaid metering	↑				↑
Additional load control (future)					↑

Scenario Quick Comparison

Variable Component	Scenario 1	Scenario 2	Scenario 3
AMI Technology	Tower (Similar to Tantalus)	RF Mesh (Similar to L+G)	RF Mesh (Similar to L+G)
MDMS	Yes	Yes	Yes
# of AMI Meters/Modules Deployed	24,593	24,593	24,593
Deployment Time	1 Year	1 Year	1 Year
Meter Acc. Increase	1.9%	1.9%	1.9%
Assumed Meter Acc.	98%	98%	98%
Residential Disconnects	10%	10%	100%

AMI Scenario 2

Variable Component	Scenario 2
AMI Technology	RF Mesh (Similar to L+G)
MDMS	Yes
# of AMI Meters/Modules Deployed	24,593
Deployment Time	1 Year
Meter Acc. Increase	1.9%
Assumed Meter Acc.	98%
Residential Disconnects	10%

AMI Scenario 2: Costs/Benefits

15 Year Net Present Value (nearest \$100k) \$ 300,000
 Internal Rate of Return 11.0%
 Discounted Breakeven Year 14

Total Benefits

Benefit Category

Avoided Meter Replacement and Present Meter Reading System Costs
 Meter Accuracy Savings
 Reduction in Connects/Disconnects/Off-cycle Read Costs
 Meter Reading Savings - On-Cycle
 Water Loss Reduction
 High Bill and Estimate Call Savings & Works Comp Reduction
 Theft Protection
 Outage Management (No lights calls, crew optimization)
 Peak Time Rebate
 Cash flow - reduced short term interest

Benefits Total

	15 Yr PV	Benefit per Meter	% of Total Benefit
\$	1,636,000	\$ 66.51	30%
\$	1,407,000	\$ 57.19	26%
\$	1,133,000	\$ 46.08	21%
\$	447,000	\$ 18.16	8%
\$	337,000	\$ 13.69	6%
\$	248,000	\$ 10.10	5%
\$	189,000	\$ 7.68	3%
\$	62,000	\$ 2.51	1%
\$	0	-	0%
\$	0	-	0%
\$	5,458,000	\$ 221.93	100%

Total Capital Costs

Capital Cost Category

AMI Meters/Modules
 3rd Party Meter Installation Including Socket Repairs
 AMI Infrastructure
 Meter Data Management System
 AMI Software
 3rd Party Integration and Project Management
 Backhaul Communications Allocation
 Direct Load Control Devices
 Total Operating and Maintenance Cost

	15 Yr PV	CC Per Meter	% of Total CC
\$	2,439,000	\$ 99.17	53%
\$	1,056,000	\$ 42.93	23%
\$	784,000	\$ 31.89	17%
\$	123,000	\$ 4.98	3%
\$	78,000	\$ 3.19	2%
\$	98,000	\$ 3.99	2%
\$	7,000	\$ 0.30	0%
\$	0	-	0%
\$	4,585,000	\$ 186.44	100%

O&M Cost Category

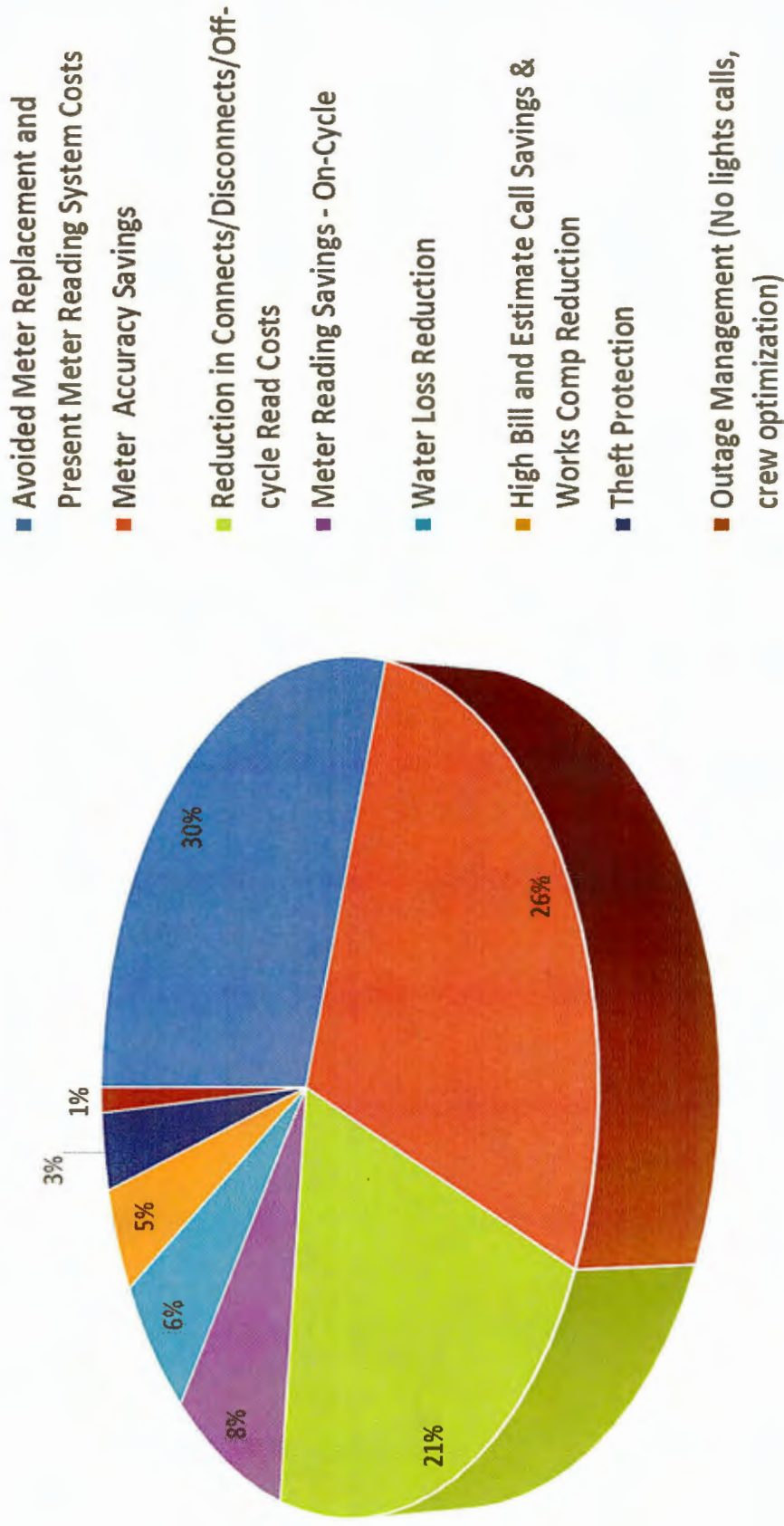
AMI Network Operations
 Recurring Communications Costs
 AMI Vendor Recurring Fees
 MDMS Vendor Recurring Fees
 Tower Lease Recurring Fees
 AMI Field Area Network FTE Costs

	O&M Cost	% of Total O&M Cost
\$	0	0%
\$	6,000	1%
\$	235,000	39%
\$	366,000	60%
\$	0	0%
\$	0	0%
\$	607,000	100%



AMI Scenario 2: Benefits

15 Year Benefits by Category



PSE Business Case Comments

- Other benefits available after or with AMI:
 - Pre-paid metering
 - Increased cash flow, can be useful for short term rentals, and habitual late payments
 - Disconnect collar and web presentment tool needed
 - Meter Data Management System (MDMS)
 - Validate, Estimate, and Edit (VEE)
 - Web Presentment or Customer Portal
 - Data Analytics (Line Loss Studies, Transformer Loading, Etc.)
 - Operational Maintenance (Blinks, Outages, Transformer Loading, Etc.)
 - Billing (Time Of Use, Peak Time Rebates, Etc.)
 - Web Portal
 - Can be in an MDM, but 3rd party vendors also do this well
 - Increased customer engagement
 - Display general outage information
 - Account usage updates, billing, and customer programs

PSE Business Case Comments

- Other benefits available after or with AMI:
 - Increased Safety for Meter Readers and Field Personnel
 - Enables Net Metering
 - Ability to add reverse usage for customer generation programs
 - Enhanced Customer Service
 - Better outage information
 - On-Demand meter readings
 - High-Bill complaint resolution or reduction (can be reduced further with web presentment)
 - High and low voltage complaint resolution
 - Move-in/Move-out
 - Consumption on inactive meters reduced
 - Water leak detect (if supported)
 - Gas pressure monitoring (if supported)



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 7.C
Index (Council Goals): BCC - N/A
Presenters: Bob Westervelt, Deputy Utilities Manager - Finance/Admin
Legislative File: 10314-18

Title

Department of Public Utilities FY2019 & FY2020 Budget Presentation

Recommended Action

None - discussion item only. Budget will be presented in March for approval.

Staff Recommendation

None - discussion item only. Budget will be presented in March for approval.

Body

Attached is the proposed budget for FY2019 and the projected budget for FY2020. The FY19 expenditure budget overall as presented is a reduction of 10% from the fiscal year 2018 budget, attributable primarily to low cost of power in the electric fund, low cost of gas in the gas fund, and completion or delay of certain projects that are not being re-budgeted. FY2020's projected expenditure budget overall represents a 4% increase over 2018, and a 15% increase over the proposed FY19 budget, due primarily to planned construction of the White Rock Wastewater Treatment Facility in that year.

Changes in each Utility sub fund are discussed below.

Note: this is a preliminary draft, some inputs are still being finalized and some numbers are likely to change between now and final presentation to the Board for approval in March. All changes will be noted when the Board considers the final budget for adoption in March.

Staffing changes

There are no staffing changes proposed in this budget. We continue to have one limited term FTE on the admin roster, funded by the County ERP project to partially backfill staff resources that will be dedicated to the project. That position is expected to expire when the ERP project is finished. The Electric Production budget continues to fund double fill of a Hydro Plant Maintenance Technician in anticipation of retirement of one of the existing staff in 2018. This double fill is utilizing an existing vacancy so does not result in an increased FTE count. There are no realignments contemplated nor are there any Union agreements scheduled for renewal.

Budget Highlights

Per County Budget Office guidance, salaries were budgeted "flat" except for the increments

included in the existing Union agreements. The ten-year capital plan is included in the agenda packet, as well as more detailed descriptions of the projects planned for FY19 and FY20.

Interdepartmental charges from the County (IDCs) are essentially flat in both years presented compared to FY18. Department admin costs decreased by \$352k, or 7% in FY19 and remain essentially at that level in FY20. The planned reconfiguration of the Customer Care Center, budgeted at \$250k in FY18, has not been re-budgeted, as funds will be available for carryover should the project not be completed in FY18. The remainder of the decrease is the result of several studies and initiatives that were budgeted in FY18 that will be completed in FY18 or will be carried over, so have not been re-budgeted in FY19 or FY20. Allocation of Admin costs are included in each utility's O&M, so will not be discussed separately below.

Electric Distribution

No rate increases are projected in FY19 for electric distribution. The ten-year O&M budget forecast includes essentially inflationary increases of 1.5% per year after FY19. The Los Alamos Sub Station (LASS) project is scheduled for completion in FY18, so no additional funding is included in this budget for that project. Projects in Electric Distribution consist of routine overhead and underground replacements as needed.

Electric Production

The O&M budget for Electric Production is \$1.5M lower than FY18, due primarily to continuing low purchased power costs. There is \$250k included each year for LAC's share of the COLA preparation for the Carbon Free Power Project, to establish budget authority should the County decide to continue participation in this phase of the project.

Gas

The NMMEA deal guarantees a \$0.274 discount, which is included in the budget for FY2018. Natural gas market prices remain low, and gas purchases are budgeted at \$3.05/MMBTU in FY19, and \$3.60/MMBTU in FY20 (before the NMMEA discount). There are no major O&M or projects initiatives scheduled for this budget period.

Water Production and Distribution

The capital plan for Water Production, like last year, includes non-potable projects that are funded through a partial grant/loan from the Water Trust Board (WTB). These projects will only occur if the WTB funding is realized. The capital plan also includes the LA Reservoir Road Stabilization project, funded primarily with FEMA funds. The County portion of the project, amounting to \$407,500, is being funded jointly by the DPU and the General County.

The O&M and capital budget for water production and distribution has been revised extensively to reflect the proposed 20-year plan presented to the Board at the November 2017 BPU meeting. Water sales appear to have stabilized more in line with the revised sales projections we adopted in last year's budget cycle. In accordance with the long-range plan, a 6.25%

increase in retail potable rates is budgeted in FY18. As shown in the ten-year plan, additional modest rate increases are projected through 2022, then essentially inflationary increases thereafter. While in previous drafts of the long-range plan additional increases in the wholesale water rate were projected, the current revision shows adequate cash flow with no additional wholesale rate increases, and previously scheduled increases have been deleted from the 10-year projection.

Wastewater Division

Several initiatives have been implemented to alleviate the financial challenges in the wastewater division associated with the need to construct a replacement treatment facility in White Rock. Through joint Board/Council action, an ordinance was adopted in FY18 allowing for the transfer of excess funds from the Gas fund to the Wastewater fund. A transfer of \$2.5M was used in February to pay down the existing balance of the debt on the LA Plant. In addition, the remaining balance can be refinanced at a lower rate, and potentially the term extended, further reducing debt service requirements in the fund. Staff is evaluating options and will make a final refunding recommendation within the next month or two, but for this budget refinancing for the current loan term of 20 years on the LA Plant debt, and financing of the new plant for 30 years is assumed. All other projects in both the treatment plants and the collection system have been postponed allowing staff and funding to be concentrated on a successful White Rock plant project. Other projects are scheduled to resume in the out years on the 10-year plan.

The financial position of the wastewater fund and several long-term scenarios were discussed with the Board in previous meetings, With the financing initiatives described and the judicious postponement of other large capital projects, the rate trajectory presented in the alternative selected by the Board for implementation appears adequate. As shown on the 10-year plan, this includes an 8% increase in FY19, 6.25% in FY20, and ratcheting downward to essentially inflationary increases by 2024.

Alternatives

N/A

Fiscal and Staff Impact

See above

Attachments

- A - FY 2019-20 Budget Briefing Package
- B - Engineering Budget presentation JA
- C - Electric Production Budget presentation SC
- D - Electric Distribution Budget presentation RDLT
- E - Water Production Budget presentation JR
- F - Water Distribution Budget presentation JR
- G - Gas Budget presentation JR
- H - Wastewater Treatment Budget presentation JR
- I - Wastewater Collection Budget presentation JR

**Los Alamos County Utilities Department
Fiscal Year 2019/20 Budget
Board Presentation 02-21-2018**

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Los Alamos County Utilities Department
Fiscal Year 2019 and 2020 Budgets
Summary of Expenditure Budget

	Actual FY2017	Jul-Dec Actual FY2018	Adopted Budget FY2018	Proposed Budget FY2019	Projected Budget FY2020
Electric Production	34,021,176	17,888,826	40,600,226	38,754,542	37,773,881
Electric Distribution	14,006,298	8,700,068	14,881,688	14,094,551	13,783,176
Less Interdivision Electric Sales	(5,581,935)	(5,823,259)	(6,980,612)	(7,248,574)	(6,947,734)
Total Electric Fund	42,445,539	20,765,635	48,501,302	45,600,519	44,609,323
Gas	5,520,240	1,859,001	5,462,942	4,512,178	5,029,556
Water Production	4,416,072	1,934,828	11,200,314	6,609,455	4,632,545
Water Distribution	6,241,623	2,286,814	5,039,246	5,144,212	5,361,967
Less Interdivision Water Sales	(2,767,536)	(1,482,380)	(2,650,500)	(2,829,409)	(2,985,026)
Total Water Fund	7,890,159	2,739,262	13,589,060	8,924,258	7,009,485
Wastewater	4,707,137	2,277,088	4,822,576	5,971,397	18,335,447
Total Expenditure Budget	60,563,074	27,640,987	72,375,880	65,008,351	74,983,811

Los Alamos County Department of Public Utilities
Fiscal Year 2019 and 2020
Budget Summary by Categories

	Actual FY2017	Jul-Dec Actual FY2018	Adopted Budget FY2018	Proposed Budget FY2019	Projected Budget FY2020
Expenditures by Fund:					
Electric	42,445,539	20,765,635	48,501,302	45,600,519	44,609,323
Gas	5,520,240	1,859,001	5,462,942	4,512,178	5,029,556
Water	7,890,159	2,739,262	13,589,060	8,924,258	7,009,485
Wastewater	4,707,137	2,277,088	4,822,576	5,971,397	18,335,447
	<u>60,563,074</u>	<u>27,640,987</u>	<u>72,375,880</u>	<u>65,008,351</u>	<u>74,983,811</u>

Expenditures by Type:					
Salaries	5,623,365	2,764,774	6,925,364	7,008,203	7,008,203
Benefits	3,682,377	1,812,155	2,652,404	2,694,862	2,829,013
Contractual Services	30,654,399	16,050,700	38,501,502	36,696,177	36,110,808
Other Services	1,609,615	726,145	1,796,371	1,759,329	1,749,468
Materials/Supplies	1,166,838	422,671	1,673,104	1,650,200	1,648,900
Interfund Charges	4,069,085	2,109,048	5,684,386	5,243,044	5,256,352
IDCs	2,593,038	1,680,688	2,768,398	2,769,118	2,754,098
Capital Outlay	6,555	102,628	367,140	318,700	323,000
Bank Charges	2,683	-	-	-	-
Misc. Other Charges	227,410	113,700	-	-	-
Profit Transfer	821,156	-	913,140	864,860	889,868
Debt Service	5,130,940	2,564,287	5,182,753	5,251,698	5,255,477
Capital	8,643,866	1,114,821	10,621,000	5,110,000	15,510,314
Admin. & Gen. Allocation	(3,668,253)	(1,820,630)	(4,709,682)	(4,357,840)	(4,351,691)
	<u>60,563,074</u>	<u>27,640,987</u>	<u>72,375,880</u>	<u>65,008,351</u>	<u>74,983,811</u>

FTE Summary:					
Regular (full & part time)	93.00	93.00	93.00	93.00	93.00
Casual, student & temp.	5.34	5.34	5.34	4.60	4.60
	<u>98.34</u>	<u>98.34</u>	<u>98.34</u>	<u>97.60</u>	<u>97.60</u>

FTE by Division:					
Electric Production	12.00	12.00	12.00	13.00	13.00
Electric Distribution	13.00	13.00	13.00	13.00	13.00
Gas	29.07	29.07	29.07	28.30	28.30
Water	9.25	9.25	9.25	9.50	9.50
Wastewater	9.00	9.00	9.00	9.50	9.50
Administrative & General	26.02	26.02	26.02	24.30	24.30
	<u>98.34</u>	<u>98.34</u>	<u>98.34</u>	<u>97.60</u>	<u>97.60</u>

Los Alamos County Utilities Department
Fiscal Year 2019 and 2020 Budgets
Summary of Expenditure Budget -- **ELECTRIC PRODUCTION**

	Actual FY2017	Jul-Dec Actual FY2018	Adopted Budget FY2018	Proposed Budget FY2019	Projected Budget FY2020
REVENUE					
Mwh Sales - LANL	456,460	266,188	542,688	510,377	519,916
Mwh Sales - LAC Distribution	115,799	57,412	125,530	121,969	123,371
Total Mwh Sales	572,260	323,600	668,218	632,346	643,287
Revenue per Mwh	\$ 50.45	\$ 55.21	\$ 54.07	\$ 56.09	\$ 53.64
DOE Revenues	\$ 23,290,633	\$ 12,041,733	\$ 29,152,767	\$ 28,221,178	\$ 27,560,161
Economy Sales	3,287,149	2,017,056	4,248,065	3,154,615	3,143,147
Interest on Reserves	40,591	34,041	130,000	96,191	88,855
Bond Federal Subsidy	31,639	16,992	33,984	33,984	33,984
TOTAL REVENUE	\$ 26,650,012	\$ 14,109,822	\$ 33,564,816	\$ 31,505,968	\$ 30,826,147
OPERATING EXPENSES					
El Vado Generation	\$ 447,163	\$ 148,116	\$ 620,427	\$ 476,807	\$ 458,082
Abiquiu Generation	294,949	112,757	403,881	483,551	399,174
Contract Administration	37,334	26,901	20,048	17,997	18,204
Load Control	1,576,674	671,599	1,822,030	1,601,620	1,336,365
Transmission - PNM	1,688,546	845,361	1,405,000	2,899,531	3,044,007
Transmission - Other	2,040,072	1,009,916	2,285,008	1,983,778	2,027,784
Purchased Power	11,698,497	6,595,665	14,614,373	12,331,458	12,900,634
Photovoltaic Array	157,163	22,042	117,000	30,000	30,000
Debt Service	2,498,743	1,253,984	2,536,071	2,774,417	2,776,773
Property Taxes	432,065	208,971	458,055	449,087	443,108
Insurance	114,844	83,750	120,000	120,000	120,000
San Juan Operations	8,123,247	4,221,292	11,213,148	11,066,525	10,381,834
Laramie River Operations	2,782,648	1,865,954	2,854,600	2,865,754	2,373,418
SMR Project	80,651	31,984	450,000	275,595	275,893
Non-Pool Expenses	207,987	33,191	-	-	-
Interdepartmental Charges	415,689	214,445	447,280	444,881	444,861
Administrative Allocation	609,177	343,470	558,305	628,541	608,745
TOTAL OPERATING EXPENSES	\$ 33,205,449	\$ 17,689,399	\$ 39,925,226	\$ 38,449,542	\$ 37,638,881
OPERATING INCOME (LOSS)	\$ (6,555,437)	\$ (3,579,577)	\$ (6,360,410)	\$ (6,943,574)	\$ (6,812,734)
CAPITAL EXPENDITURES					
Capital Expenditures	\$ 815,727	\$ 199,427	\$ 675,000	\$ 305,000	\$ 135,000
OTHER FINANCING Forecast					
Transfer from Distribution Fund	\$ 5,581,935	\$ 5,823,259	\$ 6,980,612	\$ 7,248,574	\$ 6,947,734
NET INCOME (LOSS)	\$ (1,789,229)	\$ 2,044,255	\$ (54,798)	\$ 0	\$ (0)
Cash & Investments					
Working Capital	592,011		(5,911,893)		
Resource Pool Checking			3,441,779		
Operations Reserve	4,399,143		4,338,880	5,341,127	5,177,978
Contingency Reserve			4,000,000	-	-
Total Unrestricted Cash & Investments	\$ 4,991,153		\$ 5,868,766	\$ 5,357,972	\$ 5,130,572
Restricted					
Bond Reserve & Debt Service	1,877,533		\$ 1,829,075	\$ 1,877,533	\$ 1,877,533
San Juan Decommissioning	4,911,606		\$ 4,871,014	\$ 5,288,406	\$ 5,476,806
San Juan Mine Reclamation	3,822,578		\$ 4,428,776	\$ 4,428,776	\$ 4,428,776
Laramie River Decommissioning	740,275		\$ 744,928	\$ 818,275	\$ 857,275
Bond Construction Fund	1,482,614		\$ 1,495,623		
Total Restricted	\$ 12,834,606		\$ 13,369,416	\$ 12,412,990	\$ 12,640,390
Total Cash & Investments	\$ 17,825,759		\$ 19,238,182	\$ 17,770,962	\$ 17,770,962

Los Alamos County Utilities Department
Fiscal Year 2019 and 2020 Budgets
Summary of Expenditure Budget -- **ELECTRIC DISTRIBUTION**

	Actual FY2017	Jul-Dec Actual FY2018	Adopted Budget FY2018	Proposed Budget FY2019	Projected Budget FY2020
REVENUE					
kWh Sales	115,799,390	57,430,990	125,496,000	121,939,000	123,371,000
Revenue per kWh	\$ 0.1188	\$ 0.1188	\$ 0.1221	\$ 0.1165	\$ 0.1151
Sales Revenue	\$ 13,757,854	\$ 6,822,906	\$ 15,319,172	\$ 14,203,145	\$ 14,203,145
Interest on Utility Reserves	131,438	57,944	(183,000)	0	0
Bond Federal Subsidy	63,254	33,971	67,942	67,942	67,942
Pole Rentals	22,262	22,262		53,601	53,601
Misc. Service Revenues	52,097	18,072		50,000	50,000
Revenue on Recoverable Work	243,091	54,671	150,000	150,000	150,000
TOTAL REVENUE	\$ 14,269,996	\$ 7,009,826	\$ 15,354,114	\$ 14,524,688	\$ 14,524,688
OPERATING EXPENSES					
Supervision, Misc Direct Admin	688,765	294,245	710,342	660,479	668,115
Substation Maintenance	24,838	5,286	36,663	36,237	36,614
Switching Station Maintenance	18,652	10,688	29,115	31,520	31,787
Overhead Maintenance	321,509	164,173	488,883	499,014	503,062
Underground Maintenance	310,381	174,005	375,882	391,173	394,662
Meter Maintenance	194,739	59,356	126,101	82,331	83,143
Interdepartmental Charges	428,969	226,232	583,503	638,550	638,550
Eng. Cust Svc. MR and Admin	595,067	324,532	852,774	753,554	737,817
In Lieu Taxes	548,895	233,361	558,229	529,609	526,476
Debt Service	1,248,750	618,388	1,255,148	1,271,957	1,253,438
Cost of Power	5,581,935	5,823,259	6,980,612	7,248,574	6,947,734
TOTAL OPERATING EXPENSES	\$ 9,962,501	\$ 7,933,525	\$ 11,997,252	\$ 12,142,999	\$ 11,821,399
OPERATING INCOME (LOSS)	\$ 4,307,495	\$ (923,699)	\$ 3,356,862	\$ 2,381,689	\$ 2,703,289
CAPITAL EXPENDITURES					
Capital Expenditures	\$ 3,449,116	\$ 766,543	\$ 2,233,371	\$ 1,340,817	\$ 1,351,042
OTHER FINANCING					
Bond/Grant proceeds	\$ -				
Profit Transfer to General Fund	(594,681)		(651,065)	(610,735)	(610,735)
Sale of Scrap/Obsolete Inventory	1,947				
BUDGETED NET INCOME (LOSS)	\$ 265,645	\$ (1,690,242)	\$ 472,426	\$ 430,137	\$ 741,512
Cash & Investments					
Working Capital	(5,365,102)		(12,367,016)	19,932	118,177
Capital Replacement	-		-	-	-
Operations Reserve	-		1,804,075	739,161	1,382,429
Contingency Reserve	-		1,200,000	-	-
Rate Stabilization Reserve	-		7,000,000	-	-
Total Unrestricted Cash & Investments	\$ (5,365,102)		\$ (2,362,941)	\$ 759,093	\$ 1,500,606
Restricted					
Bond Reserve & Debt Service	1,446,546		1,419,944	1,446,546	1,446,546
Bond Construction Fund	5,221,633		1,392,970		
Total Restricted	\$ 6,668,179		\$ 2,812,914	\$ 1,446,546	\$ 1,446,546
Total Cash & Investments	\$ 1,303,077		\$ 449,973	\$ 2,205,640	\$ 2,947,152

Los Alamos County Utilities Department
Fiscal Year 2019 and 2020 Budgets
Summary of Expenditure Budget -- **GAS DISTRIBUTION**

