County of Los Alamos

1000 Central Avenue
Los Alamos, NM 87544

Agenda - Final

Board of Public Utilities

Carrie Walker, Chair; Jeff Johnson, Vice-chair; Stephen McLin,
Kathleen Taylor and Steve Tobin Members
Philo Shelton, Ex Officio Member
Harry Burgess, Ex Officio Member
Pete Sheehey, Council Liaison

Thursday, August 22, 2019 | **5:30 PM** | **1000 Central Avenue Council Chambers**

REGULAR SESSION
Date changed from 8/21 to 8/22.

Complete Board of Public Utilities agenda packets, past agendas, videos, legislation and minutes can be found online at losalamos.legistar.com. Learn more about the Board of Public Utilities at rebrand.ly/LACBPU.

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 11761-19 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 12118-19 Quarterly Update on Utility System - Electric Distribution

Presenters: Steve Cummins, Deputy Utilities Manager - Power Supply

PG. 2-28

4.G.2 12128-19 Follow-up to Planning for Upcoming Board of Public Utilities Annual Boards & Commissions Presentation to Council on September 17th, 2019

Presenters: Carrie Walker, Chair of the Board of Public Utilities

PG. 29

4.H. Approval of Board Expenses

4.I. Preview of Upcoming Agenda Items

4.I.1 12229-19 Tickler File for the Next 3 Months

Presenters: Philo Shelton, Utilities Manager

PG. 30-32

5. PUBLIC HEARING(S)

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 12206-19 Approval of Board of Public Utilities Meeting Minutes

Presenters: Board of Public Utilities

PG. 33-114

6.B RE0410-19 Approval of Incorporated County of Los Alamos Resolution No. 19-23. A Resolution Removing Uncollectible Utility Accounts from the Incorporated County of Los Alamos' Accounts Receivable List for Fiscal Year 2014

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

PG. 115-120

6.C 12049-19 Approval of Budget Carryovers from FY2019 to FY2020

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

PG. 121-125

6.D AGR0640-19 Request for Consent to Assignment of Services Agreement AGR17-01, Changing the Assignment from Diamond Marketing Solutions Group, Inc. to Output Services Group, Inc. (OSG) and Approval of Related Amendment No. 2.

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

PG. 126-131

7. BUSINESS

7.A 12146-19 Update on the Adopted Future Energy Resource Initiatives

Presenters: Steve Cummins, Deputy Utilities Manager - Power Supply

PG. 132-138

7.B 12131-19 Presentation of the Feasibility and Estimated Cost of a Pumped Hydro Storage Facility in Los Alamos County

Presenters: Steve Cummins, Deputy Utilities Manager - Power Supply

PG. 139-157

7.C 11474-18 Approval of Agreement No. AGR19-43 with Los Alamos Solar II, LLC for the Purpose of a Solar Power Purchase Agreement to Deliver Photovoltaic Generated Electricity to the County

Presenters: Steve Cummins, Deputy Utilities Manager - Power Supply

PG. 158-192

8. STATUS REPORTS

8.A 12207-19 Status Reports

Presenters: Board of Public Utilities

PG. 193-206

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.

Agenda No.:	4.A.1
Index (Council Goals):	* 2019 Council Goal - N/A
Presenters:	Board of Public Utilities
Legislative File:	**11761-19**

Title

Reminder for Upcoming Boards & Commissions Luncheon

Body

The month prior to a Boards & Commissions luncheon, the attendee schedule will be inculded 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

2019 Schedule

January 17 - Steve McLin
March 14 - Steve McLin
May 16 - Jeff Johnson
September 19 - Carrie Walker
November 14 - Kathy Taylor
January 16, 2020 - New member

Agenda No.:	4.G.1
Index (Council Goals):	* 2019 Council Goal - N/A
Presenters:	Steve Cummins, Deputy Utilities Manager - Power Supply
Legislative File:	**12118-19**

Title
Quarterly Update on Utility System - Electric Distribution

Recommended Action
No Recommendation, for information only.

Staff Recommendation
None

Body
This quarterly update will provide an update to the 2006 Electric Distribution Condition Assessment. The update provides the strategy to managing the distribution system, completed O&M projects, pole replacement projects, update on two critical substation projects, and provides an overview of O&M and Capital needs over the next several decades.

Alternatives
none

Fiscal and Staff Impact
None, update only.