	Actual FY2017	Jul-Dec Actual FY2018	Adopted Budget FY2018	Proposed Budget FY2019	Projected Budget FY2020
REVENUE					
Therm Sales	7,649,471	2,539,586	8,455,275	7,650,000	7,650,000
Revenue per Therm	\$ 0.5848	\$ 0.7165	\$ 0.6199	\$ 0.7113	\$ 0.7813
Sales Revenue	\$ 4,473,084	\$ 1,819,620	\$ 5,241,503	\$ 5,441,654	\$ 5,977,154
Interest on Utility Reserves	203,885	103,042	82,000	30,496	54,995
Revenue on Recoverable Work	19,787	14,762	20,000	20,000	20,000
TOTAL REVENUE	\$ 4,696,756	\$ 1,937,424	\$ 5,343,503	\$ 5,492,150	\$ 6,052,149
OPERATING EXPENSES					
Supervision, Misc Direct Admin	238,774	147,724	256,975	265,698	269,356
Customer Service	121,902	62,944	63,910	63,015	63,843
Gas Distribution	148,537	140,049	222,566	270,143	274,792
Gas Meters	141,146	75,016	132,003	133,686	135,940
Gas Capital Project Inspection & Support	-	-	-	6,074	6,237
Interdepartmental Charges	285,035	134,225	366,631	349,581	349,581
Eng. Cust Svc. MR and Admin	604,255	315,527	718,310	620,187	633,703
In Lieu Taxes	205,362	81,760	202,705	216,418	227,970
Cost of Gas	2,296,116	883,333	2,537,766	2,333,250	2,754,000
TOTAL OPERATING EXPENSES	\$4,041,128	\$ 1,840,578	\$ 4,500,867	\$ 4,258,053	\$ 4,715,423
OPERATING INCOME (LOSS)	\$ 655,628	\$ 96,846	\$ 842,636	\$ 1,234,097	\$ 1,336,727
CAPITAL EXPENDITURES					
Capital Expenditures	\$ 1,252,637	\$ 18,423	\$ 700,000	\$ -	\$ 35,000
OTHER FINANCING					
Profit Transfer to General Fund	(226,475)		(262,075)	(254,125)	(279,133)
Transfer to WW (FY18 budget revision)		(2,500,000)			
BUDGETED NET INCOME (LOSS)	\$ (823,484)	\$ (2,421,577)	\$ (119,439)	\$ 979,972	\$ 1,022,594
Cash & Investments					
Capital Replacement	583,648		1,050,000	796,295	985,266
Operations Reserve	994,334		823,197	962,402	980,711
Contingency Reserve	50,000		50,000	253,750	257,556
Rate Stabilization Reserve	4,049,400		4,544,692		
Working Capital	0		(73,643)	2,025,468	2,836,975
Total Cash & Investments	\$ 5,677,382		\$ 6,394,246	\$ 4,037,915	\$ 5,060,509

Los Alamos County Utilities Department
Fiscal Year 2019 and 2020 Budgets
Summary of Expenditure Budget -- **WATER DISTRIBUTION**

	Actual FY2017	Jul-Dec Actual FY2018	Adopted Budget FY2018	Proposed Budget FY2019	Projected Budget FY2020
REVENUE					
Sales in Thousand of Gallons	755,656	430,900	775,000	775,000	775,000
Revenue per thousand gallons	\$ 5.7345	\$ 6.0663	\$ 6.3300	\$ 6.6588	\$ 6.9878
Sales Revenue	\$ 4,333,338	\$ 2,613,984	\$ 4,905,750	\$ 5,160,579	\$ 5,415,543
Interest on Utility Reserves	472	1,816	9,161	-	-
Revenue on Recoverable Work	22,389	5,824	30,450	15,000	15,000
Misc Service Revenues	26,404	5,171		15,000	15,000
TOTAL REVENUE	\$ 4,382,603	\$ 2,626,795	\$ 4,945,361	\$ 5,190,579	\$ 5,445,543
OPERATING EXPENSES					
Supervision, Misc Direct Admin	\$ 185,613	\$ 112,278	\$ 184,778	\$ 227,392	\$ 230,443
Hydrants	-	-	-	-	-
Water Distribution	303,360	192,933	439,830	416,904	423,176
Water Meters	531,314	132,130	627,708	693,060	704,816
Capital Project Inspections & Support	-	-	-	6,074	6,237
Interdepartmental Charges	251,649	143,304	330,744	338,477	338,477
Eng. Cust Svc. MR and Admin	416,010	216,288	805,686	632,896	673,791
Cost of Water	2,767,536	1,482,380	2,650,500	2,829,409	2,985,026
TOTAL OPERATING EXPENSES	\$ 4,455,481	\$ 2,279,312	\$ 5,039,246	\$ 5,144,212	\$ 5,361,967
OPERATING INCOME (LOSS)	\$ (72,878)	\$ 347,483	\$ (93,885)	\$ 46,367	\$ 83,576
CAPITAL EXPENDITURES					
Capital Expenditures	\$ 1,786,142	\$ 7,502	\$ -	\$ -	\$ -
OTHER FINANCING					
Sale of Scrap and Obsolete Inventory	9,006	6,058			
BUDGETED NET INCOME (LOSS)	\$ (1,850,014)	\$ 346,039	\$ (93,885)	\$ 46,367	\$ 83,576
Cash & Investments					
Capital Replacement	-		(554,077)	-	-
Operations Reserve	-		2,278,345	-	-
Contingency Reserve	-		40,000	-	-
Working Capital	(1,283,827)		(1,333,491)	(1,331,345)	(1,247,769)
Total Cash & Investments	\$ (1,283,827)		\$ 430,776	(1,331,345)	\$ (1,247,769)

Los Alamos County Utilities Department
Fiscal Year 2019 and 2020 Budgets
Summary of Expenditure Budget -- **WATER PRODUCTION**

	Actual FY2017	Jul-Dec Actual FY2018	Adopted Budget FY2018	Proposed Budget FY2019	Projected Budget FY2020
REVENUE					
Potable 1000-gallon production	1,035,301	583,968	1,150,000	1,150,000	1,150,000
Non-potable 1000-gallon production	63,702	47,430	86,400	90,400	90,400
Revenue per 1000 gallons	\$ 3.4572	\$ 3.5079	\$ 3.6500	\$ 3.3840	\$ 3.3840
Potable Sales Revenue	\$ 3,579,231	\$ 2,048,522	\$ 4,197,500	\$ 4,197,500	\$ 4,197,500
Repayment of InterUtility Loan	187,569	93,784	187,569	187,569	187,569
Interest on Utility Reserves	332,598	186,555	109,233	79,426	71,364
Bond Federal Subsidy	25,673	13,788	27,576	27,576	27,576
Non Potable Revenue	47,043	47,412	216,000	175,663	175,663
TOTAL REVENUE	\$ 4,172,114	\$ 2,390,061	\$ 4,737,878	\$ 4,667,734	\$ 4,659,672
OPERATING EXPENSES					
Supervision, Misc Direct Admin	\$ 729,505	\$ 518,795	\$ 805,445	\$ 676,041	\$ 676,063
Pumping Power	560,399	251,608	800,000	810,500	821,157
Wells	155,664	125,645	135,631	129,025	131,661
Booster Pump Stations	79,395	41,584	123,587	128,025	130,261
Treatment	29,474	21,279	104,271	152,354	155,151
Storage Tanks	7,378	927	19,385	41,512	42,131
Transmission Lines	105,016	60,360	223,066	208,432	212,480
Capital Project Inspection & Support	-	-	-	13,671	14,010
Non Potable System	458,883	127,986	326,132	290,169	270,899
Ski Hill	14,935	876	66,885	67,253	68,558
Interdepartmental Charges	263,893	138,962	341,062	319,997	319,997
Eng. Cust Svc. MR and Admin	539,018	305,281	678,114	684,044	671,804
State Water Tax	35,173	18,621	45,000	45,000	45,000
Debt Service	232,053	116,284	235,735	238,433	258,373
TOTAL OPERATING EXPENSES	\$ 3,210,786	\$ 1,728,206	\$ 3,904,314	\$ 3,804,455	\$ 3,817,545
OPERATING INCOME (LOSS)	\$ 961,329	\$ 661,855	\$ 833,564	\$ 863,278	\$ 842,127
CAPITAL EXPENDITURES					
Capital Expenditures	\$ 1,205,286	\$ 206,622	\$ 7,296,000	\$ 2,805,000	\$ 815,000
OTHER FINANCING					
Grants/Loan Proceeds	\$ 415,506	\$ 58,847	\$ 1,271,000		\$ 468,000
County/External Reimbursement	-		2,000,000		
Sale of scrap					
BUDGETED NET INCOME (LOSS)	\$ 171,549	\$ 514,080	\$ (3,191,436)	\$ (1,941,722)	\$ 495,127
Cash & Investments					
Working Capital	\$ 3,988,376		\$ (3,964,741)	\$ 1,054,745	\$ 1,561,204
Operations Reserve	\$ 1,842,562		\$ 1,817,322	\$ 1,751,671	\$ 1,747,616
Contingency Reserve	\$ 750,000		\$ 125,000	\$ 64,566	\$ 375,875
Retirement/Reclamation Reserve			\$ 200,000	\$ -	\$ -
Capital Replacement	\$4,000,000		\$ 8,000,000	2,563,880	2,219,168
Total Unrestricted Cash & Investments	\$ 10,580,938		\$ 6,177,582	\$ 5,434,862	\$ 5,903,864
Restricted					
Bond Debt Service & Reserve Fund	\$ 206,176		\$ 192,838	\$ 219,094	\$ 245,220
Total Restricted	\$ 206,176		\$ 192,838	\$ 219,094	\$ 245,220
Total Cash & Investments	\$ 10,787,114		\$ 6,370,420	5,653,957	\$ 6,149,084

Los Alamos County Utilities Department
Fiscal Year 2019 and 2020 Budgets
Summary of Expenditure Budget-- **WASTE WATER TREATMENT COLLECTION**

	Actual FY2017	Jul-Dec Actual FY2018	Adopted Budget FY2018	Proposed Budget FY2019	Projected Budget FY2020
REVENUE					
Thousand of Gallons Processed	426,899	226,383	430,000	430,000	430,000
Sales Revenue	\$ 4,913,866	\$ 2,604,303	\$ 5,269,745	\$ 5,582,581	\$ 5,875,734
Interest on Utility Reserves	41,799	29,775	13,516	35,667	26,838
Revenue on Recoverable Work	410	166	-	-	-
TOTAL REVENUE	\$ 4,956,075	\$ 2,634,244	\$ 5,283,261	\$ 5,618,248	\$ 5,902,572
OPERATING EXPENSES					
Supervision, Misc Direct Admin	\$ 265,879	\$ 233,727	\$ 230,375	\$ 282,862	\$ 286,534
Wastewater Collection	289,332	275,913	367,602	341,104	346,674
Lift Stations	220,637	72,870	275,214	139,160	140,618
Collection Capital Proj Inspection & Support	-	-	-	4,074	4,137
Wastewater Treatment	1,206,636	672,725	1,318,100	1,866,805	1,712,881
Interdepartmental Charges	411,402	208,291	590,289	593,177	593,177
Eng. Cust Svc. MR and Admin	499,694	236,882	835,197	777,322	764,534
Debt Service	1,151,394	575,631	1,155,799	966,892	966,893
TOTAL OPERATING EXPENSES	\$ 4,044,975	\$ 2,276,039	\$ 4,772,576	\$ 4,971,397	\$ 4,815,447
OPERATING INCOME (LOSS)	\$ 911,100	\$ 358,205	\$ 510,685	\$ 646,851	\$ 1,087,125
CAPITAL EXPENDITURES					
Capital Expenditures	\$ 662,162	\$ 1,049	\$ 50,000	\$ 1,000,000	\$ 13,520,000
OTHER FINANCING					
Grant/Loan Proceeds					\$ 14,000,000
Transfer from Gas Dist (FY18 budget revision)		2,500,000			
BUDGETED NET INCOME (LOSS)	\$ 248,938	\$ 2,857,156	\$ 460,685	\$ (353,149)	\$ 1,567,125
Cash & Investments					
Capital Replacement	-		\$ (2,063,571)	\$ 305,668	\$ -
Operations Reserve			\$ 1,625,142	\$ 1,765,076	\$ -
Contingency Reserve			\$ 75,000	\$ -	\$ -
Working Capital	\$ (611,144)		\$ (567,590)	\$ (74,352)	\$ 3,563,517
Loan from Gas Division			\$ 1,450,000		
Total Unrestricted Cash & Investments	<u>\$ (611,144)</u>		<u>\$ 518,980</u>	<u>\$ 1,996,392</u>	<u>\$ 3,563,517</u>
Restricted Loan Reserves	\$ 1,682,644		\$ 1,362,985	\$ 1,682,644	\$ 1,682,644
Total Cash & Investments	<u>\$ 1,071,500</u>		<u>1,881,965</u>	<u>3,679,036</u>	<u>5,246,161</u>

Los Alamos County Utilities Department
Fiscal Year 2019 and 2020 Budgets
Summary of Expenditure Budget - **ADMIN**

	Actual FY2017	Jul-Dec Actual FY2018	Adopted Budget FY2018	Proposed Budget FY2019	Projected Budget FY2020
Meter Reading	354,787	196,453	352,536	339,248	343,900
Customer Service	552,714	279,269	840,167	605,756	613,108
Engineering	1,489,100	678,467	1,530,874	1,479,069	1,474,116
Electric Production	170,724	73,948	148,643	167,788	154,691
All Except EP	309,517	146,037	229,305	213,550	216,213
All Divisions	526,997	281,675	200,238	174,928	177,235
Electric Distribution	42,806	20,635	75,267	88,331	89,045
Gas Distribution	74,379	17,221	181,422	187,916	189,795
Water Distribution	38,290	14,601	270,909	206,810	208,641
Wastewater Collection & Treatmer	141,861	32,724	186,616	191,903	194,138
Water Production	184,526	91,626	238,473	247,843	244,358
Administration	458,407	230,706	752,285	678,443	681,991
Electric Production	25,496	18,216	84,121	60,709	61,014
All Except EP	10,162	-	10,000	-	-
All Divisions	420,403	212,490	508,164	467,734	470,978
Electric Distribution	2,346	-	-	-	-
Water Production	-	-	150,000	150,000	150,000
Finance	606,656	328,123	974,152	985,812	992,470
Electric Production	54,985	14,559	77,469	107,436	108,130
All Except EP	2,700	-	58,000	58,000	58,000
All Divisions	548,971	313,564	738,683	770,376	776,339
Electric Distribution	-	-	50,000	-	-
Gas Distribution	-	-	-	-	-
Water Distribution	-	-	50,000	-	50,000
Wastewater Collection & Treatmer	-	-	-	-	-
Management Audit	-	-	-	50,000	-
Public Information	206,589	107,612	259,668	269,512	246,106
Electric Production	-	563	-	-	-
All Except EP	179,361	82,922	173,157	201,803	179,347
All Divisions	-	4,093	-	-	-
Electric Distribution	499	4,132	51,850	26,184	18,484
Gas Distribution	13,075	13,488	17,906	15,200	30,300
Water Distribution	13,203	1,537	13,155	21,825	14,575
Wastewater Collection & Treatmer	450	502	1,800	2,800	1,700
Water Production	-	376	1,800	1,700	1,700
Total Administrative Division	3,668,253	1,820,630	4,709,682	4,357,840	4,351,691

LOS ALAMOS DEPARTMENT OF PUBLIC UTILITIES
CASH & INVESTMENT BUDGET

	FY2017 ACTUAL	FY2019 PROPOSED BUDGET	FY2020 PROJECTED BUDGET
EP Cash & Investments - UNRESTRICTED	\$ 4,991,153	\$ 5,357,972	\$ 5,130,572
EP Cash & Investments - RESTRICTED	\$ 12,834,606	\$ 12,412,990	\$ 12,640,390
EP Cash & Investments - TOTAL	<u>\$ 17,825,759</u>	<u>\$ 17,770,962</u>	<u>\$ 17,770,962</u>
ED Cash & Investments - UNRESTRICTED	\$ (5,365,102)	\$ 759,093	\$ 1,500,606
ED Cash & Investments - RESTRICTED	\$ 6,668,179	\$ 1,446,546	\$ 1,446,546
ED Cash & Investments - TOTAL	<u>\$ 1,303,077</u>	<u>\$ 2,205,639</u>	<u>\$ 2,947,152</u>
GAS Cash & Investments - UNRESTRICTED	\$ 5,677,382	\$ 4,037,915	\$ 5,060,509
GAS Cash & Investments - RESTRICTED	\$ -	\$ -	\$ -
GAS Cash & Investments - TOTAL	<u>\$ 5,677,382</u>	<u>\$ 4,037,915</u>	<u>\$ 5,060,509</u>
DW Cash & Investments - UNRESTRICTED	\$ (1,283,827)	\$ (1,331,345)	\$ (1,247,769)
DW Cash & Investments - RESTRICTED	\$ -	\$ -	\$ -
DW Cash & Investments - TOTAL	<u>\$ (1,283,827)</u>	<u>\$ (1,331,345)</u>	<u>\$ (1,247,769)</u>
WP Cash & Investments - UNRESTRICTED	\$ 10,580,938	\$ 5,434,862	\$ 5,903,864
WP Cash & Investments - RESTRICTED	\$ 206,176	\$ 219,094	\$ 245,220
WP Cash & Investments - TOTAL	<u>\$ 10,787,114</u>	<u>\$ 5,653,957</u>	<u>\$ 6,149,084</u>
WW Cash & Investments - UNRESTRICTED	\$ (611,144)	\$ 1,996,392	\$ 3,563,517
WW Cash & Investments - RESTRICTED	\$ 1,682,644	\$ 1,682,644	\$ 1,682,644
WW Cash & Investments - TOTAL	<u>\$ 1,071,500</u>	<u>\$ 3,679,036</u>	<u>\$ 5,246,161</u>
DPU TOTAL Cash & Investments - UNRESTRICTED	13,989,400	16,254,889	19,911,298
ED Cash & Investments - RESTRICTED	21,391,605	15,761,274	16,014,800
ED Cash & Investments - TOTAL	<u>35,381,006</u>	<u>32,016,163</u>	<u>35,926,098</u>

Los Alamos County Department of Public Utilities
Fiscal Years 2019-2028
10-Year Capital Plan

FY19 (1 July 2018 - 30 June 2019)		Budget
ELECTRIC PRODUCTION		305,000
Electric SCADA Server Consolidation		120,000
Electric SCADA Operating System Back-up		50,000
Back-up Power Operation Center HVAC Upgrades		60,000
Abiquiu & El Vado Transformer Oil and Bushings		75,000
ELECTRIC DISTRIBUTION		1,340,817
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
Overhead System Replacement (polex, xarms, transformers)		400,000
County Labor and Benefits		340,817
GAS DISTRIBUTION		0
WATER DISTRIBUTION		0
WATER PRODUCTION		2,805,000
LA Reservoir Road Stabilization (\$1,222,500 FEMA / \$407,500 LAC Match)		1,630,000
OW2 Construction - Well House & Equipment		800,000
PW5 MCC Replacement - Construction		275,000
Auto Valves 10 & 11 R&R		100,000
WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL		1,000,000
SEWER COLLECTION		0
WASTEWATER TREATMENT		1,000,000
WR WWTP Replacement Project - Design		1,000,000

Los Alamos County Department of Public Utilities
Fiscal Years 2019-2028
10-Year Capital Plan

FY20 (1 July 2019 - 30 June 2020)		Budget
ELECTRIC PRODUCTION		135,000
Update Energy & Water Conservation Plan		35,000
Electric SCADA Upgrades (Modems, Switches & RTUS)		100,000
ELECTRIC DISTRIBUTION		1,351,042
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
Overhead System Replacement (poles, arms, transformers)		400,000
Townsite Circuit 15, 3 PHASE		
White Rock Circuit 1, 3 PHASE		
County Labor and Benefits		351,042
GAS DISTRIBUTION		35,000
Update Energy & Water Conservation Plan		35,000
WATER DISTRIBUTION		0
WATER PRODUCTION		815,000
Update Energy & Water Conservation Plan		35,000
Design Project (G12 Tank, BS's, etc.) (NP - WTB)		530,000
Minor Diamond Drive Connections (NP - WTB)		250,000
WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL		13,520,000
SEWER COLLECTION		0
WASTEWATER TREATMENT		13,520,000
WR WWTP Replacement Project - Construction		13,000,000
WR WWTP Replacement Project - Construction Admin/Project Mgt		520,000

Los Alamos County Department of Public Utilities
Fiscal Years 2019-2028
10-Year Capital Plan

FY21 (1 July 2020 - 30 June 2021)		Budget
ELECTRIC PRODUCTION		0
ELECTRIC DISTRIBUTION		1,050,000
Los Alamos URD Replacement (cables, jboxes, pedestals)		300,000
White Rock URD Replacement (cables, jboxes, pedestals)		300,000
White Rock GWS & ED Facility		50,000
Overhead System Replacement (polex, xarms, transformers)		400,000
Townsite Circuit 13, 3 PHASE		
White Rock Circuit2, 3 PHASE		
GAS DISTRIBUTION		50,000
GWS/GA Facilities at WR WWTP		50,000
WATER DISTRIBUTION		50,000
GWS/DW Facilities at WR WWTP		50,000
WATER PRODUCTION		750,000
2nd Group 12 Tank (NP - WTB)		750,000
WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL		50,000
SEWER COLLECTION		50,000
GWS/WC Facilities at WR WWTP		50,000
WASTEWATER TREATMENT		0

Los Alamos County Department of Public Utilities
Fiscal Years 2019-2028
10-Year Capital Plan

FY22 (1 July 2021 - 30 June 2022)		Budget
ELECTRIC PRODUCTION		0
ELECTRIC DISTRIBUTION		1,200,000
Los Alamos URD Replacement (cables, jboxes, pedestals)		400,000
White Rock URD Replacement (cables, jboxes, pedestals)		400,000
Overhead System Replacement (poles, xarms, transformers)		400,000
Townsite Circuit 16, 3 PHASE		
White Rock Circuit1, 1 PHASE		
GAS DISTRIBUTION		281,000
White Rock Key Steel Valve Project Phase 1		281,000
WATER DISTRIBUTION		1,075,000
North Mesa Distribution Upgrades		400,000
Barranca Tank 2 Repaint		675,000
WATER PRODUCTION		0
WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL		844,000
SEWER COLLECTION		844,000
Laguna Sewer Canyon Drop Replacement		844,000
WASTEWATER TREATMENT		0

Los Alamos County Department of Public Utilities
Fiscal Years 2019-2028
10-Year Capital Plan

FY23 (1 July 2022 - 30 June 2023)		Budget
ELECTRIC PRODUCTION		0
ELECTRIC DISTRIBUTION		1,200,000
Los Alamos URD Replacement (cables, jboxes, pedestals)		400,000
White Rock URD Replacement (cables, jboxes, pedestals)		400,000
Overhead System Replacement (poles, xarms, transformers)		400,000
Townsite Ski Hill Circuit, 3 PHASE		
White Rock Circuit2, 1 PHASE		
GAS DISTRIBUTION		290,000
White Rock Key Steel Valve Project Phase 2		290,000
WATER DISTRIBUTION		870,000
Aspen School Area Pipeline Phase 1		870,000
WATER PRODUCTION		825,000
Guaje Pines, North Mesa, Diamond Connections (NP - WTB)		825,000
WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL		4,528,000
SEWER COLLECTION		348,000
Aspen School Area Sewerline R&R - Phase 1		174,000
Loma Vista Sewer Lift Station Rehabilitation		174,000
WASTEWATER TREATMENT		4,180,000
LA WWTP 13-Year Upgrade - Construction		3,500,000
LA WWTP 13-Year Upgrade - Construction Admin/Project Mgt		100,000
LA WWTP Non-Potable Pressure Line		580,000

Los Alamos County Department of Public Utilities
Fiscal Years 2019-2028
10-Year Capital Plan

FY24 (1 July 2023 - 30 June 2024)		Budget
ELECTRIC PRODUCTION		0
ELECTRIC DISTRIBUTION		1,200,000
Los Alamos URD Replacement (cables, jboxes, pedestals)		400,000
White Rock URD Replacement (cables, jboxes, pedestals)		400,000
Overhead System Replacement (poles, xarms, transformers)		400,000
Townsite Circuit 15, 1 PHASE		
White Rock Circuit 1, Wire 3 PHASE		
GAS DISTRIBUTION		299,000
White Rock Key Steel Valve Project Phase 2		299,000
WATER DISTRIBUTION		896,000
Aspen School Area Pipeline Phase 2		896,000
WATER PRODUCTION		2,494,000
Townsite 14" Pipeline R&R - Phase 1		1,194,000
Bayo BS & Tank Upgrades (NP - WTB)		1,300,000
WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL		537,000
SEWER COLLECTION		537,000
Aspen School Area Sewerline R&R - Phase 2		179,000
Paseo Penasco Sewer Lift Station Rehabilitation		179,000
Arkansas Area Backyard Sewer Mains & Services R&R		179,000
WASTEWATER TREATMENT		0

Los Alamos County Department of Public Utilities
Fiscal Years 2019-2028
10-Year Capital Plan

FY25 (1 July 2024 - 30 June 2025)		Budget
ELECTRIC PRODUCTION		0
ELECTRIC DISTRIBUTION		1,200,000
Los Alamos URD Replacement (cables, jboxes, pedestals)		400,000
White Rock URD Replacement (cables, jboxes, pedestals)		400,000
Overhead System Replacement (polex, xarms, transformers)		400,000
Townsite Circuit 13, 1 PHASE		
White Rock Circuit2, Wire 3 PHASE		
GAS DISTRIBUTION		307,000
Pipeline Repair & Replacement / Equipment		307,000
WATER DISTRIBUTION		922,000
Aspen School Area Pipeline Phase 3		922,000
WATER PRODUCTION		2,152,000
Townsite 14" Pipeline R&R - Phase 2		1,230,000
Rover & Pinon Park NP Pipeline Connections (NP - WTB)		922,000
WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL		678,000
SEWER COLLECTION		678,000
Aspen School Area Sewerline R&R - Phase 3		185,000
El Gancho Sewer Lift Station Rehabilitation		185,000
North Community Backyard Sewer Mains & Services R&R - Phase 2		308,000
WASTEWATER TREATMENT		0

Los Alamos County Department of Public Utilities
Fiscal Years 2019-2028
10-Year Capital Plan

FY26 (1 July 2025 - 30 June 2026)		Budget
ELECTRIC PRODUCTION		0
ELECTRIC DISTRIBUTION		1,200,000
Los Alamos URD Replacement (cables, jboxes, pedestals)		400,000
White Rock URD Replacement (cables, jboxes, pedestals)		400,000
Overhead System Replacement (poles, xarms, transformers)		400,000
Townsite Circuit 16, 1 PHASE		
White Rock Circuit1, Wire 1 PHASE		
GAS DISTRIBUTION		317,000
Pipeline Repair & Replacement / Equipment		317,000
WATER DISTRIBUTION		823,000
Fairway 47th to West Area Pipeline		633,000
PRV Replacements - 2 Each		190,000
WATER PRODUCTION		1,900,000
Townsite 14" Pipeline R&R - Phase 3		1,267,000
Barranca Mesa NP Pipeline Connections (NP - WTB)		633,000
WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL		988,000
SEWER COLLECTION		671,000
Old Pueblo Sewer Canyon Drop Replacement		380,000
41st/45th/46th/47th Sewerline R&R {PW-WA 7}		101,000
Ridge Park Sewer Lift Station Rehabilitation		190,000
WASTEWATER TREATMENT		317,000
Equipment / Vehicle		317,000

Los Alamos County Department of Public Utilities
Fiscal Years 2019-2028
10-Year Capital Plan

FY27 (1 July 2026 - 30 June 2027)		Budget
ELECTRIC PRODUCTION		0
ELECTRIC DISTRIBUTION		1,200,000
Los Alamos URD Replacement (cables, jboxes, pedestals)		400,000
White Rock URD Replacement (cables, jboxes, pedestals)		400,000
Overhead System Replacement (polex, xarms, transformers)		400,000
Townsite Circuit 16, 1 PHASE		
White Rock Circuit1, Wire 1 PHASE		
GAS DISTRIBUTION		326,000
Pipeline Repair & Replacement / Equipment		326,000
WATER DISTRIBUTION		1,174,000
Denver Steel Area East Portion Pipeline		1,174,000
WATER PRODUCTION		2,512,000
West Pajarito Road Pipeline R&R - Phase 1		1,305,000
Bayo BS Winter Storage Facility (NP - WTB)		1,207,000
WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL		854,000
SEWER COLLECTION		854,000
Denver Steel Area East Portion Sewerline R&R {PW-WA 5}		104,000
Airport Canyon Sewer Canyon Drop Replacement		750,000
WASTEWATER TREATMENT		0

Los Alamos County Department of Public Utilities
Fiscal Years 2019-2028
10-Year Capital Plan

FY28 (1 July 2027 - 30 June 2028)		Budget
ELECTRIC PRODUCTION		0
ELECTRIC DISTRIBUTION		1,200,000
Los Alamos URD Replacement (cables, jboxes, pedestals)		400,000
White Rock URD Replacement (cables, jboxes, pedestals)		400,000
Overhead System Replacement (poles, xarms, transformers)		400,000
Townsite Circuit 16, 1 PHASE		
White Rock Circuit 1, Wire 1 PHASE		
GAS DISTRIBUTION		250,000
Pipeline Repair & Replacement / Equipment		250,000
WATER DISTRIBUTION		1,041,000
Denver Steel Area West Portion Pipeline		739,000
PRV Replacement - 3 Each		302,000
WATER PRODUCTION		1,680,000
West Pajarito Road Pipeline R&R - Phase 2		1,344,000
SCADA Upgrades (NP - WTB)		336,000
WASTEWATER TREATMENT AND SEWER COLLECTION TOTAL		512,000
SEWER COLLECTION		512,000
Denver Steel Area West Portion Sewerline R&R		108,000
Ponderosa Sewer Lift Station Rehabilitation		202,000
Potrillo Sewer Lift Station Rehabilitation		202,000
WASTEWATER TREATMENT		0

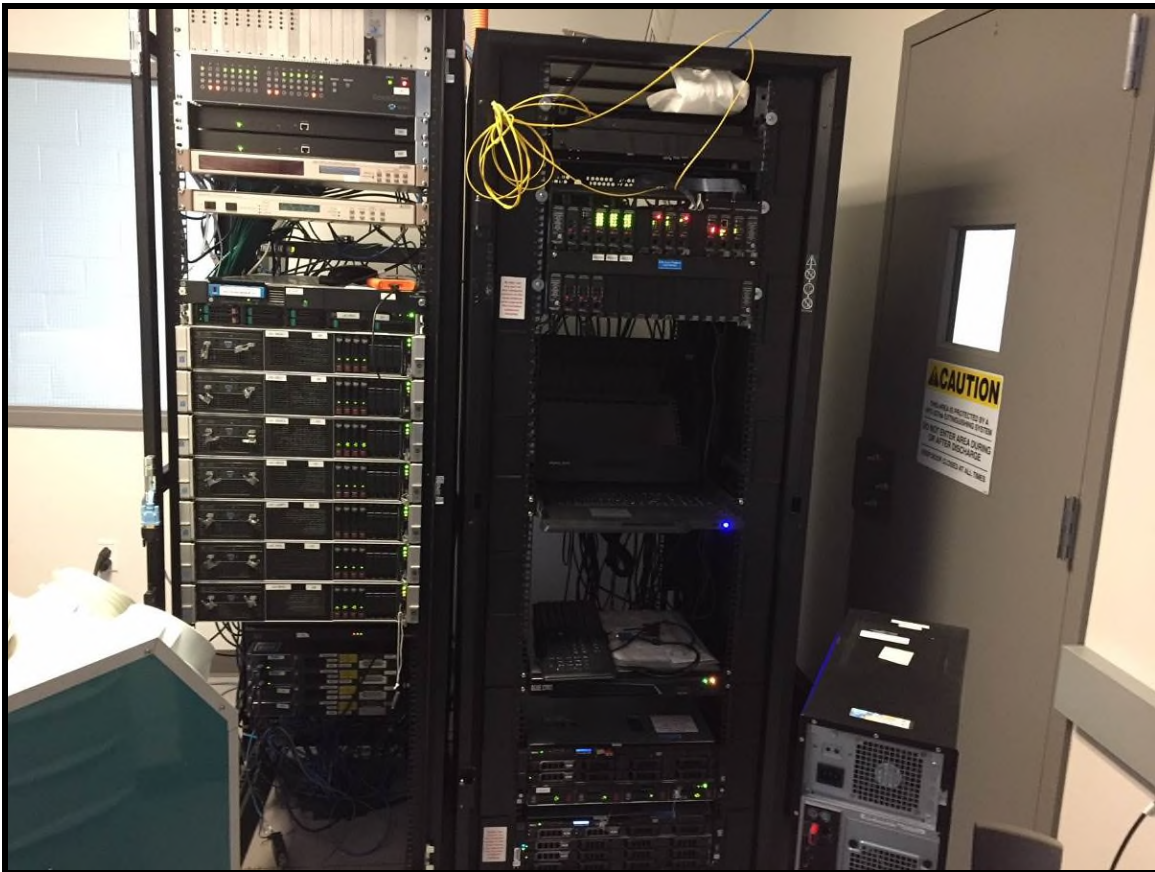
ELECTRIC PRODUCTION

FY19 & FY20: Electric SCADA

Project Scope: A number of components on the electric SCADA system are at the end of their useful life and replacement parts are becoming difficult to acquire. Over the next two years a number of upgrades to the systems are planned to maintain a reliable operation.

Budget:	FY19 Operating System Back-up	\$ 50,000
	FY19 Server Consolidation	\$120,000
	FY20 Modems, Switches & RTUs	\$100,000

Schedule: Spring 2019 through spring 2020



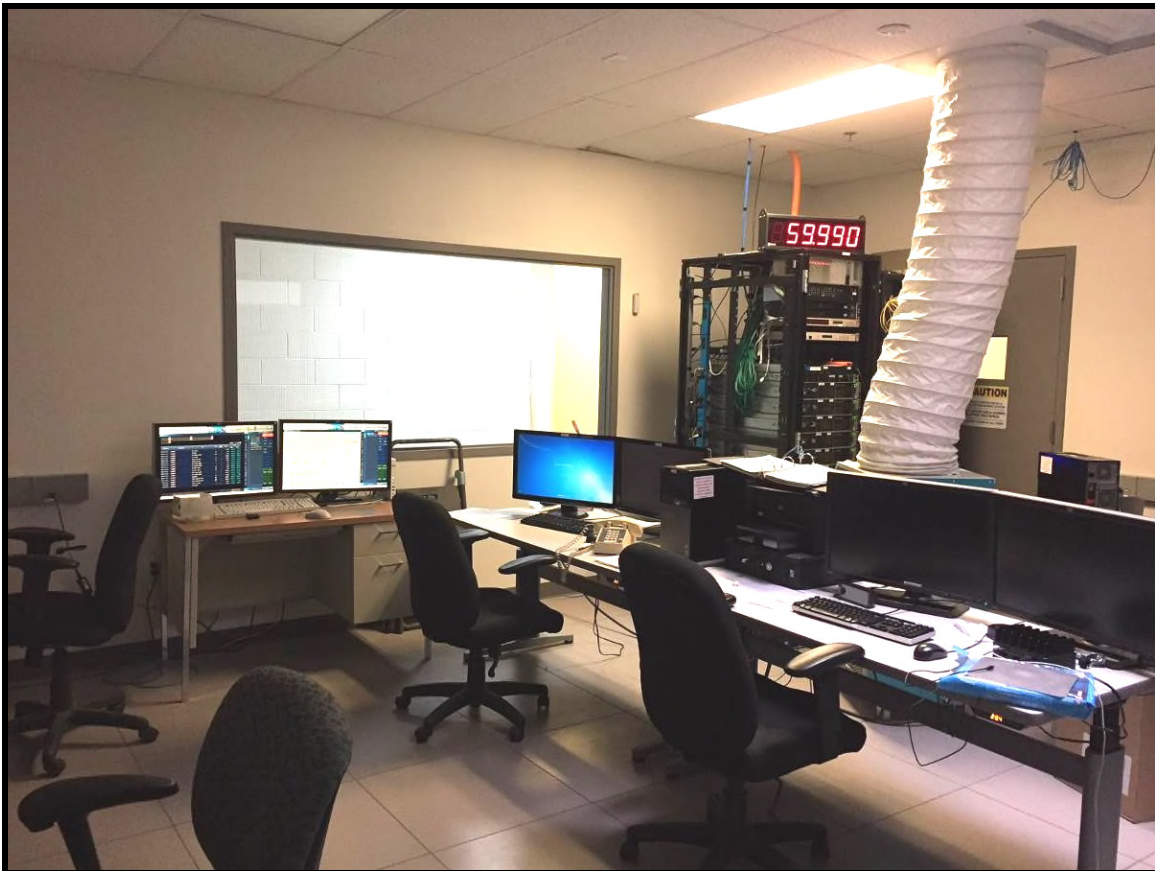
ELECTRIC PRODUCTION

FY19: Back-up Operations Center HVAC

Project Scope: Recent cyber security regulations require the water and electric SCADA master stations to be in separate rooms. The electric SCADA system has been relocated into a room which is not capable of cooling the room with the large amount of heat generated by the SCADA servers and electronics. An independent HVAC system will be installed in the electric SCADA server room.

Budget: \$ 60,000

Schedule: Summer 2018



ELECTRIC PRODUCTION

FY19: Abiquiu and El Vado Transformer Oil & Bushings

Project Scope: Bushings on the main transformer in El Vado and Abiquiu show evidence of oil leakage around the bushing level gauge. The condition of the bushings will be further investigated. The transformer insulation in El Vado is in question due to test results of the transformer insulating oil. Replacement of bushings and the insulating oil and filter will prolong reliable operation of the transformer.

Budget: \$ 75,000

Schedule: Winter 2018



ELECTRIC DISTRIBUTION

FY19: Overhead System Replacement

Project Scope: Many components of the utilities' overhead infrastructure operate near or past their useful plant life; greater than 50 years. The department's Asset Management Program (AMP) prioritizes O&M projects on (a) root cause analysis after power outages, (b) quarterly line patrols, and (c) year-end assessments. The O&M program includes: replacement of power poles, cross-arms, and revamps (wire & transformer upgrades). Priority is placed on the three phase backbone and areas affecting the highest number of consumers.

- | | |
|----------------------------|------------|
| 1. White Rock service area | \$200,000. |
| 2. Los Alamos service area | \$200,000. |

Budget: \$ 400,000
Schedule: Year round design and construction



ELECTRIC DISTRIBUTION

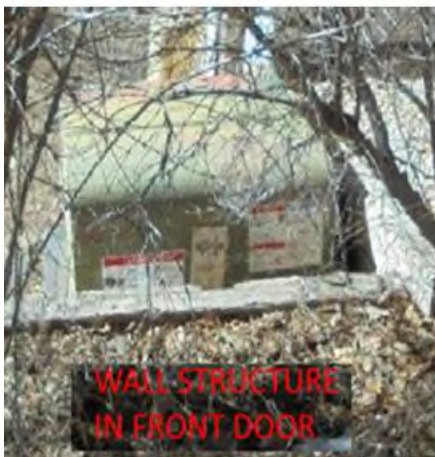
FY19: URD (UG residential distribution) Replacements

Project Scope: The underground system contains 1970s infrastructure which was direct-buried and in direct contact with the earth. Portions or segments of the underground system which have experienced 3 or more failures are targeted for replacement because they will fail again. Old and obsolete live-front transformers are routinely replaced due to safety and arc-flash concerns. New loop segments are designed for radial power lines which serve large amounts of customers.

- | | |
|---|------------|
| 1. Los Alamos town site area after three failure replacements | \$300,000. |
| 2. White Rock area after three failure replacements | \$300,000. |

Budget: \$ 600,000

Schedule: Year round design and construction



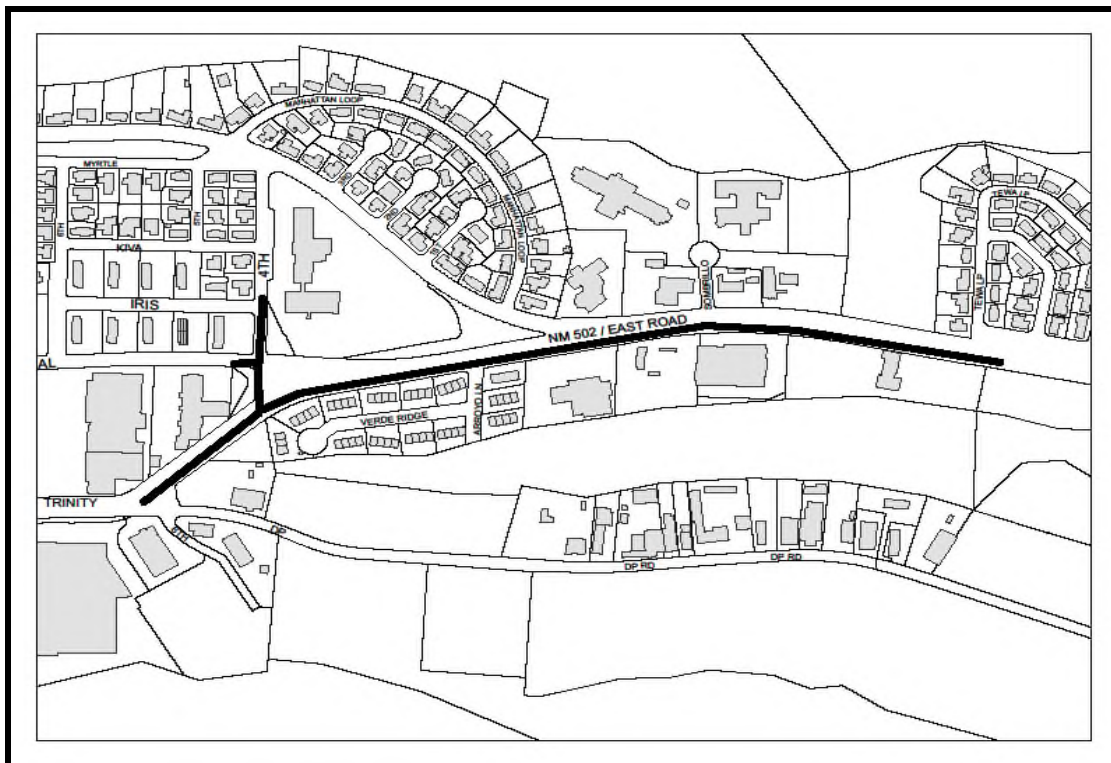
NMDOT NM 502 RECONSTRUCTION

FY19 & FY20: Gas, Water, Sewer, Fiber Optic and Electric

Project Scope: The road and utility reconstruction project, administered by the New Mexico Department of Transportation, was scheduled to begin in 2017. The project was bid three times in 2017. The first two bid attempts resulted in only one bid received and the road component of the project was much higher than expected. As a result of the high bids the project was not awarded. In the third attempt no bids were received. The project is scheduled to be bid in October of 2018. The Department of Public Utilities funded the project in FY 2017 and the funds remain dedicated to the project.

Budget:	Gas Distribution	\$ 417,012.08
	Water Production	\$ 450,291.15
	Water Distribution	\$ 914,826.23
	Wastewater	\$ 101,830.12
	Electric Distribution	\$ 552,784.66
	Fiber Optic	\$ 160,435.68
	Total	\$2,597,179.92

Schedule: Construct 2019



WATER PRODUCTION

FY19: Los Alamos Reservoir Road Stabilization

Project Scope: FEMA awarded Los Alamos County a grant for the stabilization of the Los Alamos Reservoir road and to clear debris from the channel and route the channel to its original path. Phase I of the grant for design and environmental documents is ongoing. This budget item is for Phase II of the project for construction of the improvements. The FEMA grant will cover 75% of the cost while the remaining 25% will be the responsibility of Los Alamos County.

Budget:	FEMA	\$ 1,222,500
	DPU	\$ 203,750
	General Fund	\$ 203,750
	Total Construction	\$ 1,630,000

Schedule: Design and environmental documents are currently in progress. Construction is scheduled for spring 2019.



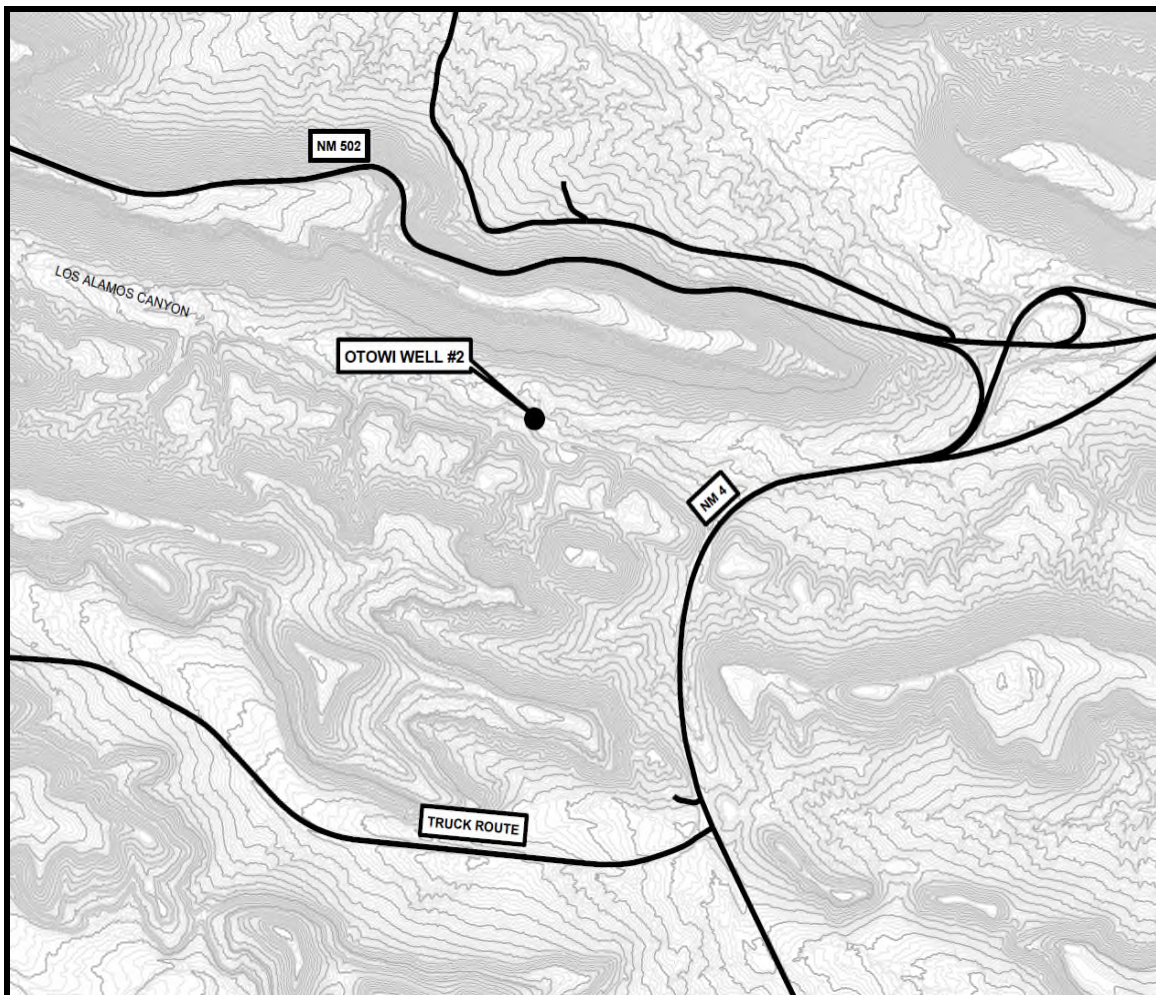
WATER PRODUCTION

FY19: Otowi Well No. 2 Well House and Equipment

Project Scope: The project will be executed in two phases. The first phase of the project for the design, drilling and development of the well is ongoing and scheduled for completion in the summer of 2018. This budget item is for the second phase of the project for design and construction of the well house, electric gear and equipping the well with pumps. The well is scheduled to be online by spring of 2019.

Budget: \$800,000

Schedule: Well to be drilled and developed by summer 2018. Equipping the well is scheduled to be complete by the spring of 2019.



WATER PRODUCTION

FY19: Pajarito Well No. 5 Motor Control Center Replacement

Project Scope: The MCC equipment on the Pajarito Well No. 5 is becoming obsolete. Parts are no longer available on the open market. The DPU has maintained this equipment using parts from spare units. New equipment is required to avoid system breakdowns and to keep the system functioning properly. This project is part of a system wide effort to update all motor control centers and control equipment so they meet current codes and maintain reliable service.

Budget: \$275,000

Schedule: Construction is scheduled for winter 2018/2019.



WATER PRODUCTION

FY19: Automatic Well Replacement: Valves 10 & 11.

Project Scope: These automatic valves are needed to open and close pipelines to transfer water efficiently from one section of the potable water system to other sections whenever there is a need due to a booster station or well pump failure. The mechanical and electrical portions of these valves do not function properly. Further, the equipment was manufactured overseas and it is extremely difficult to order and receive parts.

Budget: \$100,000

Schedule: Spring 2019.



WASTEWATER TREATMENT

FY19 & 20: New Wastewater Treatment Plant in White Rock Design & Construction

Project Scope: Perform the engineering design required to completely replace the existing 50-year old trickling filter plant, with a modern facility that will produce high quality irrigation water for public spaces. The design will follow the selection and recommendations made under the Preliminary Engineering Report approved by the County in summer 2016.

Budget:	Design	\$ 1,000,000
	Construction	\$ 13,000,000
	Construction Admin./Inspection	\$ 520,000

Schedule: Retain engineering services fall 2018. Bid for Construction summer 2019

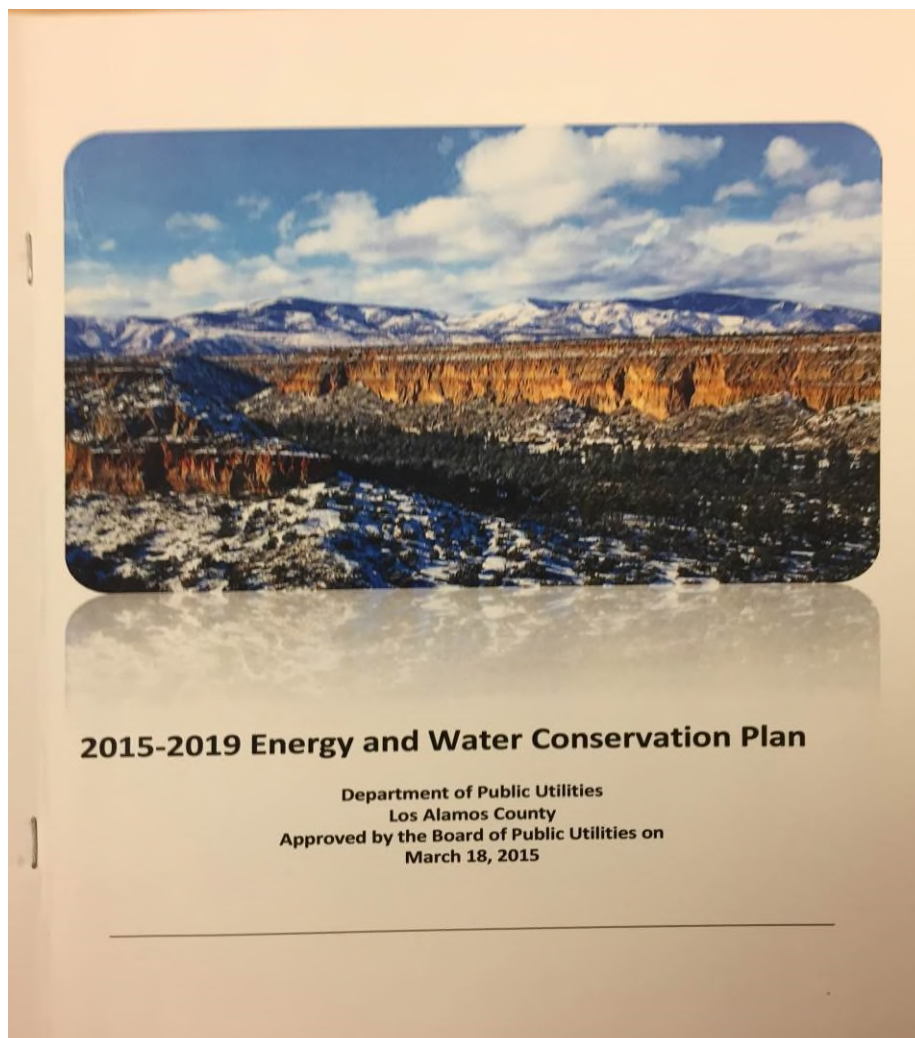


FY20: UPDATE WATER AND ENERGY CONSERVATION PLAN

Project Scope: Complete a five-year update of the Department of Public Utilities energy and water conservation plan. A conservation plan is required by the multiple regulatory agencies.

Budget:	Gas Distribution	\$ 35,000
	Water Production	\$ 35,000
	<u>Electric Production</u>	<u>\$ 35,000</u>
	Total	\$ 105,000

Schedule: Spring 2020



ELECTRIC DISTRIBUTION

FY20: Overhead System Replacement

Project Scope: Many components of the utilities' overhead infrastructure operate near or past their useful plant life; greater than 50 years. The department's Asset Management Program (AMP) prioritizes O&M projects on (a) root cause analysis after power outages, (b) quarterly line patrols, and (c) year-end assessments. The O&M program includes: replacement of power poles, cross-arms, and revamps (wire & transformer upgrades). Priority is placed on the three phase backbone and areas affecting the highest number of consumers.

- | | |
|----------------------------|------------|
| 3. White Rock service area | \$200,000. |
| 4. Los Alamos service area | \$200,000. |

Budget: \$ 400,000
Schedule: Year round design and construction



ELECTRIC DISTRIBUTION

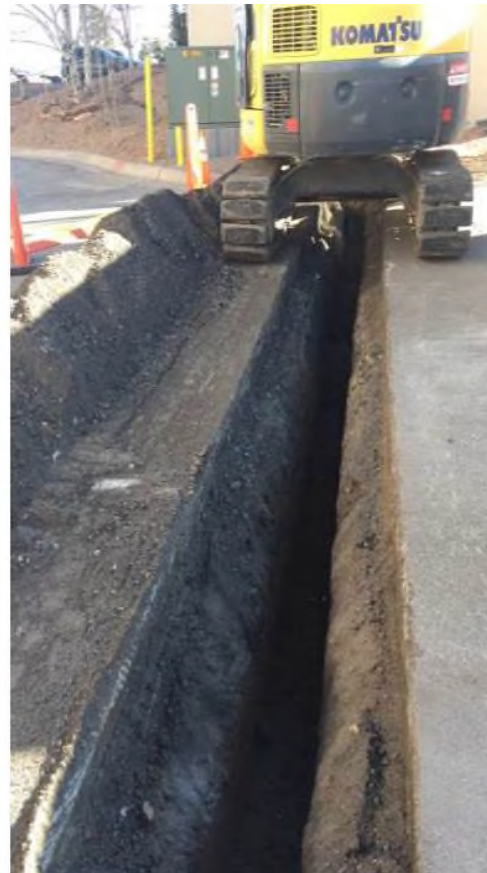
FY20: URD (UG residential distribution) Replacements

Project Scope: The underground system contains 1970s infrastructure which was direct-buried and in direct contact with the earth. Portions or segments of the underground system which have experienced 3 or more failures are targeted for replacement because they will fail again. Old and obsolete live-front transformers are routinely replaced due to safety and arc-flash concerns. New loop segments are designed for radial power lines which serve large amounts of customers.