Attachments
A - 2019 Electric Distribution System Condition Assessment

DEPARTMENT OF PUBLIC UTILITIES

ELECTRIC SYSTEM CONDITION ASSESSMENT

Introduction

The condition assessment is an ongoing effort to evaluate the physical condition of the switches, poles, transformers, and conductors. Field verification and analysis of the system connectivity, equipment identification and safety were performed.

System Overview
Los Alamos County

- 236 Miles of Electric Distribution Lines
- 66% Underground
- 34 % Overhead
- Age – From 1960's to Present
- 9045 Customers

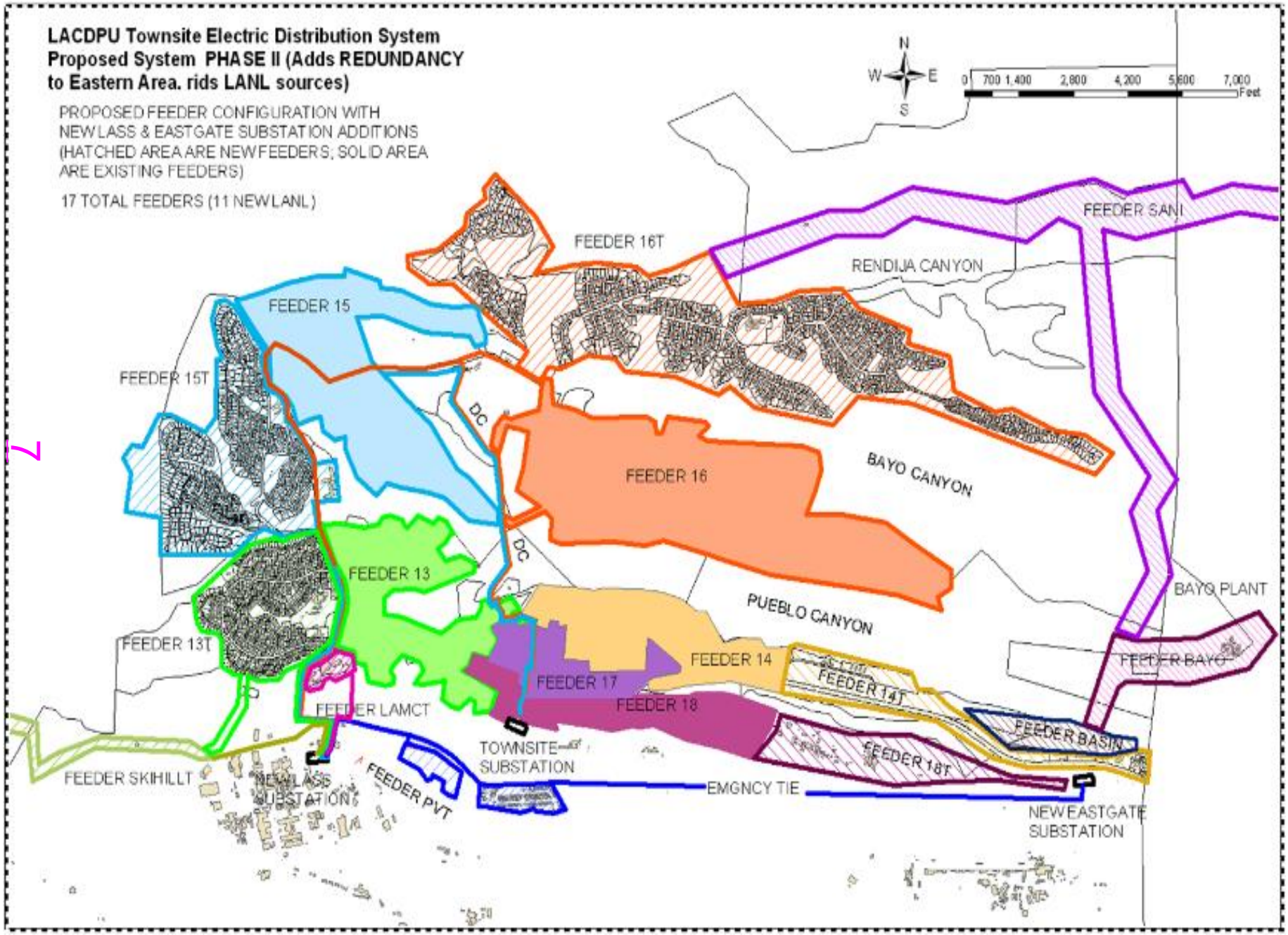
System Overview
Town site

- 13.2 KV from the LANL Substation
- 2- Tie Circuits to New Switch Station
- 6 Townsite Circuits
- E- A4 Feeder