- | | |
|---|------------|
| 3. Los Alamos town site area after three failure replacements | \$300,000. |
| 4. White Rock area after three failure replacements | \$300,000. |

Budget: \$ 600,000

Schedule: Year round design and construction



WATER PRODUCTION

FY20: Design of New Tank & Booster Stations & Diamond Drive Service Connections

Project Scope: These two projects are for expansion of the non-potable water system. Application for funding to the Water Trust Board will be made in 2019 for funding. The projects will not go forward if grant funding is not secured. One project is to design the replacement/refurbishment of existing booster stations in Bayo Canyon and at Overlook Park and design of a second tank adjacent to the existing Group 12 tank. The second project is for construction of non-potable water service connections along the Diamond Drive corridor.

Budget:	Design Tank and boosters	\$530,000
	Diamond Service Connections	\$250,000

Schedule: Spring 2020



Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019-FY2028
Electric Production

	FORECAST 2019	FORECAST 2020	FORECAST 2021	FORECAST 2022	FORECAST 2023	FORECAST 2024	FORECAST 2025	FORECAST 2026	FORECAST 2027	FORECAST 2028
Expenditure Forecast										
Total Cash Outflow	38,754,542	37,773,881	41,621,311	41,520,050	41,488,097	42,230,255	44,878,979	50,613,307	52,921,981	52,228,059
	1.50%									
	1.01%									
Revenue Forecast										
Mwh Sales - LANL	510,377	519,916	583,553	603,387	614,684	626,491	650,045	769,065	794,157	794,157
Mwh Sales - LAC Distribution	121,969	123,371	124,788	126,219	127,664	129,123	130,597	132,086	133,590	135,108
Total Mwh Sales	632,346	643,288	708,341	729,606	742,347	755,614	780,642	901,151	927,747	929,265
Revenue per Mwh	\$56.09	\$53.64	\$53.91	\$51.97	\$50.79	\$50.56	\$52.25	\$51.51	\$52.32	\$51.24
DOE Revenues	28,221,178	27,560,161	31,266,164	31,183,097	31,110,920	31,578,030	33,872,341	39,529,405	41,466,077	40,616,561
Economy Sales	3,154,615	3,143,147	3,271,954	3,441,796	3,623,876	3,869,152	3,935,095	4,044,614	4,236,771	4,467,232
Interest on Reserves	96,191	88,855	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000
Bond Federal Subsidy	33,984	33,984	33,984	33,984	33,984	30,867	27,669	24,080	19,561	19,561
Transfer from Distribution Fund	7,248,574	6,947,734	6,919,210	6,731,174	6,589,318	6,622,207	6,913,874	6,885,208	7,069,573	6,994,705
Total Cash Inflow	38,754,542	37,773,881	41,621,311	41,520,050	41,488,097	42,230,255	44,878,979	50,613,307	52,921,981	52,228,059
Net Cash Flow	(0)	0	-	-	-	-	-	-	-	-
Cumulative Net Cash Flow	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Cash Balance	17,172,376	17,172,376	17,172,376	17,172,376	17,172,376	17,172,376	17,172,376	17,172,376	17,172,376	17,172,376
Recommended Cash Balance	17,684,506	17,773,371	17,951,105	18,130,616	18,311,922	18,495,041	18,679,992	18,866,792	19,055,460	19,246,014
Reserves										
Retirement/Reclamation Reserve	10,204,395	10,293,261	10,421,375	10,426,053	9,808,674	9,239,130	8,708,141	8,130,692	8,149,336	8,320,837
Identified items on site	304,500	309,068	313,704	318,409	323,185	328,033	332,953	337,948	343,017	348,162
San Juan Decommissioning	4,898,220	5,086,620	5,275,020	5,463,420	5,651,820	5,840,220	6,028,620	6,217,020	6,405,420	6,593,820
Laramie River Decommissioning	760,980	799,980	838,980	877,980	916,980	955,980	994,980	1,033,980	1,072,980	1,111,980
San Juan Mine Reclamation	4,240,695	4,097,593	3,993,671	3,766,244	2,916,689	2,114,897	1,351,588	541,744	327,919	266,875

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019-FY2028
Electric Distribution

	BUDGET 2019	BUDGET 2020	FORECAST 2021	FORECAST 2022	FORECAST 2023	FORECAST 2024	FORECAST 2025	FORECAST 2026	FORECAST 2027	FORECAST 2028
Expenditure Forecast										
Supervision, Misc Direct Admin	660,479	668,115	678,137	688,309	698,634	709,113	719,750	730,546	741,504	752,627
Substation Maintenance	36,237	36,614	37,164	37,721	38,287	38,861	39,444	40,036	40,636	41,246
Switching Station Maintenance	31,520	31,787	32,264	32,747	33,239	33,737	34,243	34,757	35,278	35,807
Overhead Maintenance	499,014	503,062	510,608	518,267	526,041	533,932	541,941	550,070	558,321	566,696
Underground Maintenance	391,173	394,662	400,582	406,591	412,690	418,880	425,163	431,541	438,014	444,584
Meter Maintenance	82,331	83,143	84,390	85,656	86,941	88,245	89,569	90,912	92,276	93,660
Interdepartmental Charges	638,550	638,550	648,128	657,850	667,718	677,734	687,900	698,218	708,691	719,322
Administrative Division Allocation	753,554	737,817	748,884	760,118	771,519	783,092	794,839	806,761	818,863	831,146
In Lieu Taxes	529,609	526,476	419,207	422,250	425,322	428,425	431,560	434,725	437,922	441,152
Debt Service	1,271,957	1,253,438	1,253,443	1,133,909	982,377	984,776	1,015,816	1,178,311	1,178,311	1,178,311
Profit Transfer	610,735	610,735	654,046	660,587	667,192	673,864	680,603	687,409	694,283	701,226
Cost of Power	7,248,574	6,947,734	6,919,210	6,731,174	6,589,318	6,622,207	6,913,874	6,885,208	7,069,573	6,994,705
Total Operations Expenses	12,753,734	12,432,134	12,386,064	12,135,178	11,899,278	11,992,867	12,374,701	12,568,494	12,813,673	12,800,481
Capital	1,340,817	1,351,042	1,071,105	1,236,361	1,248,725	1,261,212	1,273,824	1,286,562	1,299,428	1,312,422
Total Cash Outflow	14,094,551	13,783,176	13,457,169	13,371,540	13,148,002	13,254,080	13,648,525	13,855,057	14,113,101	14,112,903
Revenue Forecast										
KWh Sales	121,939,000	123,371,000	124,604,710	125,850,757	127,109,265	128,380,357	129,664,161	130,960,802	132,270,411	133,593,115
Revenue per KWh	\$0.1221	\$0.1221	\$0.1221	\$0.1221	\$0.1221	\$0.1221	\$0.1221	\$0.1221	\$0.1221	\$0.1221
Rate Increase Percentage										
Total Sales Revenue	14,203,145	14,203,145	15,210,373	15,362,477	15,516,102	15,671,263	15,827,975	15,986,255	16,146,118	16,307,579
Bond Federal Subsidy	67,942	67,942	67,942	67,942	67,942	66,045	64,099	58,759	47,731	47,731
Interest on Utility Reserves	-	-	-	38,233	97,001	166,667	239,254	307,664	376,445	444,215
Pole Rentals	53,601	53,601	53,601	53,601	53,601	53,601	53,601	53,601	53,601	53,601
Misc. Service Revenues	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Revenue on Recoverable Work	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Total Cash Inflow	14,524,688	14,524,688	15,531,916	15,722,253	15,934,645	16,157,575	16,384,930	16,606,279	16,823,894	17,053,125
R&R and Cash Flows										
Net Cash Flow	430,137	741,512	2,074,747	2,350,713	2,786,643	2,903,496	2,736,405	2,751,222	2,710,793	2,940,222
Cumulative Net Cash Flow	430,137	1,171,649	3,246,396	5,597,109	8,383,752	11,287,248	14,023,652	16,774,875	19,485,668	22,425,890
Cash Balance	(1,286,948)	(545,436)	1,529,311	3,880,024	6,666,667	9,570,163	12,306,568	15,057,790	17,768,583	20,708,805
Recommended Cash Balance	11,879,242	11,848,916	11,337,139	11,258,663	11,173,421	11,501,382	11,538,150	11,919,913	11,880,464	11,441,056

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019 through FY2028
Electric Fund Cash Reserve Analysis

	FORECAST 2019	FORECAST 2020	FORECAST 2021	FORECAST 2022	FORECAST 2023	FORECAST 2024	FORECAST 2025	FORECAST 2026	FORECAST 2027	FORECAST 2028
ELECTRIC DIST & PROD CASH RESERVES										
Combined Cash Balance ED & EP	15,885,428	16,626,940	18,701,687	21,052,400	23,839,043	26,742,539	29,478,943	32,230,166	34,940,959	37,881,181
Recommended Cash Balance (ED)	11,879,242	11,848,916	11,337,139	11,258,663	11,173,421	11,501,382	11,538,150	11,919,913	11,880,464	11,441,056
Recommended Cash Balance (EP)	17,684,506	17,773,371	17,951,105	18,130,616	18,311,922	18,495,041	18,679,992	18,866,792	19,055,460	19,246,014
Recommended Cash Balance	29,563,748	29,622,287	29,288,244	29,389,279	29,485,344	29,996,424	30,218,142	30,786,705	30,935,924	30,687,070
TARGET RESERVE BALANCES										
Debt Service Reserve	4,046,374	4,030,211	4,016,054	2,058,835	1,430,597	1,429,568	1,449,954	1,602,373	1,596,699	1,594,293
Retirement/Reclamation Reserve	10,204,395	10,293,261	10,421,375	10,426,053	9,808,674	9,239,130	8,708,141	8,130,692	8,149,336	8,320,837
Identified items on site	304,500	309,068	313,704	318,409	323,185	328,033	332,953	337,948	343,017	348,162
San Juan Decommissioning	4,898,220	5,086,620	5,275,020	5,463,420	5,651,820	5,840,220	6,028,620	6,217,020	6,405,420	6,593,820
Laramie River Decommissioning	760,980	799,980	838,980	877,980	916,980	955,980	994,980	1,033,980	1,072,980	1,111,980
San Juan Mine Reclamation	4,240,695	4,097,593	3,993,671	3,766,244	2,916,689	2,114,897	1,351,588	541,744	327,919	266,875
Operations Reserve	6,516,928	6,413,224	6,926,444	7,076,988	7,226,888	7,389,861	7,617,447	7,729,988	7,845,346	1,963,120
Capital Expenditures Reserve	1,486,042	1,050,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	2,000,000
Contingency Reserve	507,500	515,113	522,839	530,682	538,642	546,722	554,922	563,246	571,695	580,270
Rate Stabilization Reserve	6,947,734	6,919,210	6,731,174	6,589,318	6,622,207	6,913,874	6,885,208	7,069,573	7,175,616	7,283,251
	29,708,972	29,221,018	29,817,885	27,881,876	26,827,009	26,719,155	26,415,673	26,295,872	26,538,693	21,741,771
RESERVE BALANCE FORECAST										
Debt Service Reserve	4,046,374	4,030,211	4,016,054	2,058,835	1,430,597	1,429,568	1,449,954	1,602,373	1,596,699	1,594,293
Retirement/Reclamation Reserve	10,204,395	10,293,261	10,421,375	10,426,053	9,808,674	9,239,130	8,708,141	8,130,692	8,149,336	8,320,837
Operations Reserve	1,634,659	2,303,469	4,264,258	7,076,988	7,226,888	7,389,861	7,617,447	7,729,988	7,845,346	1,963,120
Capital Expenditures Reserve	-	-	-	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	2,000,000
Contingency Reserve	-	-	-	290,523	538,642	546,722	554,922	563,246	571,695	580,270
Rate Stabilization Reserve	-	-	-	-	3,634,241	6,913,874	6,885,208	7,069,573	7,175,616	7,283,251
Total Cash Remaining	-	-	-	-	-	23,384	3,063,270	5,934,294	8,402,267	16,139,410

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019-FY2028
Gas Distribution

1.50%

Expenditure Forecast

	BUDGET 2019	BUDGET 2020	FORECAST 2021	FORECAST 2022	FORECAST 2023	FORECAST 2024	FORECAST 2025	FORECAST 2026	FORECAST 2027	FORECAST 2028
Supervision, Misc Direct Admin	265,698	269,356	273,397	277,497	281,660	285,885	290,173	294,526	298,944	303,428
Customer Service	63,015	63,843	64,801	65,773	66,760	67,761	68,777	69,809	70,856	71,919
Gas Distribution	270,143	274,792	278,914	283,098	287,344	291,654	296,029	300,470	304,977	309,551
Gas Meters	133,686	135,940	137,979	140,048	142,149	144,281	146,446	148,642	150,872	153,135
Capital Support & Inspection	6,074	6,237	6,331	6,426	6,522	6,620	6,719	6,820	6,922	7,026
Interdepartmental Charges	349,581	349,581	354,825	360,147	365,549	371,033	376,598	382,247	387,981	393,800
Administrative Division Allocation	620,187	633,703	643,209	652,857	662,650	672,589	682,678	692,918	703,312	713,862
In Lieu Taxes	216,418	227,970	227,970	227,970	227,970	227,970	227,970	227,970	227,970	227,970
Profit Transfer	254,125	279,133	262,692	264,836	275,553	283,413	286,985	290,915	290,915	292,344
Cost of Gas	2,333,250	2,754,000	2,960,550	3,006,450	3,235,950	3,404,250	3,480,750	3,564,900	3,564,900	3,595,500
TOTAL Operations Expenses	4,512,178	4,994,556	5,210,667	5,285,102	5,552,107	5,755,456	5,863,126	5,979,217	6,007,649	6,068,536
Capital	-	35,000	51,005	289,515	301,775	314,252	325,887	339,867	353,011	273,421
TOTAL Cash Outflow	4,512,178	5,029,556	5,261,672	5,574,617	5,853,882	6,069,708	6,189,013	6,319,084	6,360,660	6,341,957
<i>Total outflow less COG</i>	<i>2,178,928</i>	<i>2,275,556</i>	<i>2,301,122</i>	<i>2,568,167</i>	<i>2,617,932</i>	<i>2,665,458</i>	<i>2,708,263</i>	<i>2,754,184</i>	<i>2,795,760</i>	<i>2,746,457</i>

Revenue Forecast

Therm Sales	7,650,000	7,650,000	7,650,000	7,650,000	7,650,000	7,650,000	7,650,000	7,650,000	7,650,000	7,650,000
Revenue per Therm	\$ 0.230	\$ 0.230	\$ 0.230	\$ 0.230	\$ 0.230	\$ 0.230	\$ 0.230	\$ 0.230	\$ 0.230	\$ 0.230
Rate Increase Percentage										
Cost of Gas Sales Revenue	2,333,250	2,754,000	2,960,550	3,006,450	3,235,950	3,404,250	3,480,750	3,564,900	3,564,900	3,595,500
Sales Rev from Fixed/Svc Chg	3,108,404	3,223,154	2,664,546	2,664,546	2,664,546	2,664,546	2,664,546	2,664,546	2,664,546	2,664,546
Total Sales Revenue	5,441,654	5,977,154	5,625,096	5,670,996	5,900,496	6,068,796	6,145,296	6,229,446	6,229,446	6,260,046
Interest on Utility Reserves	30,496	54,995	48,336	54,817	57,394	59,268	60,462	61,036	60,935	60,214
Revenue on Recoverable Work	20,000	20,000	20,300	20,605	20,914	21,227	21,546	21,869	22,197	22,530
TOTAL Cash Inflow	5,492,150	6,052,149	5,693,732	5,746,418	5,978,804	6,149,291	6,227,303	6,312,351	6,312,578	6,342,790

R&R and Cash Flows

Net Cash Flow	979,972	1,022,594	432,061	171,801	124,921	79,583	38,290	(6,733)	(48,082)	832
Cummulative net cash flow	979,972	2,002,566	2,434,626	2,606,427	2,731,348	2,810,931	2,849,222	2,842,488	2,794,406	2,795,238
Cash Balance	2,199,819	3,222,413	3,654,473	3,826,274	3,951,196	4,030,778	4,069,069	4,062,335	4,014,253	4,015,086
Recommended Cash Balance	1,251,152	1,288,268	1,536,132	1,562,249	1,588,623	1,614,258	1,642,157	1,669,324	1,611,764	1,630,481

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019 through FY2028
Gas Cash Reserve Analysis

GAS UTILITY CASH RESERVES										
	BUDGET 2019	BUDGET 2020	FORECAST 2021	FORECAST 2022	FORECAST 2023	FORECAST 2024	FORECAST 2025	FORECAST 2026	FORECAST 2027	FORECAST 2028
Cash Balance	2,199,819	3,222,413	3,654,473	3,826,274	3,951,196	4,030,778	4,069,069	4,062,335	4,014,253	4,015,086
Recommended Cash Balance	1,251,152	1,288,268	1,536,132	1,562,249	1,588,623	1,614,258	1,642,157	1,669,324	1,611,764	1,630,481
TARGET RESERVE BALANCES										
Operations Reserve	962,402	980,711	993,712	1,006,908	1,020,302	1,033,897	1,047,695	1,061,701	1,075,917	1,090,346
Capital Expenditures Reserve	35,000	50,000	281,000	290,000	299,000	307,000	317,000	326,000	250,000	250,000
Contingency Reserve	253,750	257,556	261,420	265,341	269,321	273,361	277,461	281,623	285,847	290,135
Rate Stabilization Reserve*	-	-	-	-	-	-	-	-	-	-
	1,251,152	1,288,268	1,536,132	1,562,249	1,588,623	1,614,258	1,642,157	1,669,324	1,611,764	1,630,481
RESERVE BALANCE FORECAST										
Operations Reserve	962,402	980,711	993,712	1,006,908	1,020,302	1,033,897	1,047,695	1,061,701	1,075,917	1,090,346
Capital Expenditures Reserve	35,000	50,000	281,000	290,000	299,000	307,000	317,000	326,000	250,000	250,000
Contingency Reserve	253,750	257,556	261,420	265,341	269,321	273,361	277,461	281,623	285,847	290,135
Rate Stabilization Reserve*	-	-	-	-	-	-	-	-	-	-
Total Cash Remaining	948,668	1,934,145	2,118,341	2,264,025	2,362,573	2,416,521	2,426,912	2,393,011	2,402,489	2,384,604

* Assumes pass-through cost of gas rate remains in place.

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019-FY2028
Water Distribution

	BUDGET 2019	BUDGET 2020	FORECAST 2021	FORECAST 2022	FORECAST 2023	FORECAST 2024	FORECAST 2025	FORECAST 2026	FORECAST 2027	FORECAST 2028
Expenditure Forecast										
Supervision, Misc Direct Admin	227,392	230,443	233,900	237,408	240,969	244,584	248,253	251,977	255,756	259,593
Hydrants	-	-	-	-	-	-	-	-	-	-
Water Distribution	416,904	423,176	429,523	435,966	442,506	449,143	455,880	462,719	469,659	476,704
Water Meters	693,060	704,816	404,816	410,889	417,052	423,308	429,657	436,102	442,644	449,283
Capital Project Inspections & Support	6,074	6,237	6,331	6,426	6,522	6,620	6,719	6,820	6,922	7,026
Interdepartmental Charges	338,477	338,477	343,554	348,707	353,938	359,247	364,636	370,105	375,657	381,292
Administrative Division Allocation	632,896	673,791	683,898	694,156	704,569	715,137	725,864	736,752	747,804	759,021
Cost of Water	2,829,409	2,985,026	2,828,750	2,828,750	2,828,750	2,828,750	2,828,750	2,828,750	2,828,750	2,828,750
Capital	-	-	51,005	1,075,000	870,000	896,000	922,000	823,000	1,174,000	1,041,000
Total Operation Expenses	5,144,212	5,361,967	4,930,772	4,962,303	4,994,306	5,026,789	5,059,760	5,093,225	5,127,192	5,161,669
Total Capital Expenditures	0	0	51,005	1,075,000	870,000	896,000	922,000	823,000	1,174,000	1,041,000
Total Expenditures	5,144,212	5,361,967	4,981,777	6,037,303	5,864,306	5,922,789	5,981,760	5,916,225	6,301,192	6,202,669

Revenue Forecast										
kgal Sales	775,000	775,000	775,000	775,000	775,000	775,000	775,000	775,000	775,000	775,000
Revenue per kgal	\$ 6.66	\$ 6.99	\$ 7.28	\$ 7.54	\$ 7.73	\$ 7.88	\$ 8.02	\$ 8.14	\$ 8.26	\$ 8.39
Rate Increase Percentage	6.25%	5.00%	4.25%	3.50%	2.50%	2.00%	1.75%	1.50%	1.50%	1.50%
Total Sales Revenue	5,160,579	5,415,543	5,645,704	5,843,303	5,989,386	6,109,173	6,216,084	6,309,325	6,403,965	6,500,025
Interest on Utility Reserves	-	-	-	-	-	-	-	-	-	-
Revenue on Recoverable Work	15,000	15,000	15,225	15,453	15,685	15,920	16,159	16,402	16,648	16,897
Misc Service Revenues	15,000	15,000	15,225	15,453	15,685	15,920	16,159	16,402	16,648	16,897
Total Cash Inflow from Operations	5,190,579	5,445,543	5,676,154	5,874,210	6,020,756	6,141,014	6,248,403	6,342,129	6,437,261	6,533,819

R&R and Cash Flows										
Net Cash Flow										
Cumulative Net Cash Flow	46,367	83,576	694,376	(163,093)	156,450	218,225	266,643	425,903	136,068	331,151
	46,367	129,944	824,320	661,227	817,677	1,035,902	1,302,545	1,728,448	1,864,517	2,195,667
Cash Balance	(2,807,339)	(2,723,763)	(2,029,387)	(2,192,479)	(2,036,029)	(1,817,804)	(1,551,162)	(1,125,258)	(989,190)	(658,039)
Recommended Cash Balance	1,204,364	2,260,352	1,917,846	1,959,563	2,001,517	1,918,710	2,286,145	2,169,827	1,945,760	1,162,946

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019-FY2028
Water Distribution

Rates											
Commodity rate per kgal											
Residential Tier 1 - < 9,000 gals	5.29	5.55	5.79	5.99	6.14	6.26	6.37	6.47	6.57	6.67	
Residential Tier 2 - 9 to 15,000 gals	5.62	5.90	6.15	6.37	6.53	6.66	6.78	6.88	6.98	7.08	
Residential Tier 3 - > 15,000 gals	6.71	7.05	7.35	7.61	7.80	7.96	8.10	8.22	8.34	8.47	
Multi-Family Tier 1 - < 9,000 gals	5.29	5.55	5.79	5.99	6.14	6.26	6.37	6.47	6.57	6.67	
Multi-Family Tier 2 - 9 to 15,000 gals	5.55	5.83	6.08	6.29	6.45	6.58	6.70	6.80	6.90	7.00	
Multi-Family Tier 3 - > 15,000 gals	5.68	5.96	6.21	6.43	6.59	6.72	6.84	6.94	7.04	7.15	
Commercial All Tiers	5.29	5.55	5.79	5.99	6.14	6.26	6.37	6.47	6.57	6.67	
County & Schools All Tiers	5.29	5.55	5.79	5.99	6.14	6.26	6.37	6.47	6.57	6.67	
Customer Charge per Meter Size											
= or < 1.25"	10.01	10.51	10.96	11.34	11.62	11.85	12.06	12.24	12.42	12.61	
1.5"	31.71	33.30	34.72	35.94	36.84	37.58	38.24	38.81	39.39	39.98	
2"	47.33	49.70	51.81	53.62	54.96	56.06	57.04	57.90	58.77	59.65	
2.5" to 3"	93.41	98.08	102.25	105.83	108.48	110.65	112.59	114.28	115.99	117.73	
4"	159.04	166.99	174.09	180.18	184.68	188.37	191.67	194.55	197.47	200.43	
6"	335.76	352.55	367.53	380.39	389.90	397.70	404.66	410.73	416.89	423.14	
8"	554.76	582.50	607.26	628.51	644.22	657.10	668.60	678.63	688.81	699.14	

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019-FY2028
Water Production

	BUDGET 2019	BUDGET 2020	FORECAST 2021	FORECAST 2022	FORECAST 2023	FORECAST 2024	FORECAST 2025	FORECAST 2026	FORECAST 2027	FORECAST 2028
Expenditure Forecast										
Supervision and Operations	676,041	676,063	686,203	696,497	706,944	717,548	728,311	739,236	750,325	761,579
Pumping Power	810,500	821,157	833,474	845,976	858,666	871,546	884,619	897,889	911,357	925,027
Wells	129,025	131,661	133,636	135,640	137,675	139,740	141,836	143,964	146,123	148,315
Booster Pump Stations	128,025	130,261	132,215	134,198	136,211	138,254	140,328	142,433	144,570	146,738
Treatment	152,354	155,151	157,478	159,840	162,238	164,671	167,142	169,649	172,193	174,776
Storage Tanks	41,512	42,131	42,762	43,404	44,055	44,716	45,387	46,067	46,758	47,460
Transmission Lines	208,432	212,480	215,667	218,902	222,185	225,518	228,901	232,335	235,820	239,357
Capital Project Inspection & Support	13,671	14,010	14,220	14,434	14,650	14,870	15,093	15,319	15,549	15,782
Non Potable System	290,169	270,899	274,963	279,087	283,273	287,523	291,835	296,213	300,656	305,166
Ski Hill	67,253	68,558	69,586	70,630	71,689	72,765	73,856	74,964	76,088	77,230
Interdepartmental Charges	319,997	319,997	324,797	329,669	334,614	339,633	344,728	349,899	355,147	360,474
Administrative Division Allocation	684,044	671,804	681,882	692,110	702,491	713,029	723,724	734,580	745,599	756,783
State Water Tax	45,000	45,000	45,675	46,360	47,056	47,761	48,478	49,205	49,943	50,692
Debt Service	238,433	258,373	306,914	356,139	645,312	691,916	624,327	500,759	547,161	586,686
Capital	1,378,750	35,000	-	-	-	1,194,000	1,230,000	1,267,000	1,305,000	1,344,000
Capital Paid with Debt/Grants/Reimb	1,426,250	780,000	750,000	-	825,000	1,300,000	922,000	633,000	1,207,000	336,000
Capital Paid with Cash										
Total Operations Expenses	3,804,455	3,817,545	3,919,472	4,022,886	4,367,060	4,469,491	4,458,566	4,392,510	4,497,289	4,596,066
Total Capital Expenditures	2,805,000	815,000	750,000	0	825,000	2,494,000	2,152,000	1,900,000	2,512,000	1,680,000
Less Capital Paid by WTB/Other	(1,426,250)	(780,000)	(750,000)	-	(825,000)	(1,300,000)	(922,000)	(633,000)	(1,207,000)	(336,000)
Total Cash Outflow	5,183,205	3,852,545	3,919,472	4,022,886	4,367,060	5,663,491	5,688,566	5,659,510	5,802,289	5,940,066
Revenue Forecast										
Non-potable										
Non-potable production in kgal	90,400	90,400	94,500	94,500	108,600	136,500	136,500	136,500	136,500	136,500
Revenue per kgal	\$ 1.70	\$ 1.70	\$ 1.70	\$ 1.70	\$ 1.70	\$ 1.70	\$ 1.70	\$ 1.70	\$ 1.70	\$ 1.70
Non-potable rate per 1000 gallons	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50	\$ 2.50
Rate Increase Percentage										
Non-potable sales revenue	\$ 153,680	\$ 153,680	\$ 160,650	\$ 160,650	\$ 184,620	\$ 232,050	\$ 232,050	\$ 232,050	\$ 232,050	\$ 232,050