(WWTP & WATER WELLS)

- S-6 FEEDER

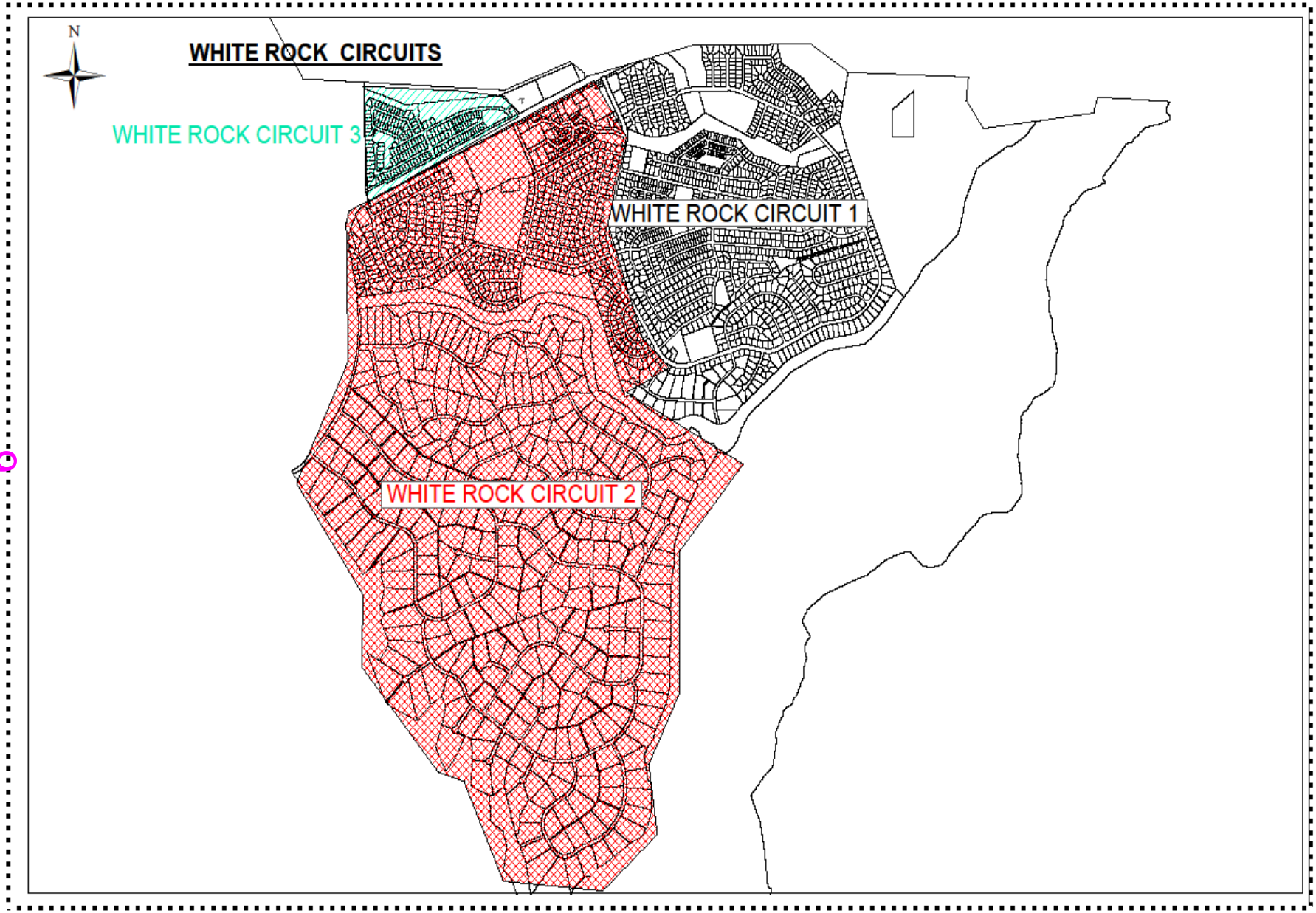
(L.A. MEDICAL CENTER)