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019-FY2028
Water Production

	BUDGET 2019	BUDGET 2020	FORECAST 2021	FORECAST 2022	FORECAST 2023	FORECAST 2024	FORECAST 2025	FORECAST 2026	FORECAST 2027	FORECAST 2028
Potable										
Production in thousand gallons	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000
Revenue per thousand gallons	\$ 3.65	\$ 3.65	\$ 3.65	\$ 3.65	\$ 3.65	\$ 3.65	\$ 3.65	\$ 3.65	\$ 3.65	\$ 3.65
Rate Increase Percentage										
Potable sales revenue	\$ 4,197,500	\$ 4,197,500	\$ 4,197,500	\$ 4,197,500	\$ 4,197,500	\$ 4,197,500	\$ 4,197,500	\$ 4,197,500	\$ 4,197,500	\$ 4,197,500
Total Sales Revenue	\$ 4,351,180	\$ 4,351,180	\$ 4,358,150	\$ 4,358,150	\$ 4,382,120	\$ 4,429,550	\$ 4,429,550	\$ 4,429,550	\$ 4,429,550	\$ 4,429,550
Repayment & Interest on Inter-Utility Loans	187,569	187,569	187,569	187,569	187,569	187,569	93,784	-	-	-
Interest on Utility Reserves	79,426	71,364	90,161	112,571	122,515	140,181	146,408	145,180	138,560	138,280
Bond Federal Subsidy	27,576	27,576	27,576	27,576	27,576	21,338	14,940	10,459	8,496	8,496
Econ Dev Fund/Ski Hill Reimb	-	468,000								
Federal or State Grant/Loan	-	-	750,000	-	825,000	1,300,000	922,000	633,000	1,207,000	336,000
Total Cash Inflow	4,645,751	5,105,689	5,413,456	4,685,866	5,544,780	6,078,638	5,606,682	5,218,189	5,783,606	4,912,326
R&R and Cash Flows										
Net Cash Flow	(537,455)	1,253,144	1,493,983	662,979	1,177,720	415,147	(81,884)	(441,322)	(18,683)	(1,027,740)
Cumulative Net Cash Flow	(537,455)	715,690	2,209,673	2,872,652	4,050,372	4,465,520	4,383,636	3,942,314	3,923,631	2,895,891
Cash Balance	4,757,582	6,010,726	7,504,710	8,167,689	9,345,409	9,760,556	9,678,673	9,237,351	9,218,668	8,190,928
Recommended Cash Balance	2,742,232	2,769,344	2,855,549	4,137,004	4,500,979	4,623,969	4,634,356	4,590,362	4,333,949	3,415,276

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019 through FY2028
Water Fund Cash Reserve Analysis

WATER DIST & PROD CASH RESERVES										
	BUDGET 2019	BUDGET 2020	FORECAST 2021	FORECAST 2022	FORECAST 2023	FORECAST 2024	FORECAST 2025	FORECAST 2026	FORECAST 2027	FORECAST 2028
Combined Cash Balance DW & WP	1,950,243	3,286,964	5,475,323	5,975,210	7,309,380	7,942,752	8,127,511	8,112,093	8,229,478	7,532,888
Recommended Cash Balance (DW)	1,204,364	2,260,352	1,917,846	1,959,563	2,001,517	1,918,710	2,286,145	2,169,827	1,945,760	1,162,946
Recommended Cash Balance (WP)	2,742,232	2,769,344	2,855,549	4,137,004	4,500,979	4,623,969	4,634,356	4,590,362	4,333,949	3,415,276
Recommended Cash Balance	3,946,596	5,029,695	4,773,394	6,096,567	6,502,496	6,542,678	6,920,501	6,760,190	6,279,709	4,578,222
TARGET RESERVE BALANCES										
Debt Service Reserve	238,433	258,373	306,914	356,139	645,312	691,916	624,327	500,759	547,161	586,686
Operations Reserve	2,940,413	2,968,056	2,857,291	2,900,150	2,943,652	2,987,807	3,032,624	3,078,113	3,124,285	3,171,149
Capital Expenditures Reserve	35,000	50,000	1,075,000	870,000	2,090,000	2,152,000	2,090,000	2,479,000	2,385,000	1,800,000
Contingency Reserve	761,250	772,669	784,259	796,023	807,963	820,082	832,384	844,869	857,542	870,406
	3,975,095	4,049,098	5,023,463	4,922,312	6,486,927	6,651,806	6,579,335	6,902,741	6,913,989	6,428,241
RESERVE BALANCE FORECAST										
Debt Service Reserve	238,433	258,373	306,914	356,139	645,312	691,916	624,327	500,759	547,161	586,686
Operations Reserve	1,711,810	2,968,056	2,857,291	2,900,150	2,943,652	2,987,807	3,032,624	3,078,113	3,124,285	3,171,149
Capital Expenditures Reserve	-	50,000	1,075,000	870,000	2,090,000	2,152,000	2,090,000	2,479,000	2,385,000	1,800,000
Contingency Reserve	-	10,534	784,259	796,023	807,963	820,082	832,384	844,869	857,542	870,406
Total Cash Remaining	-	-	451,860	1,052,898	822,453	1,290,946	1,548,176	1,209,351	1,315,489	1,104,647

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019-FY2028
Wastewater Division

1.50%

EXPENSE FORECAST										
BUDGET	BUDGET	FORECAST	FORECAST	FORECAST	FORECAST	FORECAST	FORECAST	FORECAST	FORECAST	FORECAST
2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
WASTEWATER COLLECTION										
Supervision, Misc Direct Admin	282,862	286,534	290,832	295,194	299,622	304,116	308,678	313,308	318,008	322,778
Wastewater Collection Operations	341,104	346,674	351,874	357,152	362,509	367,947	373,466	379,068	384,754	390,525
Sewer Lift Stations	139,160	140,618	142,727	144,868	147,041	149,247	151,485	153,758	156,064	158,405
Capital Project Inspection & Support	4,074	4,137	4,199	4,262	4,326	4,391	4,457	4,524	4,592	4,661
Total WWC Operations Expenses	767,201	777,962	789,632	801,476	813,498	825,701	838,086	850,658	863,418	876,369
WASTEWATER TREATMENT										
LA WWTP Operations & Maintenance	-	-	-	-	-	-	-	-	-	-
WR WWTP Operations & Maintenance	1,866,805	1,712,881	1,738,574	1,764,653	1,791,123	1,817,990	1,845,259	1,872,938	1,901,032	1,929,548
Total WWT Operations Expenses	1,866,805	1,712,881	1,738,574	1,764,653	1,791,123	1,817,990	1,845,259	1,872,938	1,901,032	1,929,548
Interdepartmental Charges	593,177	593,177	602,075	611,106	620,272	629,576	639,020	648,605	658,334	668,209
Administrative Division Allocation	777,322	764,534	776,002	787,642	799,456	811,448	823,620	835,974	848,514	861,242
Operations encumbrances rolled forward										
Debt Service (WWT)	966,892	966,893	1,625,124	1,625,123	1,625,123	1,625,124	1,531,339	1,437,555	1,437,554	1,434,213
Capital	1,000,000	13,520,000	50,000	844,000	4,528,000	537,000	678,000	988,000	854,000	854,000
Total Operations Expenses	4,971,397	4,815,447	5,531,406	5,590,000	5,649,473	5,709,839	5,677,325	5,645,730	5,708,853	5,769,581
Total Capital Expenditures	1,000,000	13,520,000	50,000	844,000	4,528,000	537,000	678,000	988,000	854,000	854,000
Total Cash Outflow	5,971,397	18,335,447	5,581,406	6,434,000	10,177,473	6,246,839	6,355,325	6,633,730	6,562,853	6,623,581
REVENUE FORECAST										
<i>Mgal Processed</i>	430,000	430,000	430,000	430,000	430,000	430,000	430,000	430,000	430,000	430,000
Res'l Single-Family Flat Rate Customers	6,629	6,629	6,629	6,629	6,629	6,629	6,629	6,629	6,629	6,629
Res'l Single Family Flat Rate	40.15	42.66	44.79	46.69	48.32	49.53	50.52	51.40	52.17	52.95
Res'l Single-Family Service Charge	11.09	11.78	12.37	12.90	13.35	13.68	13.95	14.19	14.40	14.62
Rate Increase Percentage	8.00%	6.25%	5.00%	4.25%	3.50%	2.50%	2.00%	1.75%	1.50%	1.50%
Total Revenue from Res'l SF Flat Rate	4,035,279	4,287,287	4,501,494	4,692,863	4,856,668	4,977,947	5,077,175	5,165,378	5,242,555	5,321,308

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019-FY2028
Wastewater Division

1.50%

	BUDGET 2019	BUDGET 2020	FORECAST 2021	FORECAST 2022	FORECAST 2023	FORECAST 2024	FORECAST 2025	FORECAST 2026	FORECAST 2027	FORECAST 2028
Res'l Multi-Family Flat Rate Customers	75	75	75	75	75	75	75	75	75	75
Res'l Multi-Family Service Charge	11.09	11.78	12.37	12.90	13.35	13.68	13.95	14.19	14.40	14.62
No. of Res'l Multi-Family Dwelling Units	1,585	1,585	1,585	1,585	1,585	1,585	1,585	1,585	1,585	1,585
Res'l Multi-Family Flat Rate	33.45	35.54	37.32	38.91	40.27	41.28	42.11	42.85	43.49	44.14
Rate Increase Percentage	8.00%	6.25%	5.00%	4.25%	3.50%	2.50%	2.00%	1.75%	1.50%	1.50%
Total Revenue from Res'l MF Flat Rate	607,428	645,378	677,702	706,578	731,273	749,610	764,678	778,111	789,731	801,539
Non-Residential Customers	291	291	291	291	291	291	291	291	291	291
Non-Residential Service Charge	11.09	11.78	12.37	12.90	13.35	13.68	13.95	14.19	14.40	14.62
Non-Residential Sales in Kgal	45,572	45,572	45,481	45,390	45,299	45,209	45,118	45,028	44,938	44,848
Adjustment Factor	8.00%	1.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Adjusted Non-Residential Sales in Kgal	49,218	46,370	45,481	45,390	45,299	45,209	45,118	45,028	44,938	44,848
Non-Res'l Commodity Charge per Kgal	18.90	20.08	21.08	21.98	22.75	23.32	23.79	24.21	24.57	24.94
Rate Increase Percentage	8.00%	6.25%	5.00%	4.25%	3.50%	2.50%	2.00%	1.75%	1.50%	1.50%
Total Revenue from Non-Residential	939,874	943,068	971,875	1,011,435	1,044,858	1,068,972	1,088,411	1,105,486	1,119,775	1,134,474
Total Sales Revenue	5,582,581	5,875,734	6,151,070	6,410,875	6,632,799	6,796,529	6,930,264	7,048,975	7,152,061	7,257,320
Interest on Utility Reserves	35,667	26,838	66,016	81,908	83,378	-	10,588	25,226	36,237	51,874
Bond Issue Proceeds	-	14,000,000	-	-	-	-	-	-	-	-
Revenue on Recoverable Work	-	-	-	-	-	-	-	-	-	-
Total Cash Inflow	5,618,248	19,902,572	6,217,087	6,492,784	6,716,177	6,796,529	6,940,851	7,074,201	7,188,299	7,309,194
Net Cash Flow	(353,149)	1,567,125	635,680	58,783	(3,461,296)	549,690	585,526	440,470	625,446	685,613
Cumulative Net Cash Flow	(353,149)	1,213,976	1,849,656	1,908,439	(1,552,857)	(1,003,167)	(417,641)	22,829	648,275	1,333,888
Cash Balance	1,073,521	2,640,646	3,276,326	3,335,109	(126,187)	423,503	1,009,029	1,449,499	2,074,945	2,760,558
Recommended Cash Balance	3,374,394	4,095,749	8,472,252	4,516,039	4,692,348	5,038,187	4,846,778	4,447,915	4,723,390	4,008,086

Los Alamos County Utilities Department
10-Year Financial Forecast - FY2019 through FY2028
Wastewater Fund Cash Reserve Analysis

WASTEWATER UTILITY CASH RESERVES										
BUDGET	BUDGET	FORECAST	FORECAST	FORECAST	FORECAST	FORECAST	FORECAST	FORECAST	FORECAST	FORECAST
2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
1,073,521	2,640,646	3,276,326	3,335,109	(126,187)	423,503	1,009,029	1,449,499	2,074,945	2,760,558	
3,374,394	4,095,749	8,472,252	4,516,039	4,692,348	5,038,187	4,846,778	4,447,915	4,723,390	4,008,086	
CASH BALANCE *										
966,892	966,893	1,625,124	1,625,123	1,625,123	1,625,124	1,531,339	1,437,555	1,437,554	1,434,213	
2,002,252	1,924,277	1,953,141	1,982,438	2,012,175	2,042,358	2,072,993	2,104,088	2,135,649	2,167,684	
13,520,000	50,000	844,000	4,528,000	537,000	678,000	988,000	854,000	512,000	750,000	
355,250	360,579	365,987	371,477	377,049	382,705	388,446	394,272	400,186	406,189	
16,844,394	3,301,749	4,788,252	8,507,039	4,551,348	4,728,187	4,980,778	4,789,915	4,485,390	4,758,086	
RESERVE BALANCE FORECAST										
966,892	966,893	1,625,124	1,625,123	-	423,503	1,009,029	1,437,555	1,437,554	1,434,213	
106,629	1,673,753	1,651,202	1,709,986	-	-	-	11,944	637,391	1,326,345	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	(126,187)	-	-	-	-	-	
Total Cash Remaining										

* Cash balance doesn't include bond funding or bond funded projects

Los Alamos County Department of Public Utilities
10-Year Financial Forecast - FY2019 - FY1028
Customer Impact

Projected Average Bill for Residential

	ELECTRIC 500 kwh	GAS 75 therms (assumes \$0.30 variable)	WATER 6,000 gal	SEWER	Total (excludes refuse)	Total % annual Increase	Total cumulative % Increase
FY2018	\$69.60	\$49.25	\$39.30	\$47.45	\$205.60		
FY2019	\$69.60	\$49.25	\$41.76	\$51.25	\$211.85	3.04%	3%
FY2020	\$69.60	\$49.25	\$43.84	\$54.45	\$217.14	2.50%	6%
FY2021	\$69.60	\$49.25	\$45.71	\$57.17	\$221.73	2.11%	8%
FY2022	\$69.60	\$49.25	\$47.31	\$59.60	\$225.76	1.82%	10%
FY2023	\$69.60	\$49.25	\$48.49	\$61.69	\$229.03	1.45%	11%
FY2024	\$69.60	\$49.25	\$49.46	\$63.23	\$231.54	1.10%	13%
FY2025	\$69.60	\$49.25	\$50.33	\$64.49	\$233.67	0.92%	14%
FY2026	\$69.60	\$49.25	\$51.08	\$65.62	\$235.55	0.81%	15%
FY2027	\$69.60	\$49.25	\$51.85	\$66.61	\$237.30	0.74%	15%
FY2028	\$69.60	\$49.25	\$52.62	\$67.61	\$239.08	0.75%	16%

Utility Expense as a Percentage of Income

	Total Bill for Average Household	Los Alamos Median Household Income	Assumed Annual Income Increase	Percentage Needed to Pay Utility Bill
FY2018	\$205.60	\$107,031	2.5%	2.31%
FY2019	\$211.85	\$109,707	2.5%	2.32%
FY2020	\$217.14	\$112,449	2.5%	2.32%
FY2021	\$221.73	\$115,261	2.5%	2.31%
FY2022	\$225.76	\$118,142	2.5%	2.29%
FY2023	\$229.03	\$121,096	2.5%	2.27%
FY2024	\$231.54	\$124,123	2.5%	2.24%
FY2025	\$233.67	\$127,226	2.5%	2.20%
FY2026	\$235.55	\$130,407	2.5%	2.17%
FY2027	\$237.30	\$133,667	2.5%	2.13%
FY2028	\$239.08	\$137,009	2.5%	2.09%

Engineering New Expenditures & Expenses

- New Vehicle for SCADA Technician - deferred for two years
- Conservation contract w/ PEEC - \$35k
- Conservation Plan update – Consultant \$75k
- Otherwise flat – software license fees, plotter maintenance, training, minor equipment & interns

Engineering Capital Projects

- NM 502 – FY19
- Otowi Well #2 Well House and Equipment – FY19
- White Rock WWTP Design – FY19
- Pajarito Well No. 5 MCC Replacement – FY 19
- Water Production Automatic Valve Replacement – FY19
- Non Potable Water – Water Trust Board Applications
- El Vado Runner Repairs – FY19 & FY20
- LA Reservoir Road Stabilization (FEMA GRANT 75% / LAC 25%) – FY19 & FY20
- White Rock WWTP Construct – FY20
- Camp May Water – FY19 & FY20

Engineering Cost Savings Reforms

- Eliminated FTE Conservation
 - Conservation Plan update by consultant
 - Conservation public outreach 90% by contractor. Average over last 3 year \$30,000 vs FTE @ \$160k / year
- In-house Design vs Consultant
- Interns (\$15 / hour vs \$50+ / hour consultant)
- Engineering uses three vehicles slated for auction – maintenance costs only.
- Electric SCADA Transfer to DOE/LANL
 - DOE Infrastructure spurred New Cyber Security Regulations July 2016
 - LAC one FTE, requires two (\$968k in contractor support since 2015 / 20% LAC)
 - LANL has Cyber Security Resources.....natural transition

Engineering Major Time Commitments

- Capital Projects
- Prism – Job Costing, Work Orders and Payroll
- New Construction/Building Permits
- El Vado Hydroelectric Plant – Warranty Runner Repairs
- Development Review & Inspection of New Development:
 - A-19 White Rock / 160 Single Family Residences - Construction FY-19
 - A-12 & A13 / 150 Market Rate Apartments – Development Agreement/Due Diligence Period
 - DP Road A-9 / 70 Affordable Housing Apartments
 - 557 Oppenheimer / 16 Residential Condominiums
- Coordination with Outside Agencies
 - LANL/DOE
 - NMDOT
 - U.S.F.S.
 - FEMA
 - NMPRC
 - Office of the State Engineer

Review of Operating Expenses FY19 & FY20

- FY19 Abiquiu Increase – Increase in O&M (Pump & clean sumps, replace pumps & air compressors)
- FY19 Contract Administration (San Juan) Decrease - Operating Committee Travel expenses
- FY19 Load Control Decrease – Delayed Purchase of Distributed Energy Management System (DERMS) (FY2020 SCADA Patch Management eliminated)
- FY19 Transmission PNM Increase - associated with SVC credit reduction and PNM providing Schedules 5 & 6
- FY19 Transmission Other Decrease - LANL Transmission cost and negotiated alternative for LRS reserve requirement
- FY19 Purchase Power Decrease - elimination of spinning reserve and flat forecast for LAPP and SK
- FY19 Photo Voltaic Array Decrease - O&M at Battery and PV site
- FY19 San Juan Operations small Decrease with last planned 45 day outage (FY2020 No planned outages)
- FY20 Laramie River Station Decrease in FY2020 resulting from environmental upgrades being completed
- FY19 SMR Project Increase - Licensing Period Phase 1 over FY19 & FY20

Overall Operating Expense – Decrease in Budget (FY18 \$39,925,226) (FY19 \$38,449,542) (FY20 \$37,638,881)

Power Supply Budget FY2019

Capital Projects

1. El Vado Warranty Work
2. Community Solar Garden
3. SCADA upgrades

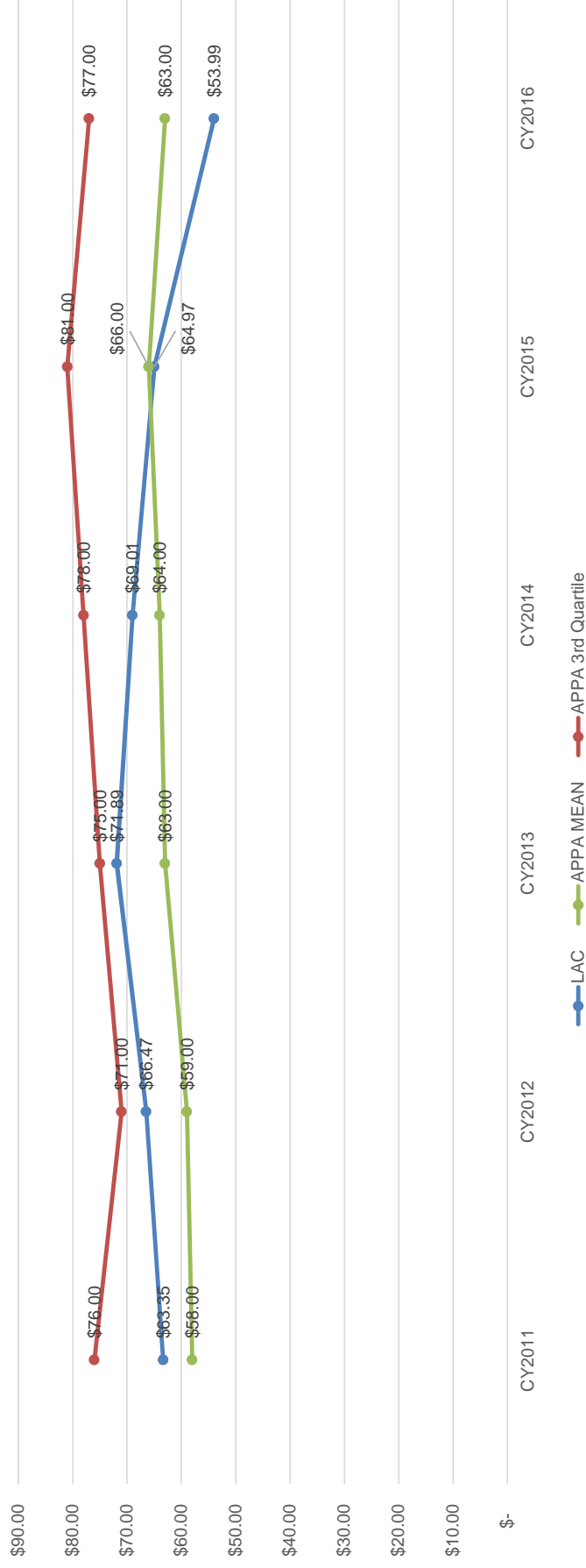
Cost Savings & Cost Avoidance

1. Terminated Membership with SRSG (approx. \$700k)
2. LRS Alternative reserve requirement (approx. \$100k)

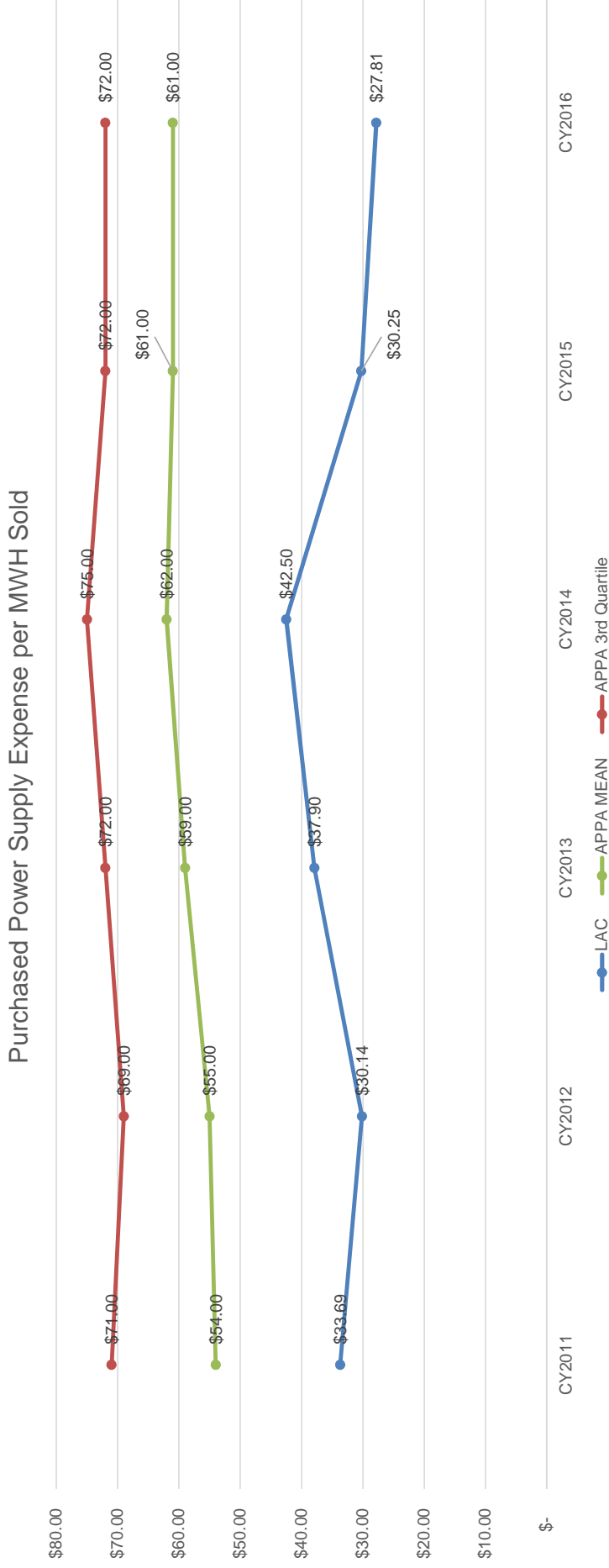
Major Efforts

1. Implementing Board Adopted Policy Initiatives
2. Carbon Free Power Project
3. Energy Storage Systems – Lead Acid and Sodium Sulfur Batteries
4. El Vado Contract Dispute on Warranty Items
5. Mountain West Transmission Group (Efforts with joining RTO SPP)
6. Solicit RFP for Block Power (2022 – 2025)

Total Power Supply Expense per MWH Sold



NOTE: Los Alamos County's Total Power Supply expense dropped in 2016 with the retirement of the original debt service at San Juan, Hydros and Laramie River Station. 2016 also includes the environmental upgrades at San Juan and a portion of the El Vado generator rewind project.



NOTE: Los Alamos County's Purchase Power Supply Expense is consistently lower than the APPA Mean because by definition this value is LAC's short term purchases to compliment the County's owned generation resources. The APPA Mean represents utilities our size (5k – 10k), hedging market volatility through long term block power purchases which include a risk premium above short term purchases.

1. Expected Expenditures:

Flat when compared to last year but we will have to carry-over several projects from FY18 which we won't finish, including the LASS substation feeder installation and the White Rock substation Upgrade

New Equipment Purchases: None but expecting to receive a new digger derrick ordered during FY 2018.

Expected O&M:

- Roughly 90% of department's work is preventive O&M work;
- We have an active OH maintenance crew replacing power poles, cross-arms, and revamps (retirement and replacement of OH wire);
- We have an UG maintenance crew replacing segments of the underground system with historical failures;
- We have an UG construction crew who focuses on capital based projects to replace segments of the underground system with historical failures;

2. Capital projects expected to participate in:

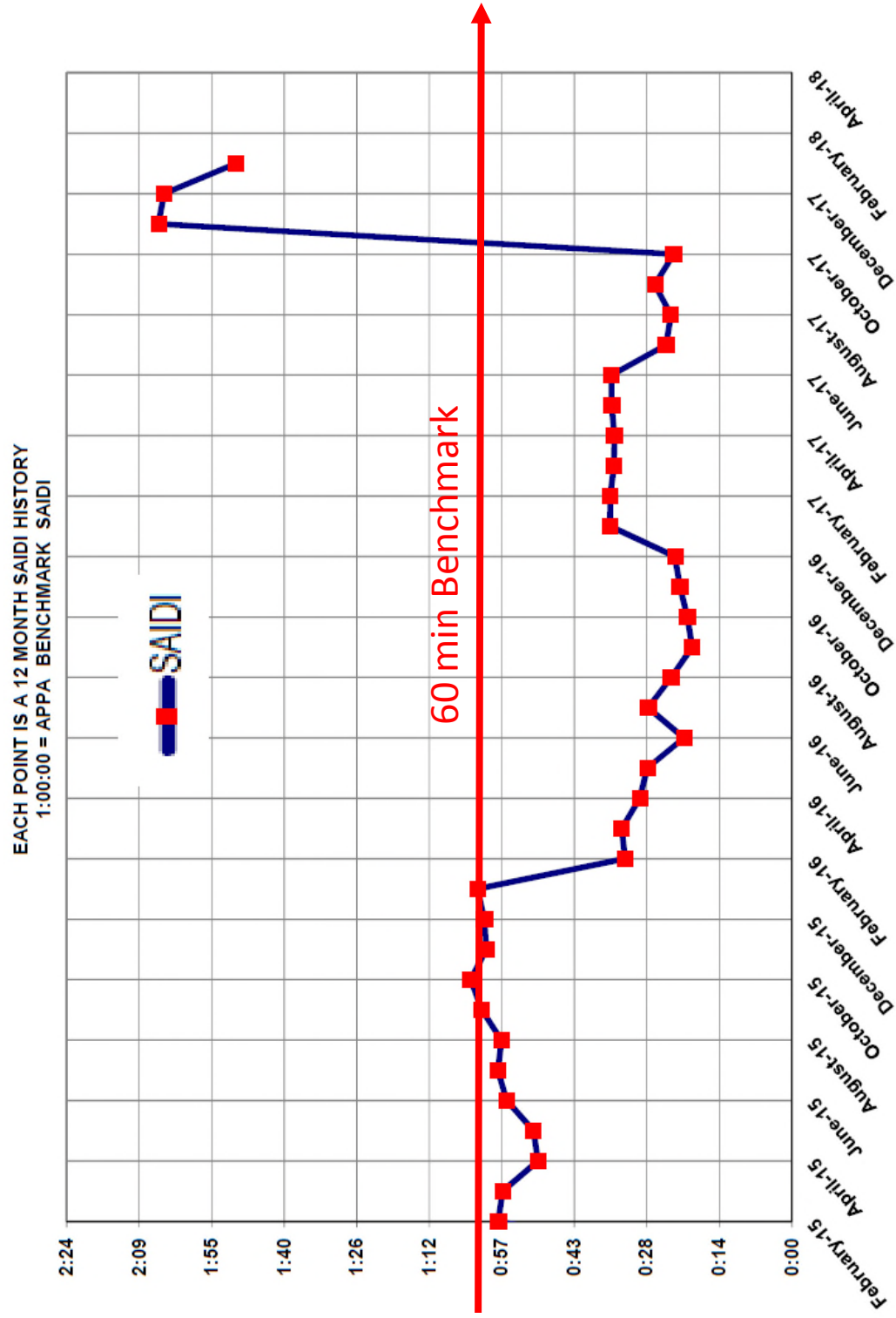
- **LASS Project:** Carry-over from FY-18; Coordinate feed-in from LANL's TA-3 Substation, energize and commission substation, install 3 miles of UG feeders,
- **White Rock Substation switchgear replacement:** Carry-over from FY 18, Remove old 2-feeder switchgear and add new 3 feeder switchgear;
- **NM 502 Project:** Install new 0.75 mile of 3 Phase UG feeder with multiple manholes, switchgear, etc.; essentially relocate main power line from north side of 502 to south side of 502.
- **Smart Meter Project:** Carryover from FY 18, the department will replace all commercial account meters; some large power accounts may require relocating or upgrading the CTs requiring after-hour 2-4 hour power outages. (Now would be the time to schedule these upgrades).

3. Cost Savings Measures or Reforms:

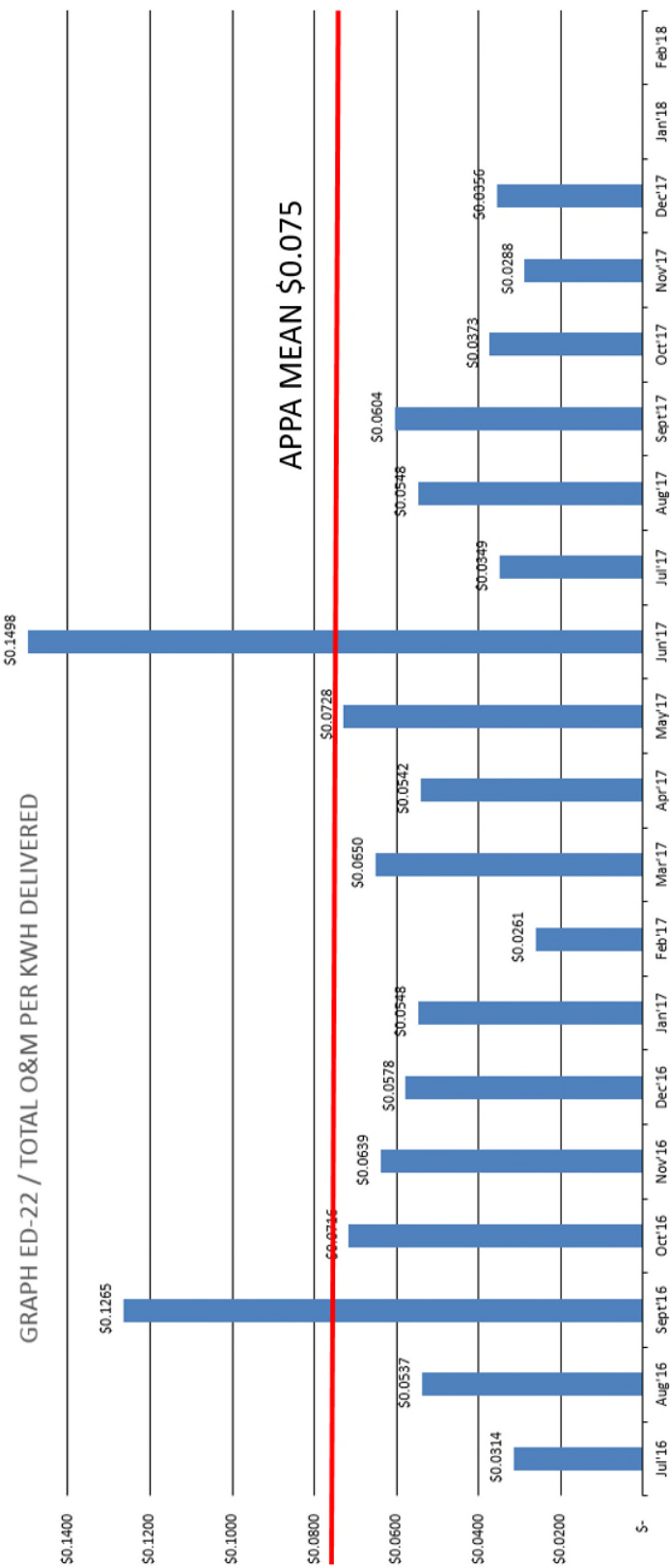
- **Elec Reliability Plan, Asset Management Program:** As indicated in the past, the majority of the department's annual projects are preventive maintenance; i.e. replacement of OH distribution components that are operating near or past their useful life such as poles, cross-arms, etc. For UG, replace segments of the grid which have a history of past failures. The purpose is to replace those components, which not replaced, will fail and cause power outages. *Cost Savings: What is the cost savings of preventing power outages to maintain a SAIDI under 1 hour?*
- **LASS Project:** We don't believe this critical project, which has to be constructed, could have been undertaken by contracting out the project. It has taken 3 staff member resources, likely 1.5 FTE over the last several years. Coordinating the work between ED, County Attorney, Eco Station, NMED, LANL Utilities, NNSA, DOE Attorney, etc. *Cost Savings: What is the cost of not having the LASS substation and remaining on a single substation source?*
- **Pole Agreement:** Signed a new Agreement with 1 attaching utility and changed fee schedule from # Poles to # Attachments, increase rate 400% to reflect current rates. Annual revenue increase \$40K for 1 attaching utility, expectation is to have the same terms with other attaching utilities.

- 4. Major Projects that will consume time:** refer to major Projects, item
- LASS Substation: still planning how to terminate the 3 miles of underground, i.e. where to splice (non-removable) versus terminating (removable), where to riser to parallel circuits; Program relays and ensure the over-current protection and coordination.
 - TA-3 Substation impact on County: Ensure the new fault currents produced by the TA-3 substation will NOT negatively impact the County, there are MAJOR hurdles to work through still under discussion with LANL/NNSA.
 - White Rock Substation: Project manage the removal and installation;
 - Smart Meters: Confirm the existing CT ratio on large power accounts to determine if they should be replaced (or not).
 - PRISM: Will affect the entire department.

5. SAIDI Bench Mark



5. O&M Bench Mark from 2016 APPA Manual systems under 10,000 Customers



Department of Public Utilities

Board of Public Utilities

**FY19 & FY20 Budget
Presentation**

Water Production (WP)

February 21, 2018

1. EXPECTED EXPENDITURES – WATER PRODUCTION

- No major new O&M initiatives beginning in FY19 or FY20 are planned.
- One minor new vehicle in both FY19 & FY20. Routine utility vehicle replacements of existing vehicles.
- Continued routine O&M; including well and booster station daily inspections.
- Continued improvement of the asset management system, field forms and GIS database.
- There are no major increases or decreases in any area of the budget from FY18 to FY19 or FY20.

2. CIP PROJECTS – WATER PRODUCTION

- FY19: LA Reservoir Road Stabilization Project. 75% FEMA grant funded. Eliminate future road erosion and improve protection of new NP system pipeline.
- FY19: Otowi Well # 2 well house and pump equipment.
- FY19: Pajarito Well # 5 motor control center replacement of obsolete equipment with code compliance issues.
- FY19: Auto Valves # 10 & 11 rehabilitation to replace failed auto control actuators to re-establish auto control functionality.
- FY20: Update Energy & Water Conservation Plan (33.33% share with GA & EP).
- FY20: If WTB Funded –NP system storage upgrade and multiple minor service connections.

3. COST SAVING REFORMS – WATER PRODUCTION

- FY17: Reduction of one full time permanent FTE. Annual budget savings = \$75,000. Coincident with increased NP system O&M responsibilities:
 - Booster Stations increased from 1 to 3.
 - Storage Facilities increased from 3 to 6.
 - Pipeline Miles increased from 7.4 to 16.5.
 - SCADA Stations increased from 4 to 8.
 - PRV Stations increased from 0 to 3.

4. EXPECTATIONS OF MAJOR ITEMS – WATER PRODUCTION

- No major internal water distribution division initiatives in FY19 or FY20 are expected to take up significant new time.
- Conversion to the new Tyler MUNIS software system, through the PRISM project, is expected to take significant time for the field crews and supervisors to adjust to the new system – especially during the first half of FY19.

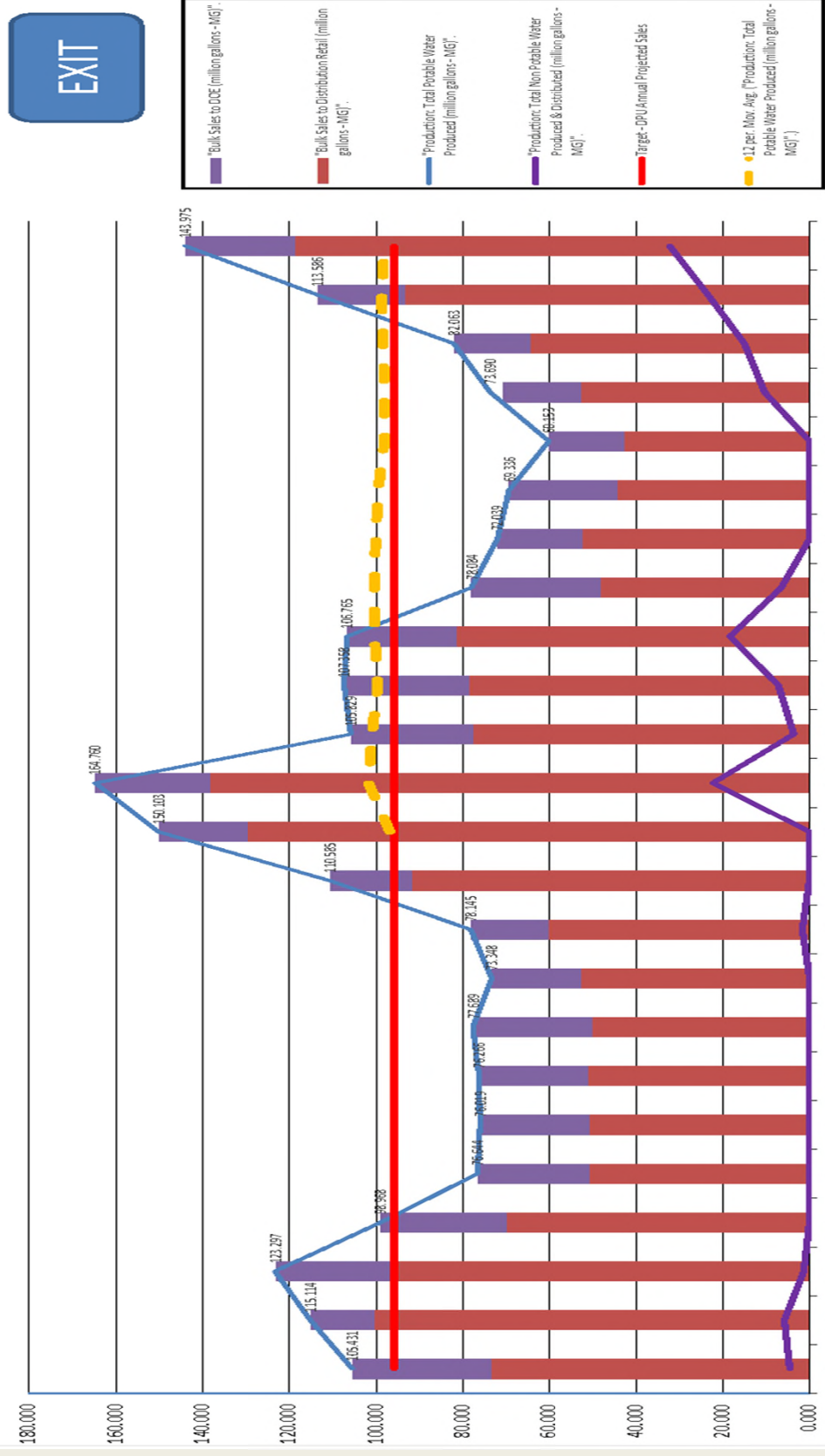
5. BENCHMARKED PERFORMANCE MEASURES

– WATER PRODUCTION

- Graph 13 – Total Potable and NP Water Produced in Million Gallons. 12-month moving average trend line at the end of the previous full year (FY17) was only very slightly above projected sales volume. No national standard. Internal year over year comparison plus comparison between projected and actual sales.
- Graph 14 – Water Main Breaks per 100 Miles of Pipeline. AWWA national standard. Potable System Only this graph.
- Graph 16 – Gallons per Capita per Day. AWWA national standard. DPU Conservation Goal.

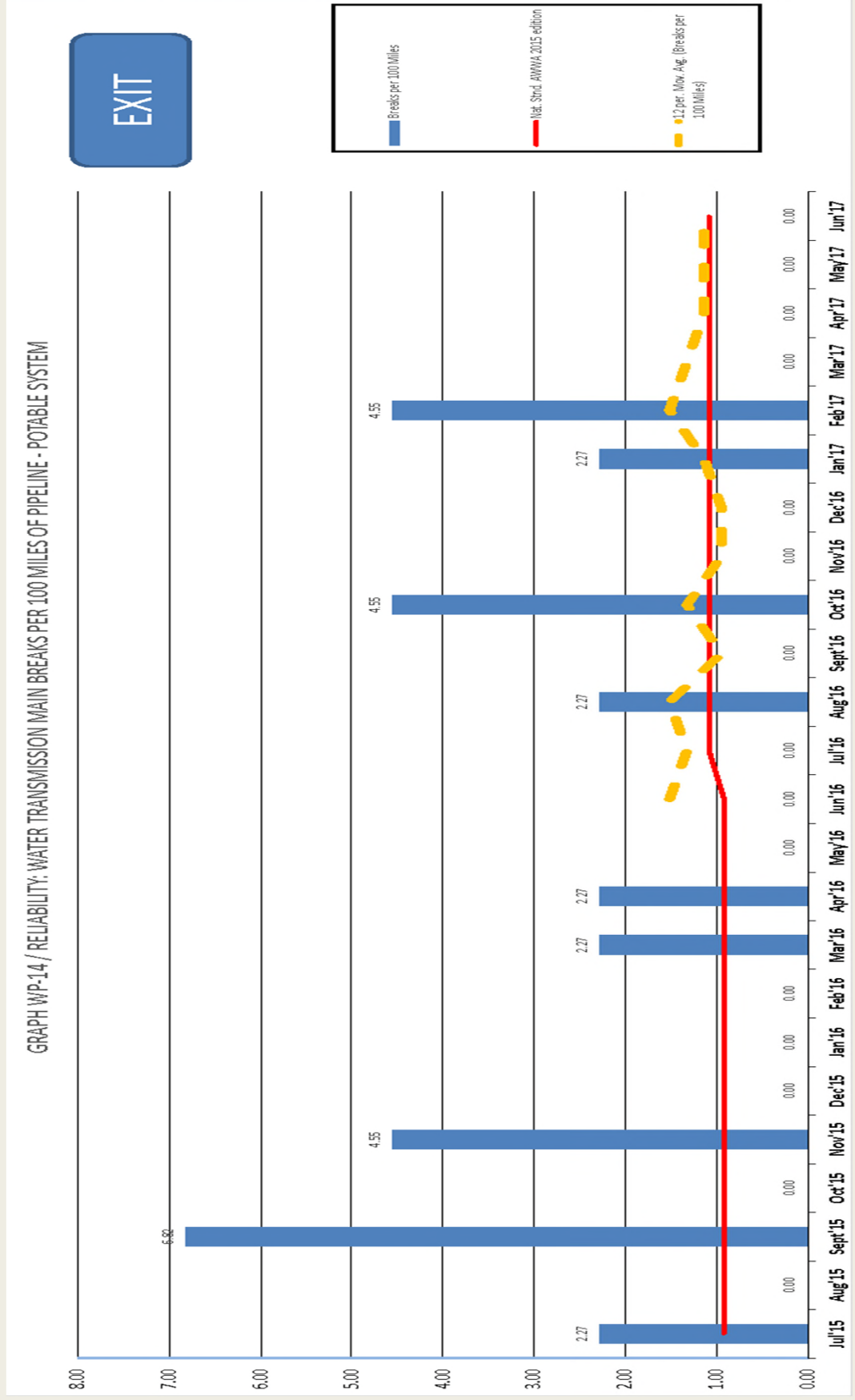
Water Produced

GRAPH WP-13/ POTABLE WATER PRODUCED AND NON POTABLE WATER PRODUCED & DISTRIBUTED



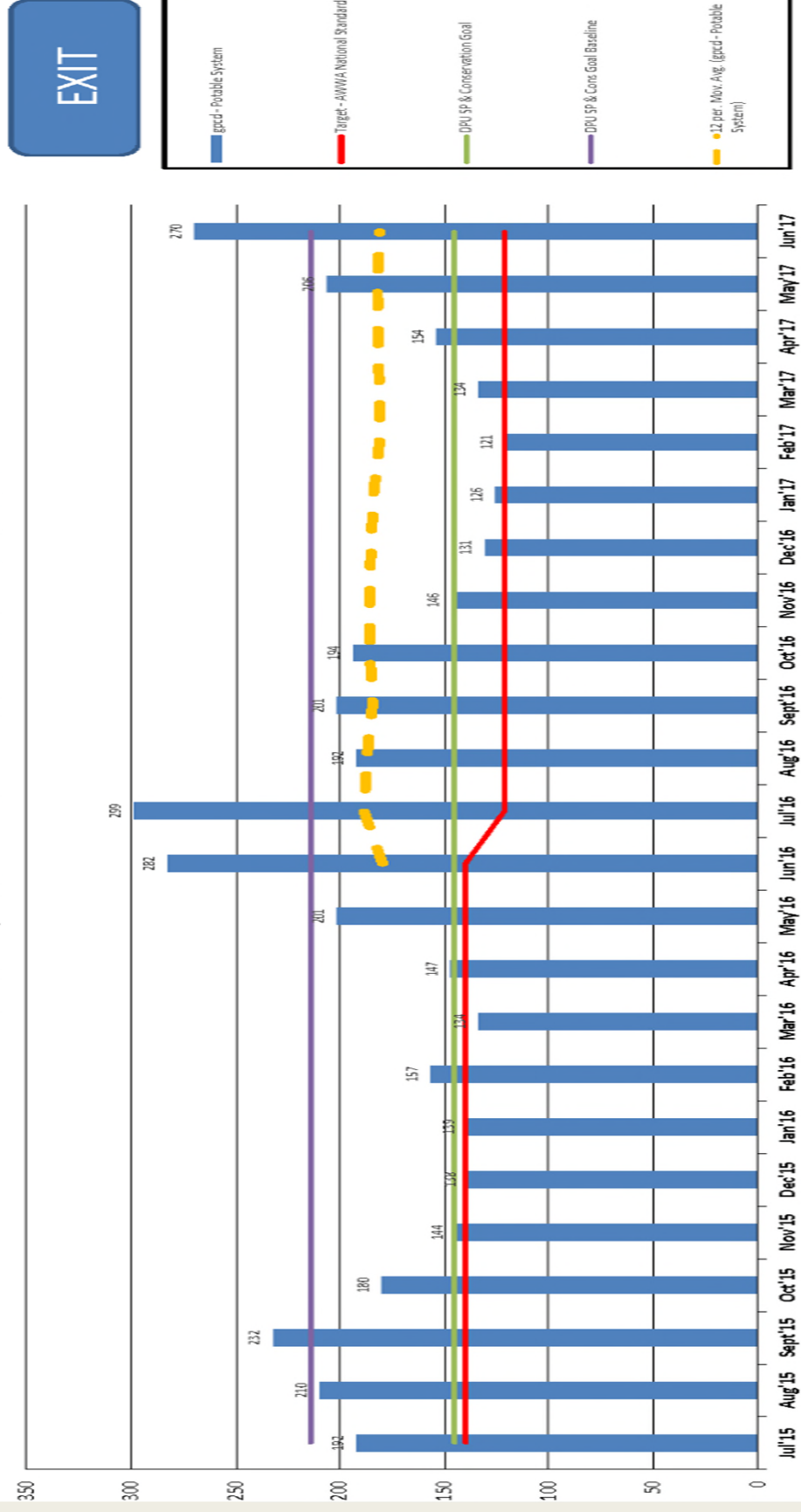
EXIT

Water Main Breaks



Gallons per Capita Day

GRAPH WP-16 / CONSERVATION: GALLONS PER CAPITA PER DAY - POTABLE SYSTEM



Department of Public Utilities

Board of Public Utilities

**FY19 & FY20 Budget
Presentation**

Water Distribution (DW)

February 21, 2018

1. EXPECTED EXPENDITURES – WATER DISTRIBUTION

- No major new O&M initiatives beginning in FY19 or FY20 are planned.
- Continued routine O&M; including PRV (pressure regulating valve) station maintenance upgrades begun in FY18.
- Continued improvement of the asset management system, field forms and GIS database.
- There are no major increases or decreases in any area of the budget from FY18 to FY19 or FY20.

2. CIP PROJECTS – WATER DISTRIBUTION

- AMI Project implementation during FY19 and FY20. Continuation of water meter replacement program using in-house staff.
- One possible capital project that might impact the Water Distribution Division during FY19 or possibly FY20 is the NM Hwy 502 project, which has a component of water distribution. This project has been pre-funded in an earlier fiscal year but, while delayed multiple times may actually be constructed in FY19 or FY20. Crew time for inspection, ties to the existing system and general project construction administration may take some field crew, supervisory and engineering hours from normal planned duties in FY19 and/or FY20.

3. COST SAVING REFORMS – WATER DISTRIBUTION

- Begun in FY18: Enhanced pressure regulating valve (PRV) station maintenance in lieu of outright replacement. Potential annual efficiency savings = \$37,500 over the existing 20-year CIP Plan.
- FY20: Defer two major vehicle replacements for a few years because vehicle condition still adequate for required use.

4. EXPECTATIONS OF MAJOR ITEMS

WATER DISTRIBUTION

- No major internal water distribution division initiatives in FY19 or FY20 are expected to take up significant new time.
- Conversion to AMI (Automated Meter Infrastructure) is expected to take time away from the normal water distribution field crew duties during the AMI implementation.
- Conversion to the new Tyler MUNIS software system, through the PRISM project, is expected to take significant time for the field crews and supervisors to adjust to the new system – especially during the first half of FY19.
- Revision to water meter change out program from a 5-year \$500,000 per year program to an 8-year \$300,000 per year program.

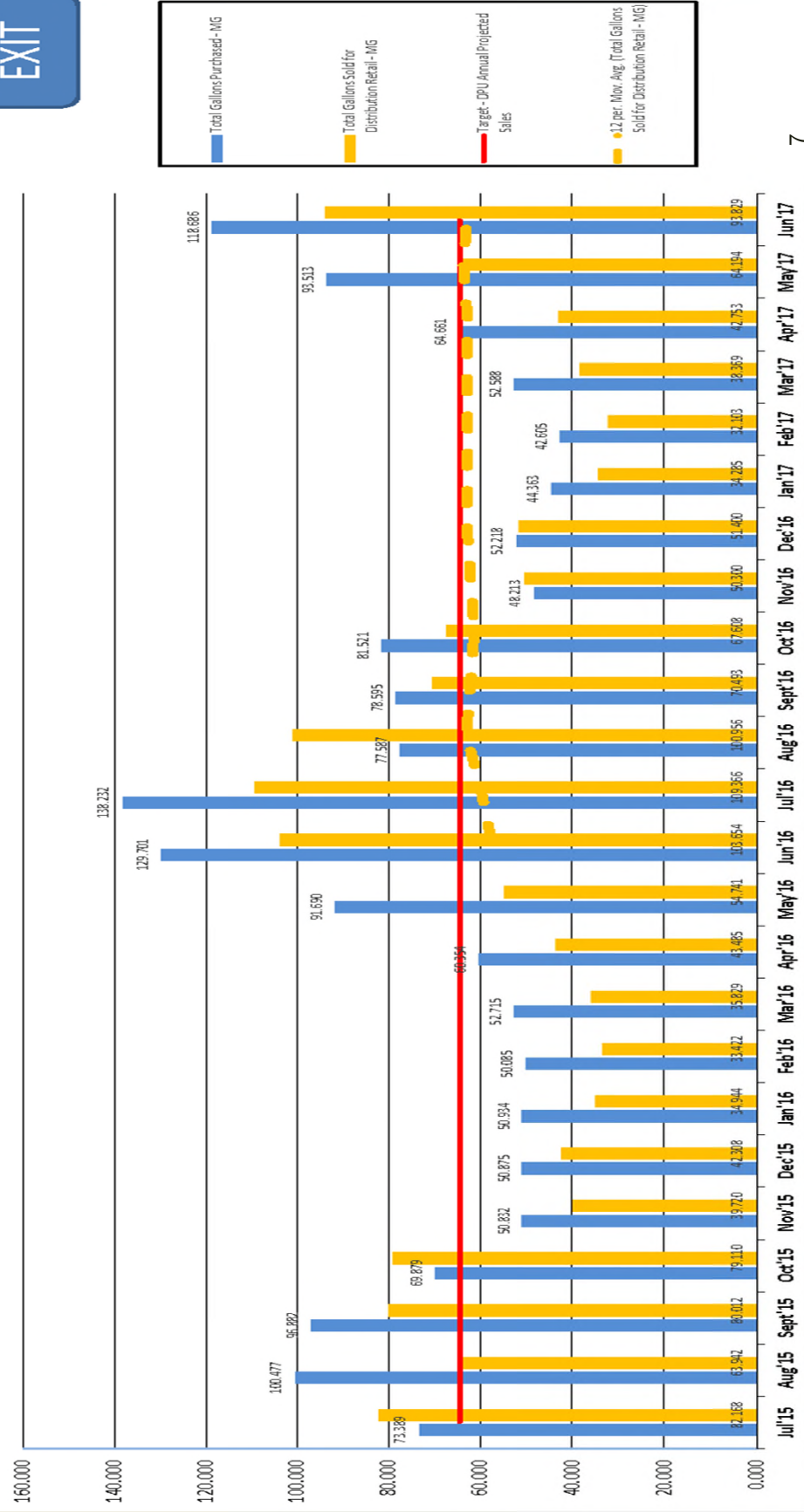
5. BENCHMARKED PERFORMANCE MEASURES

WATER DISTRIBUTION

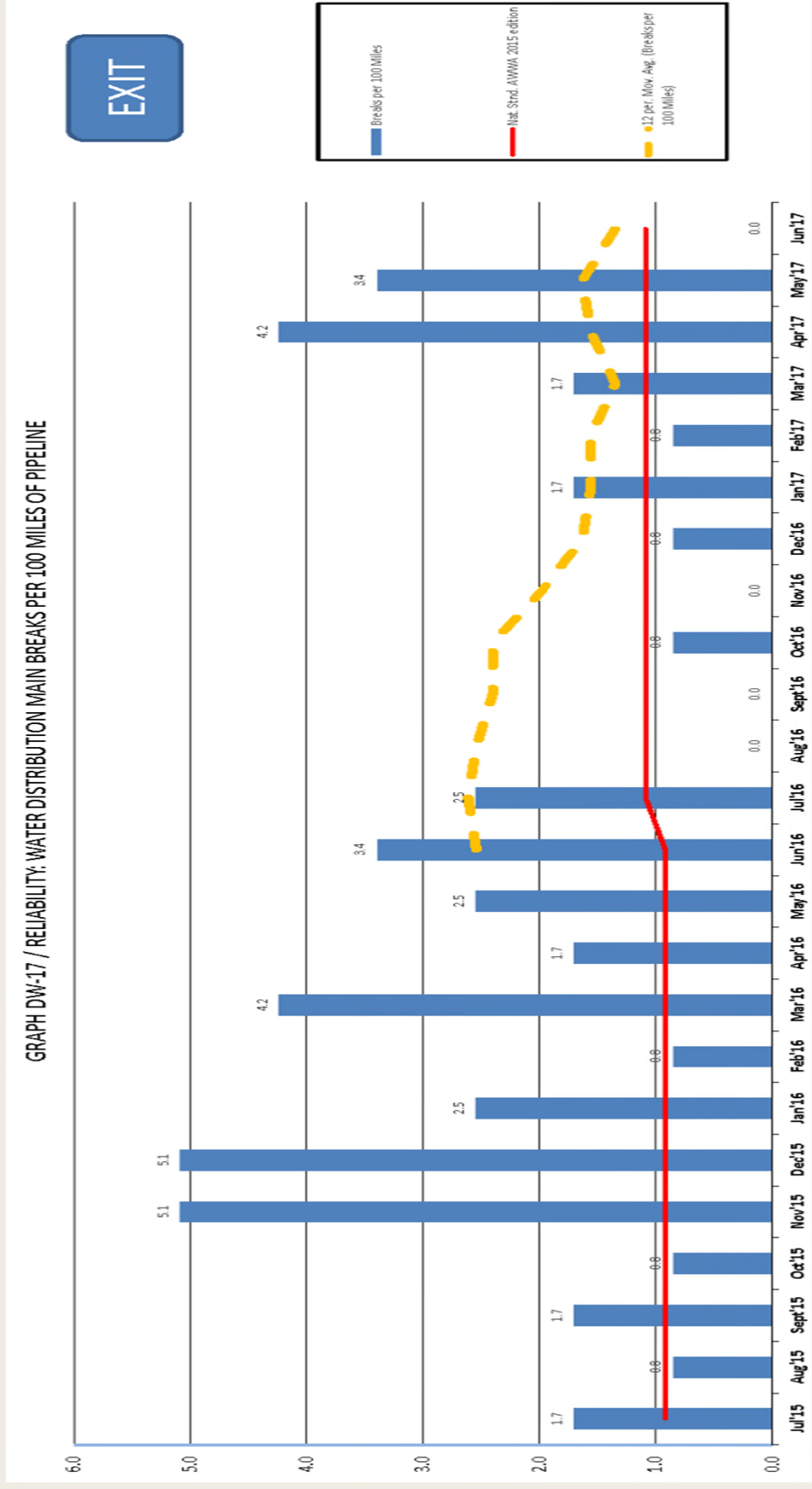
- Graph 16 – Total Gallons Purchased for Distribution. 12-month moving average trend line at the end of the previous full year was only very slightly below projected sales volume. No national standard. Internal year over year comparison plus comparison between projected and actual sales.
- Graph 17 – Water Main Breaks per 100 Miles of Pipeline. AWWA national standard.
- Graph 18 – Unaccounted for Water Loss. FY17 full year data set = 14.6%. EPA national standard = 10.66%. DPU Conservation Plan goal = 5.33%.

Gallons Purchased for Distribution System

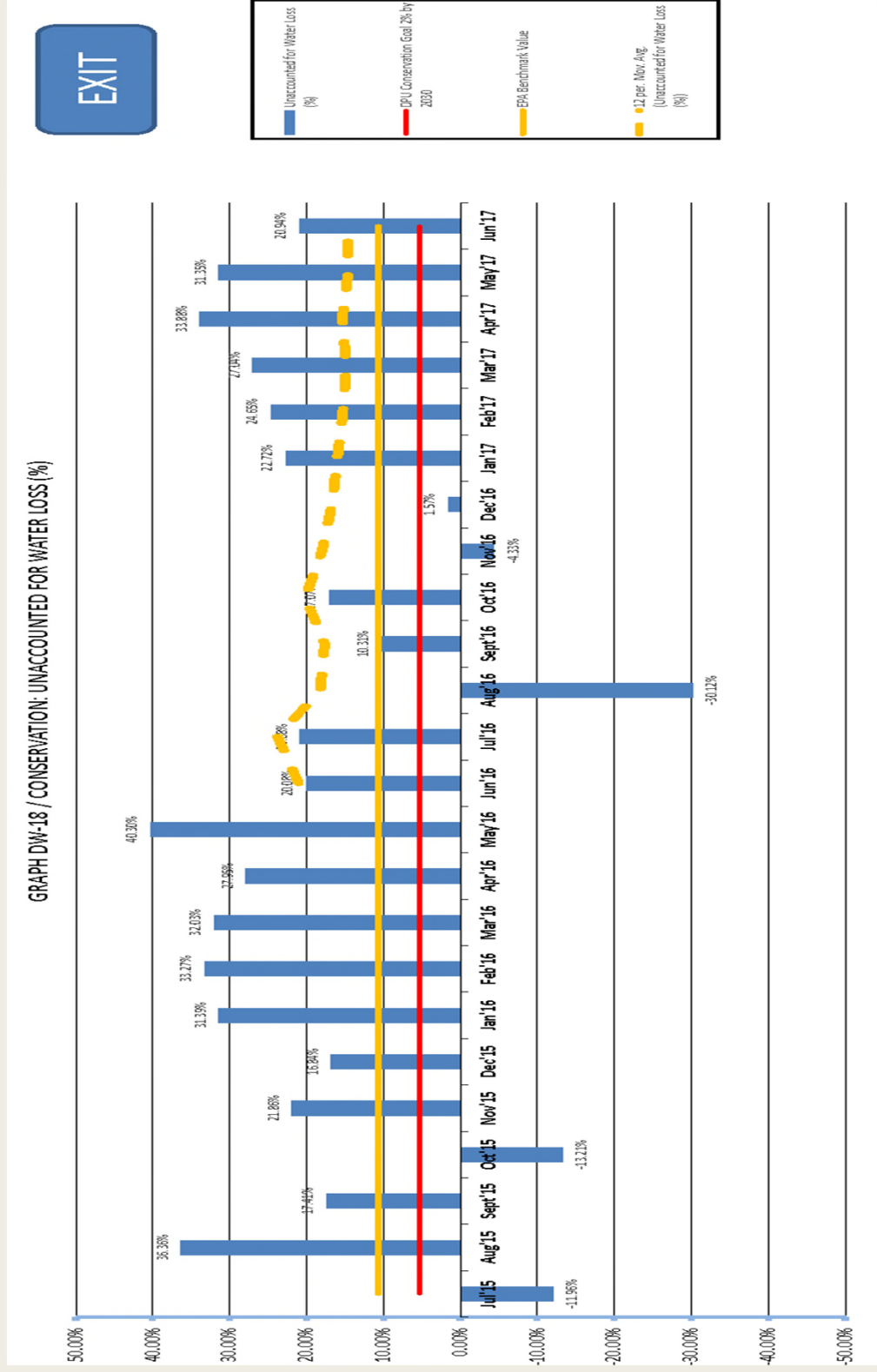
GRAPH DW-16 / PURCHASES: TOTAL GALLONS PURCHASED FOR DISTRIBUTION (Million Gallons - MG)



Water Main Breaks per 100 Miles of Pipe



Unaccounted For Water Loss



Department of Public Utilities

Board of Public Utilities

FY19 & FY20 Budget Presentation

Gas Distribution (GA)

February 21, 2018

1. EXPECTED EXPENDITURES – GAS DISTRIBUTION

- No major new O&M initiatives beginning in FY19 or FY20 are planned.
- No major new equipment or vehicles.
- Continued routine O&M; including in-house gas leak survey begun circa FY15.
- Continued improvement of the asset management system, field forms and GIS database.
- There are no major increases or decreases in any area of the budget from FY18 to FY19 or FY20.

2. CIP PROJECTS – GAS DISTRIBUTION

- AMI Implementation during FY19 and FY20 (Carryover from FY18).
- FY20: Update Energy & Water Conservation Plan (33.33% share with WP & EP).
- There is one possible capital project that might impact the Gas Distribution Division during FY19 or possibly FY20. The NM Hwy 502 project, which has a component of gas distribution, has been pre-funded in an earlier fiscal year but has been delayed multiple times and this project may actually be constructed in FY19 or FY20. Crew time for inspection, tie-ins to the existing system and general project construction administration may take some field crew, supervisory and engineering hours from normal planned duties in FY19 and/or FY20.

3. COST SAVING REFORMS – GAS DISTRIBUTION

- Begun circa FY15: Complete gas leak surveys using in-house staff in lieu of outside contractor. Elimination of both purchasing/contracting expenses and contractor overhead expenses. Doable because DPU acquired robust field detectors (2 each for \$17,000) via grant funding. Annual efficiency savings = \$10,000.
- Begun in FY18: Reconfigure the design of gas pressure regulating valve (PRV) stations. Elimination of dual redundancy – going from 4 valves to 2 valves per station. Doable because all gas zones now are looped with at least two independent feeds. Savings in FY18 = \$10,000. Annual efficiency savings = \$5,000.

4. EXPECTATIONS OF MAJOR ITEMS

GAS DISTRIBUTION

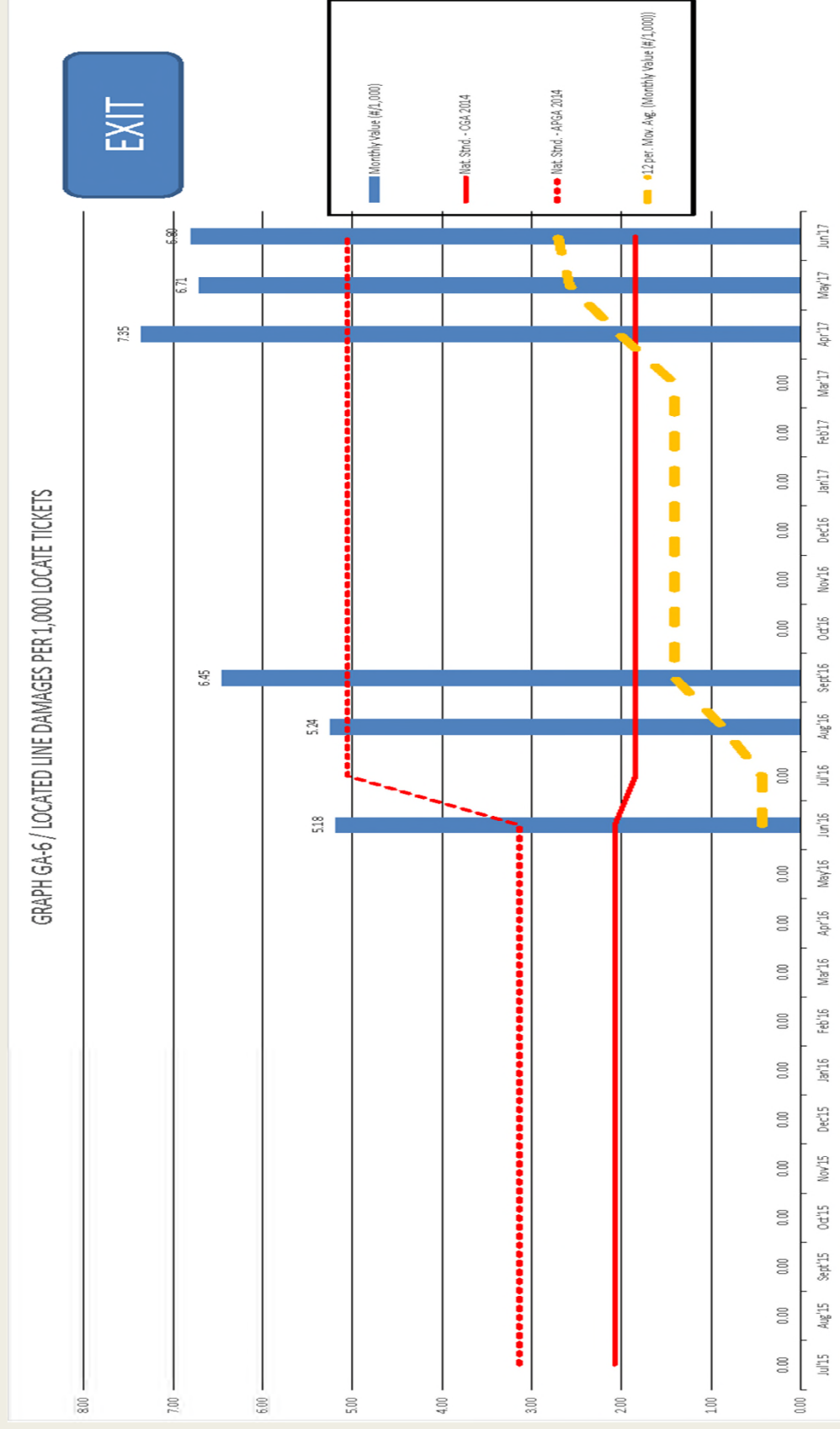
- No major internal gas distribution division initiatives in FY19 or FY20 are expected to take up significant new time.
- Conversion to AMI (Automated Meter Infrastructure) is expected to take time away from the normal gas distribution field crew duties during the AMI implementation.
- Conversion to the new Tyler MUNIS software system, through the PRISM project, is expected to take significant time for the field crews and supervisors to adjust to the new system – especially during the first half of FY19.

5. BENCHMARKED PERFORMANCE MEASURES

GAS DISTRIBUTION

- Graph 6 – Damages per 1,000 Locate Tickets. 12-month moving average trend line at the end of the previous full year (FY17) was better than the national standard promulgated by Common Ground Alliance but worse than the national standard promulgated by the American Public Gas Association (APGA).
- Graph 15 – O&M Expenditures per Account. Internal comparison year over year. No national standard.
- Graph 17 – Revenue per Therm Delivered. Consistently less revenue per therm delivered in the DPU system compared to the APGA national average standard. Probable cause due to the smaller size of our system and the existing O&M efficiencies developed over the years.

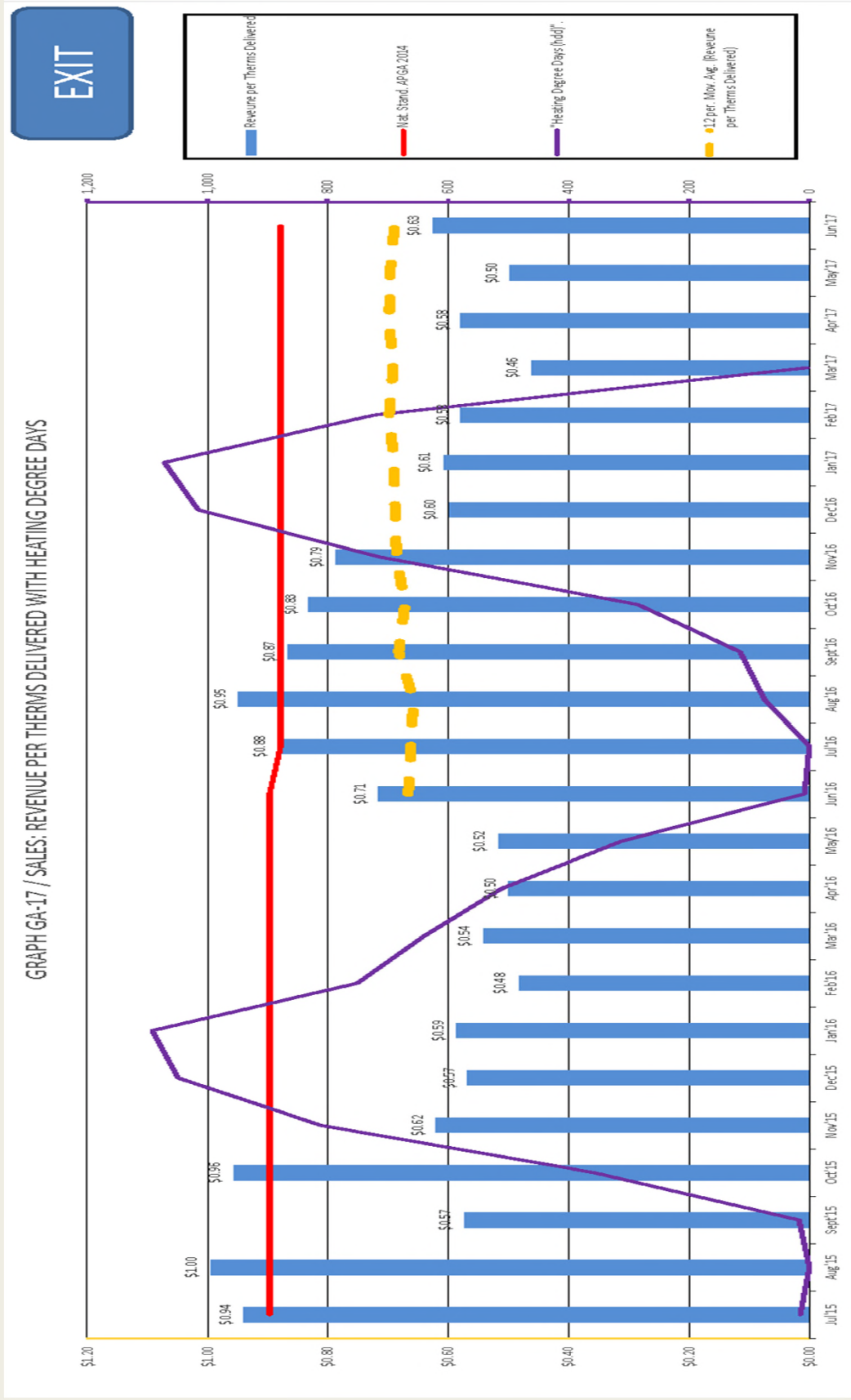
Gas Line Locate Damages



O&M Expenditures per Account



Revenue per Therm Delivered



Department of Public Utilities

Board of Public Utilities

**FY19 & FY20 Budget
Presentation**

Wastewater Treatment (WT)

February 21, 2018

1. EXPECTED EXPENDITURES

WASTEWATER TREATMENT

- Major R&R expenditures in FY19 & FY20 are planned at the LA WWTP in lieu of a single CIP project with outside loan financing. FY19 & FY20 planned projects are upgrades or repairs to the influent screen, UV disinfection control system, R&R of pipeline deficiencies and compost facility safety/site upgrades.
- One major vehicle replacement is scheduled for FY19. (Dump Truck for bio-solids handling).
- Continued routine O&M for both WWTP's.
- Only major increase in the O&M area of the budget from FY18 to FY19 or FY20 is the \$250,000 per year described in item 1 above.

2. CIP PROJECTS – WASTEWATER TREATMENT

- White Rock WWTP Replacement Project. Design in FY19 & construction in FY20.

3. COST SAVING REFORMS **WASTEWATER TREATMENT**

- FY16: Replace one of the original three aeration blowers at the LA wwtp with a new more energy efficient blower. Initial cost for purchase and in-house installation = \$85,000. Annual energy efficiency savings = \$11,000.
- FY19: Deferral of the addition of filtration equipment at the LA WWTP until WR WWTP project is completed. Deferred CIP Expenditure = \$1,400,000.
- FY19: Defer a major vehicle replacement for a few years because vehicle still adequate for required use.

4. EXPECTATIONS OF MAJOR ITEMS

WASTEWATER TREATMENT

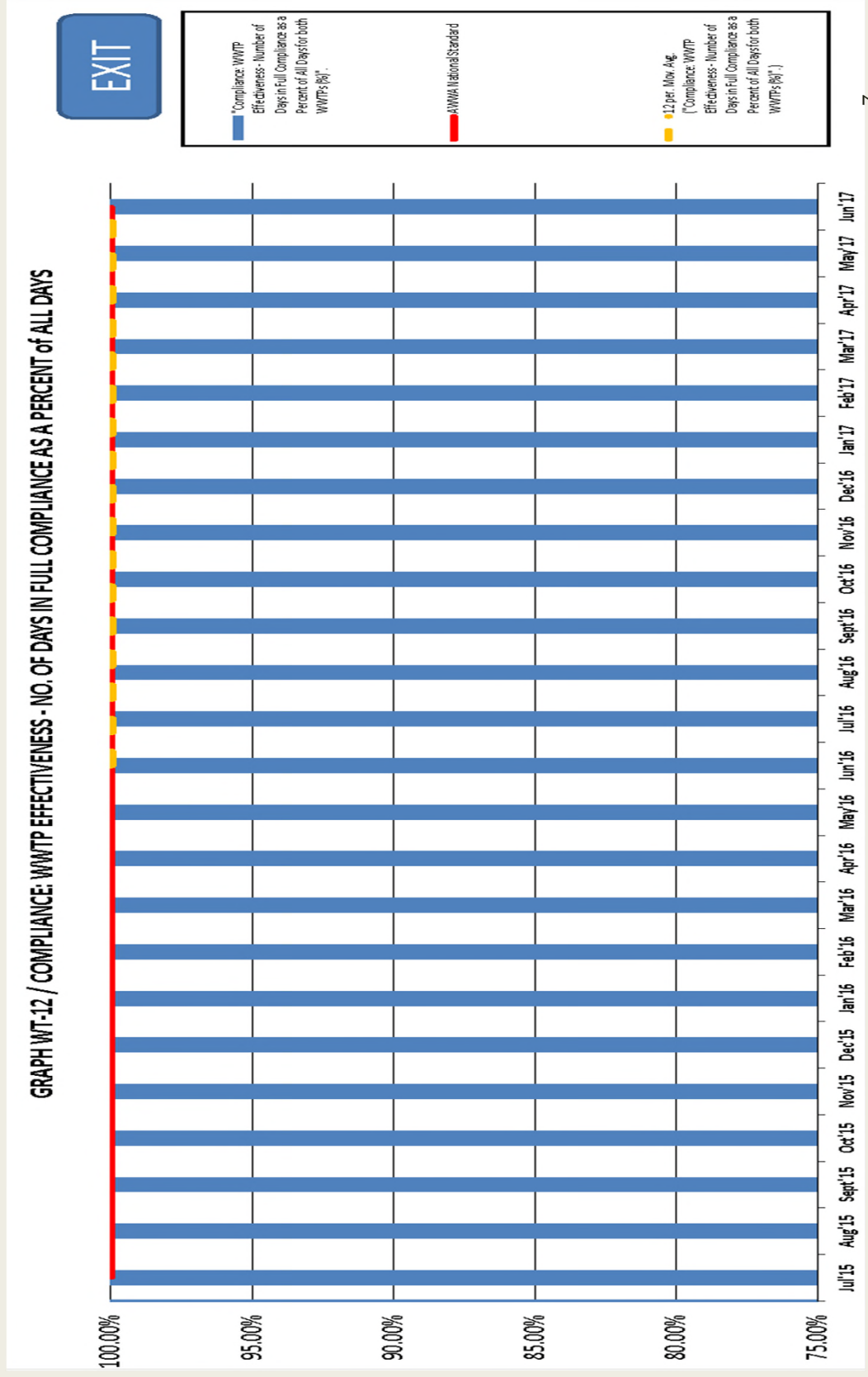
- Replacement of the White Rock wwtp is expected to take up a significant amount of new additional supervisory and engineering staff time in both FY19 & FY20.
- Conversion to the new Tyler MUNIS software system, through the PRISM project, is expected to take significant time for the field crews and supervisors to adjust to the new system – especially during the first half of FY19.

5. BENCHMARKED PERFORMANCE MEASURES

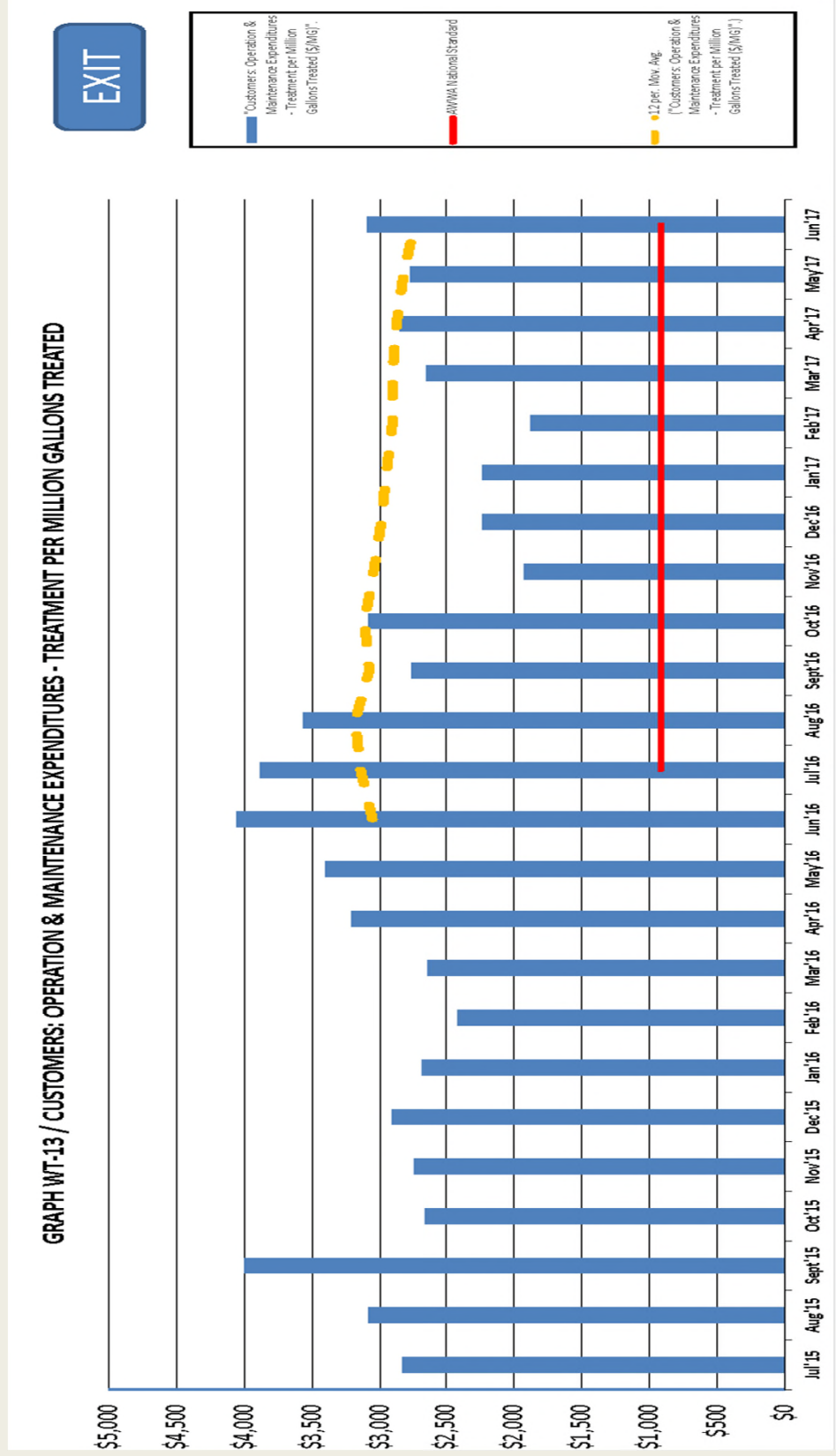
WASTEWATER TREATMENT

- Graph 12 – WWTP Effectiveness / Compliance. AWWA national standard.
- Graph 13 – O&M Expenditures per Million Gallons Treated. AWWA national standard. 12-month moving average trend line moving in the correct direction. DPU will probably never meet or better this national standard due to having two relatively small volume wwtp's but this performance measure is a valuable tool to review the operational efficiency of both wwtp's.
- Graph 15 – Total Energy Consumption per Million Gallons Treated. AWWA national standard. Again – DPU will probably never meet or better this standard but still a valuable performance measurement.

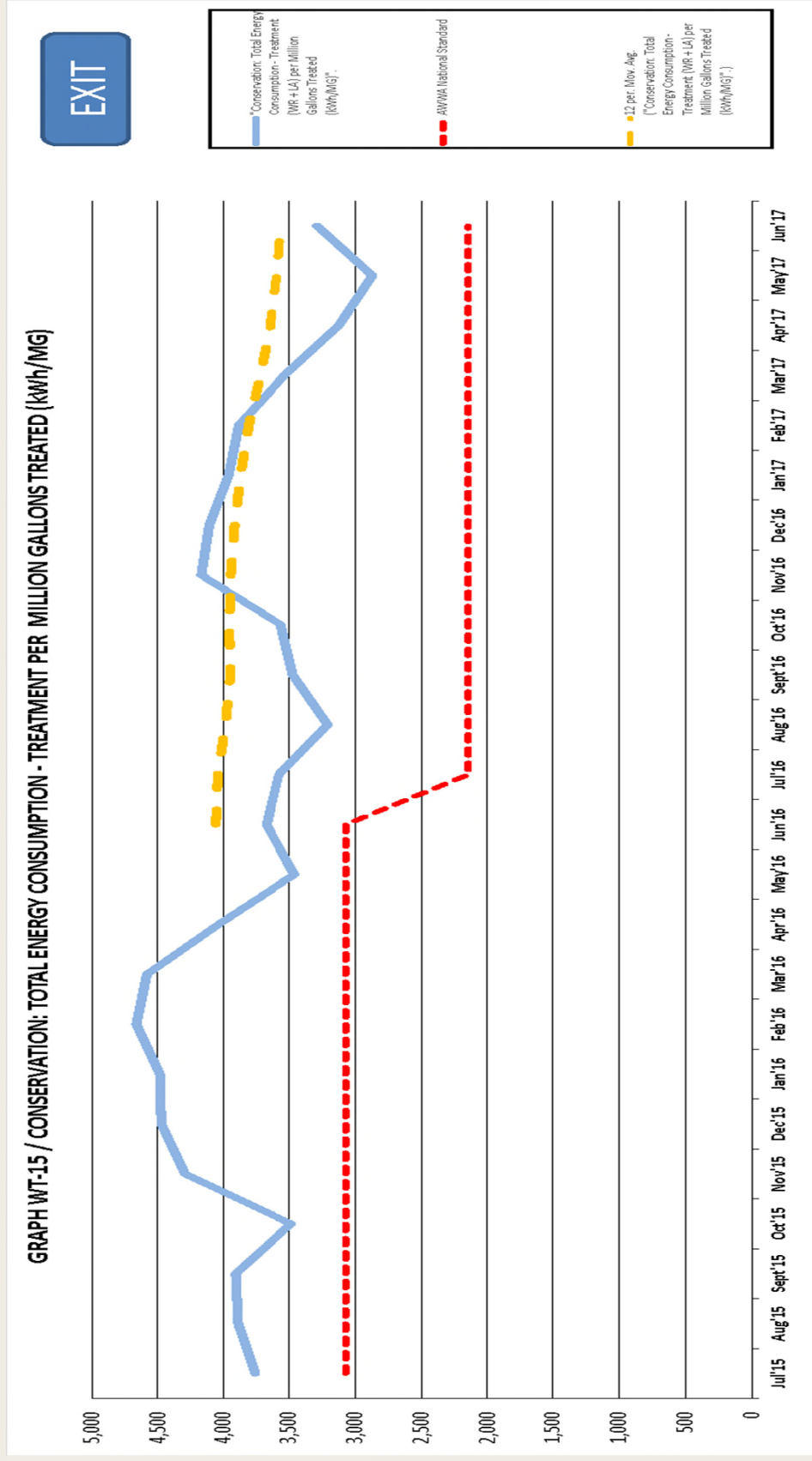
NPDES Compliance



O&M Expenditures per MG Treated



Energy Consumption per MG Treated



Department of Public Utilities

Board of Public Utilities

**FY19 & FY20 Budget
Presentation**

Wastewater Collection (WC)

February 21, 2018

1. EXPECTED EXPENDITURES – SEWER COLLECTION

- No major new O&M initiatives beginning in FY19 or FY20 are planned.
- Continued routine O&M; including SLS (sewer lift station) maintenance upgrades begun in FY18.
- Continued improvement of the asset management system, field forms and GIS database.
- There are no major increases or decreases in any area of the budget from FY18 to FY19 or FY20.

2. CIP PROJECTS – SEWER COLLECTION

- No CIP projects planned for FY19 or FY20.
- There is one possible capital project that might impact the Sewer Collection Division during FY19 or possibly FY20. The NM Hwy 502 project, which has a component of sewer collection, has been pre-funded in an earlier fiscal year but has been delayed multiple times and this project may actually be constructed in FY19 or FY20. Crew time for inspection, tie-ins to the existing system and general project construction administration may take some field crew, supervisory and engineering hours from normal planned duties in FY19 and/or FY20.

3. COST SAVING REFORMS – SEWER COLLECTION

- Begun FY17: Revise the CIP plan to reduce the number of CIP projects per year to better match budget realities and staff available to execute projects. Annual budget savings varied from year to year but were in the range of = \$175,000 to \$500,000.
- Begun in FY18: Enhanced sewer lift station maintenance. Potential reduction of CIP project SLS replacement schedule. Potential annual efficiency savings = \$87,500 over the existing 20-year CIP Plan.

4. EXPECTATIONS OF MAJOR ITEMS

SEWER COLLECTION

- No new major internal sewer collection division initiatives in FY19 or FY20 are expected to take up significant new time.
- Conversion to the new Tyler MUNIS software system, through the PRISM project, is expected to take significant time for the field crews and supervisors to adjust to the new system – especially during the first half of FY19.

5. BENCHMARKED PERFORMANCE MEASURES

– SEWER COLLECTION

- Primary Key Organizational Performance Measures:
 - Sewer Service Affordability – Average Annual Residential Monthly Sewer Bill as a Percentage of Median Household Income. AWWA national standard.
 - Total Wastewater System O&M Expenditures (Conveyance + Treatment) per Account. AWWA national standard.
 - O&M Expenditures (Conveyance) per 100 Miles of Main Pipeline. AWWA national standard.
 - Sewer Overflow Events per 100 Miles of Main Pipeline. AWWA national standard.
- Secondary Key Organizational Performance Measures:
 - 10 total secondary performance measures. 8 have national standard values for comparison.



County of Los Alamos

Staff Report

February 21, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 8.A
Index (Council Goals): BCC - N/A
Presenters: Board of Public Utilities
Legislative File: 10434-18

Title

Status Reports

Body

Each month the Board receives in the agenda packet informational reports on various items. No presentation is given, but the Board may discuss any of the reports provided.

Attachments

- A - Electric Reliability Report
- B - Accounts Receivables Report
- C - Safety Report (Including 2017 Year-End OSHA Incident Report)

STATUS REPORTS

ELECTRIC RELIABILITY

Los Alamos County Utilities



Electric Distribution Reliability

February 21, 2018

Stephen Marez
Senior Engineer

Twelve Month History	January 2018	
Total # Accounts	9045	
Total # Interruptions	22	
Sum Customer Interruption Durations	16647:04:00	hours:min:sec
# Customers Interrupted	7842	
SAIFI(APPA AVG. = 1.0)	.83	int./cust.
SAIDI (APPA AVG. = 1:00)	1:50	hours:min
CAIDI	2:13	hours:min/INT
ASAI	99.9991%	% available

- **SAIFI - System Average Interruption Frequency Index**

A measure of interruptions per customer (Per Year)

$$\text{SAIFI} = \frac{(\text{Total number of customer interruptions})}{(\text{Total number of customers served})}$$

- **SAIDI – System Average Interruption Duration Index**

A measure of outage time per customer if all customers were out at the same time (hours per year)

$$\text{SAIDI} = \frac{(\text{Sum of all customer outage durations})}{(\text{Total number of customers served})}$$

- **CAIDI – Customer Average Interruption Duration Index**

A measure of the average outage duration per customer (hours per interruption)

$$\text{CAIDI} = \frac{(\text{Sum of all customer outage durations})}{(\text{Total number of customer interruptions})} = \frac{\text{SAIDI}}{\text{SAIFI}}$$

- **ASAI – Average System Availability Index**

A measure of the average service availability (Per unit)

$$\text{ASAI} = \frac{(\text{Service hours available})}{(\text{Customer demand hours})} = \frac{8760 - \text{SAIDI}}{8760}$$

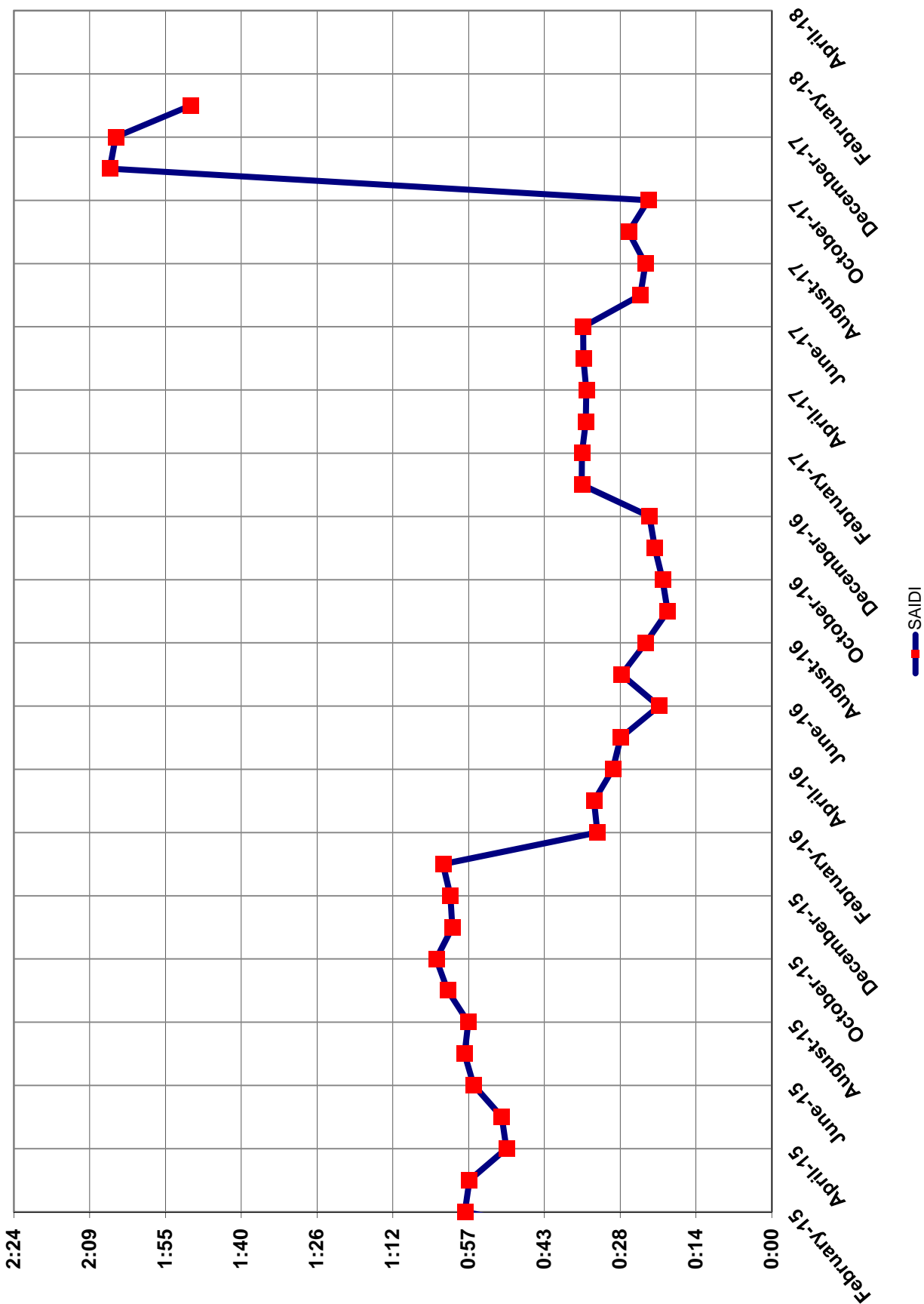
**Electric Distribution Reliability Study
Twelve Month Outage History**

**Prepared by Stephen Marez
Senior Engineer L.A.C.U.**

<u>Date</u>	<u>Call Rcd.</u>	<u>Circuit</u>	<u>Cause</u>	<u>Start Time</u>	<u>End Time</u>	<u>Duration</u>	<u>Customers Affected (Meters)</u>	<u>Combined Customer Outage Durations</u>	<u>Total Outage H:M:S</u>	<u>Running SAID</u>
3/6/2017	Utilities	WR1	OH Failure	8:00	9:30	1:30	5	7:30:00	7:30:00	0:00:03
4/27/2017	Utilities	16	URD Failure	9:00	10:00	1:00	70	70:00:00	77:30:00	0:00:31
4/29/2017	Utilities	16	URD Failure	0:00	5:00	5:00	7	35:00:00	112:30:00	0:00:45
5/6/2017	Utilities	WR1	Animal	9:35	10:30	0:55	30	27:30:00	140:00:00	0:00:56
5/15/2017	Utilities	16	URD Failure	12:15	13:15	1:00	40	40:00:00	180:00:00	0:01:12
5/6/2017	Utilities	WR1	Planned	9:00	12:00	3:00	10	30:00:00	210:00:00	0:01:24
6/18/2017	Utilities	14	URD Failure	15:15	15:30	0:15	539	134:45:00	344:45:00	0:02:17
6/27/2017	Utilities	17	URD Failure	11:30	12:30	1:00	4	4:00:00	348:45:00	0:02:19
7/26/2017	Utilities	WR1	URD Failure	6:50	10:30	3:40	10	36:40:00	385:25:00	0:02:33
8/12/2017	Utilities	EA4	OH Failure	14:30	15:00	0:30	5	2:30:00	387:55:00	0:02:34
9/10/2017	Utilities	16	URD Failure	17:00	18:50	1:50	40	73:20:00	461:15:00	0:03:04
9/19/2017	Utilities	14	URD Failure	2:45	3:35	0:50	18	15:00:00	476:15:00	0:03:10
9/19/2017	Utilities	14	URD Failure	7:45	9:00	1:15	80	100:00:00	576:15:00	0:03:49
9/19/2017	Utilities	14	URD Failure	7:45	14:15	6:30	45	292:30:00	868:45:00	0:05:46
10/5/2017	Utilities	15	Tree	16:00	16:15	0:15	10	2:30:00	871:15:00	0:05:47
10/27/2017	Utilities	18	Planned	8:30	9:30	1:00	1	1:00:00	872:15:00	0:05:47
11/24/2017	Dispatch	TC2	Supply line Failure	2:54	6:03	3:09	2264	7131:36:00	8003:51:00	0:53:06
11/24/2017	Dispatch	TC1	System Failure	3:53	5:59	2:06	4069	8544:54:00	16548:45:00	1:49:47
11/30/2017	Utilities	WR1	Planned	19:00	23:00	4:00	1	4:00:00	16552:45:00	1:49:48
11/30/2017	Utilities	WR1	Planned	19:00	0:30	5:30	5	27:30:00	16580:15:00	1:49:59
12/22/2017	Utilities	13	URD Failure	12:30	15:50	3:20	15	50:00:00	16630:15:00	1:50:19
12/27/2017	Utilities	13	URD Failure	18:30	21:07	2:37	1	2:37:00	16632:52:00	1:50:20
1/16/2018	Utilities	18	HUMAN	8:30	8:34	0:04	213	14:12:00	16647:04:00	1:50:26

CIRCUIT SAIDI IS CALCULATED ACCORDING TO THE NUMBER OF CUSTOMERS IN EACH CIRCUIT RESPECTIVELY												
<u>Running SAIDI Circuit 13</u>	<u>Running SAIDI Circuit 14</u>	<u>Running SAIDI Circuit 15</u>	<u>Running SAIDI Circuit 16</u>	<u>Running SAIDI Circuit 17</u>	<u>Running SAIDI Circuit 18</u>	<u>SAIDI Circuit EA4 & Royal Crest</u>	<u>Running SAIDI Circuit WR1</u>	<u>Running SAIDI Circuit WR2</u>	<u>Monthly SAIDI</u>		<u>Monthly Customer Minutes out of service</u>	<u>WEATHER SAIDI</u>
			0:02:17				0:00:17		MARCH	0:00:03	7:30:00	
			0:03:25						APRIL	0:00:42	105:00:00	
			0:04:43				0:01:19					
							0:02:28		MAY	0:00:39	70:00:00	
	0:15:00			0:01:09					JUNE	0:00:55	138:45:00	
							0:03:51		JULY	0:00:15	36:40:00	
			0:07:07			0:00:05			AUGUST	0:00:01	2:30:00	
	0:16:40											
	0:27:48											
	1:00:22								SEPTEMBER	0:03:11	480:50:00	
		0:00:05							OCTOBER	0:00:01	396:00:00	
4:18:33	14:14:14	3:48:47			0:00:17							
			4:45:27	40:54:14	40:07:18							
							0:04:00					
							0:05:02		NOVEMBER	1:44:12	15708:00:00	
0:01:49									DECEMBER	0:00:21	84:07:00	
0:00:06					0:04:00				JANUARY	0:00:06	94:19:00	
Circ 13	Circ 14	Circ 15	Circ 16	Circ 17	Circ 18	Circ EA4	Circ WR1	Circ WR2	Total	SAIDI TOTAL		WEATHER
1655	539	1875	1842	209	213	165	1586	961	9045	1:50:26		

EACH POINT IS A 12 MONTH SAIDI HISTORY
1:00:00 = APPA BENCHMARK SAIDI



STATUS REPORTS

ACCOUNTS RECEIVABLES

Los Alamos County Utilities Department
Active Receivables Over 90 Days Past Due
February 1, 2018

<i>Account</i>	<i>Acct Type</i>	<i>Comments</i>	<i>90 - 119</i>	<i>120 +</i>
2133408	RES	Adjustments made to account, balance is no longer pastdue	109.90	0.78
2133128	RES	Paid in full on 2/2/18	101.32	61.41
2097908	RES	Final bill past due, new bill issued on 1/29/18 for new address	-	299.08
2116108	COMM	Payment Plan on file, Payment of \$1,000 paid on 2/2 & 2/8	184.62	311.02
			395.84	672.29
			TOTAL \$	1,068.13

Los Alamos County Utilities Department
Receivables More than 60 Days Inactive
February 1, 2018

<i>YEAR</i>	<i>OUTSTANDING 2/1</i>	<i># OF ACCOUNTS</i>	<i>OUTSTANDING 1/2</i>	<i># OF ACCOUNTS</i>
FY14	28,242.22	96	28,242.22	96
FY15	25,258.78	94	25,510.66	95
FY16	20,488.28	119	21,079.15	120
FY17	27,440.66	107	28,036.53	106
FY18	4,427.81	58	4,248.46	44
TOTAL	\$ 105,857.75	474	\$ 107,117.02	461

STATUS REPORTS

SAFETY

DATE	TYPE	DEPT	EE #	PROP	CAUSE
01/04/18	PD	LAFD	5269	ENG 6	Responding to call, struck elk
01/09/18	PD	TRANSIT	8119	4153	Unk. Car hit bus; hit and run
01/20/18	PD	ELPROD	6694	1242	Unk. Broke into 1242 in Lowes lot

DOI	REPT DT	TYPE	DESC
		PD	Property Damage
		BI	Bodily Injury
		PI	Personal Injury
01/14/18	01/18/18	PD	Sewer back-up due to blockage on line

	Hours Worked						Hours Worked					
	ADMIN	EL DIST	EL PROD	GWS	WA PROD	WWTP	ADMIN	EL DIST	EL PROD	GWS	WA PROD	WWTP
MONTH												
Jan - 2018	2773.0	1161.0	1572.0	2972.0	1014.0	976.0						
Feb - 2017	3592.0	1462.0	3135.0	3912.0	1301.0	1055.0						
Mar - 2017	5675.0	1989.0	4450.0	5833.0	1711.0	3525.0						
Apr - 2017	3700.0	1411.0	1879.0	4633.0	1243.0	1047.0						
May - 2017	3446.0	1201.0	2906.0	4010.0	4227.0	1277.0						
June - 2017	3444.0	2976.0	1760.0	2987.0	1663.0	1334.0						
July - 2017	4071.0	1462.0	1558.0	3732.0	1453.0	1345.0						
Aug - 2017	5757.0	1641.0	2680.0	4286.0	2895.0	3097.0						
Sept - 2017	3385.0	1329.0	1659.0	3439.0	1355.0	1122.0						
Oct - 2017	3029.0	1424.0	1468.0	3522.0	1188.0	1238.0						
Nov - 2017	3476.0	1416.0	1506.0	3398.0	1182.0	1201.0						
Dec - 2017	3204.0	1251.0	1372.0	3047.0	2427.0	946.0						
Total Hrs Worked ->	45552.0	18723.0	25945.0	45771.0	21659.0	18163.0						
Number of Recordable Injury and Illness Cases	0	1	0	4	0	1						
OSHA Recordable Injury & Illness Incidence Rate	0.00	10.68	0.00	17.48	0.00	11.01						
Number of OSHA Days Away Days Restricted (DART) cases	0	0	0	3	0	0						
OSHA Days Away Days Restricted (DART) Rate	0.00	0.00	0.00	13.11	0.00	0.00						

OSHA INCIDENT 2017 YEAR-END REPORT						
MONTH	ADMIN	EL DIST	EL PROD	GWS	WA PROD	WWTP
Jan - 2017	2612.0	1286.0	1602.0	2857.0	1066.0	987.0
Feb - 2017	3592.0	1462.0	3135.0	3912.0	1301.0	1055.0
Mar - 2017	5675.0	1989.0	4450.0	5833.0	1711.0	3525.0
Apr - 2017	3700.0	1411.0	1879.0	4633.0	1243.0	1047.0
May - 2017	3446.0	1201.0	2906.0	4010.0	4227.0	1277.0
June - 2017	3444.0	2976.0	1760.0	2987.0	1663.0	1334.0
July - 2017	4071.0	1462.0	1558.0	3732.0	1453.0	1345.0
Aug - 2017	5757.0	1641.0	2680.0	4286.0	2895.0	3097.0
Sept - 2017	3385.0	1329.0	1659.0	3439.0	1355.0	1122.0
Oct - 2017	3029.0	1424.0	1468.0	3522.0	1188.0	1238.0
Nov - 2017	3476.0	1416.0	1506.0	3398.0	1182.0	1201.0
Dec - 2017	3204.0	1251.0	1372.0	3047.0	2427.0	946.0
	45391.0	18848.0	25975.0	45656.0	21711.0	18174.0
INJURIES	0	1	0	4	0	1
INC RATE	0.0	10.6	0	17.5	0.0	11.0
LOST/RSTR CASES	0	0	0	2	0	0
LOST/RSTR RATE	0.0	0	0	8.8	0	0.0
UTILITIES WIDE FOR ALL DEPARTMENTS					6.8	
BUREAU OF LABOR STATISTICS 2016 AVG FOR ALL UTILITIES					2.1	
BUREAU OF LABOR STATISTICS 2016 AVG FOR GOV UTILITIES					5.3	
					YEAR-END 2016	
UTILITIES WIDE FOR ALL DEPARTMENTS					7.3	
BUREAU OF LABOR STATISTICS 2015 AVG FOR ALL UTILITIES					2.2	
BUREAU OF LABOR STATISTICS 2015 AVG FOR GOV UTILITIES					6.2	
INJURIES	0	1	0	0	0	2
INC RATE	0.0	11.1	0	0.0	0.0	22.0
LOST/RSTR CASES	0	0	0	0	0	1
LOST/RSTR RATE	0.0	0	0	0.0	0	11.0
					YEAR-END 2015	
UTILITIES WIDE FOR ALL DEPARTMENTS					3.6	
BUREAU OF LABOR STATISTICS 2014 AVG FOR ALL UTILITIES					2.4	
BUREAU OF LABOR STATISTICS 2014 AVG FOR GOV UTILITIES					5.4	
INJURIES	0	1	0	0	0	2
INC RATE	0.0	11.1	0	0.0	0.0	22.0
LOST/RSTR CASES	0	0	0	0	0	1
LOST/RSTR RATE	0.0	0	0	0.0	0	11.0