LACDPU Townsite Electric Distribution System
Proposed System PHASE II (Adds REDUNDANCY to Eastern Area. rids LANL sources)
PROPOSED FEEDER CONFIGURATION WITH NEW LASS & EASTGATE SUBSTATION ADDITIONS (HATCHED AREA ARE NEW FEEDERS; SOLID AREA ARE EXISTING FEEDERS)
17 TOTAL FEEDERS (11 NEW LANL)
N
W
E
S
0 700 1,400 2,800 4,200 5,600 7,000 Feet
FEEDER 16T
FEEDER SANI
RENDIJA CANYON
FEEDER 15
FEEDER 15T
DC
FEEDER 16
BAYO CANYON
DC
FEEDER 13
BAYO PLANT
PUEBLO CANYON
FEEDER 13T
FEEDER 14
FEEDER BAYO
FEEDER 14T
FEEDER 17
FEEDER 18
FEEDER LAMCT
FEEDER BASIN
TOWNSITE SUBSTATION
FEEDER 18T
FEEDER SKIHILLT
NEW LASS SUBSTATION
FEEDER PVT
EMGNCY TIE
NEW EASTGATE SUBSTATION

System Overview
White Rock

- 12.47 KV from 115KV Norton Line
- Transformers – Unit 1 5000KVA

  New Unit 2 7500 KVA
- Switchgear on Unit 2 with 3 Circuits
- New Switchgear on Unit 1 with 3 Circuits


N
WHITE ROCK CIRCUITS
WHITE ROCK CIRCUIT 3
WHITE ROCK CIRCUIT 1
WHITE ROCK CIRCUIT 2

System Components Assessed

- Switches- (Padmount & Polemount)
- Transformers (OH & UG)
- Power Poles
- Substation and Switch station
- Conductors (OH & UG)
- Manholes, Vaults, Pull Boxes, Conduit
- Meters
- Overcurrent Devices & Regulators

Switches

- 122 Pad mount Switches
- Service Life Estimated @ 20 Years
- 94% of Switches installed since 2000
- 6% of Switches installed in the 1970's and 1980's

SWITCHES BY AGE AND CIRCUIT

	QUANTITY	< 1979	1980 - 1989	1990 - 1999	2000 - 2006	2006-2019
CIRCUIT 13	**25**				**2**	**20**
CIRCUIT 14	**16**				**5**	**11**
CIRCUIT 15	**31**				**16**	**15**
CIRCUIT 16	**15**				**4**	**11**
CIRCUIT 17	**9**					**9**
CIRCUIT 18	**10**					**10**
WHITE ROCK 1	**9**	**2**	**2**		**1**	**4**
WHITE ROCK 2	**7**					**7**
TOTAL	**122**	**5**	**2**	**0**	**28**	**87**

Transformers

- 217 Three Phase Transformers
  24% Over 30 Years Old
  Replacement Cost Approximately
  $15,000 each
- 1246 Single Phase Transformers
  11% Over 30 years Old
  Replacement Cost Approximately
  $2,000 each
- Service Life 25 to 40 Years

3-Phase Transformers by age and circuit

3-Phase Transformers	QUANTITY	1980 - 1989	1990 - 1999	2000 - 2006	2006-2019
CIRCUIT 13	57	20		3	34
CIRCUIT 14	22		8	5	9
CIRCUIT 15	22		5	4	13
CIRCUIT 16	12		5	2	5
CIRCUIT 17	43	4		20	19
Circuit 18	25			15	10
WHITE ROCK 1	17			10	7
WHITE ROCK 2	19			13	6
TOTAL	217	24	18	72	103

1- Phase Transformers by age and circuit

1 Phase Transformers	QUANTITY	1980 - 1989	1990 - 1999	2000 - 2006	2006-2019
CIRCUIT 13	158	48	30	35	45
CIRCUIT 14	127	52	24	31	20
CIRCUIT 15	287	58	49	80	100
CIRCUIT 16	*257*	67	30	47	113
CIRCUIT 17	0				
CIRCUIT 18	12			6	6
WHITE ROCK 1	188	25	43	49	71
WHITE ROCK 2	217	50	60	57	50
TOTAL	1246	300	236	305	405

Power Poles

- 2386 Poles
- Inspected for Structural Integrity and Treated in 2006 and 2013
  - 286 Rejects (12%)
  - 160 Priority (7%)
  - Useful Life 60+ Years if Treated in Regular Intervals
  - LACU Poles were not treated regularly

2006 Power Pole Study and Treatment
By PMC (Pole Maintenance Company)

Results in 258 rejected poles being braced with steel to insure integrity of each structure until replacement

2013 Power Pole Study and Treatment
By Osmose

Results in the 28 rejected poles added to the list

2015 Power Pole Replacement Project
By Elite Power and Recovery

Results in the replacement of 286 Power Poles

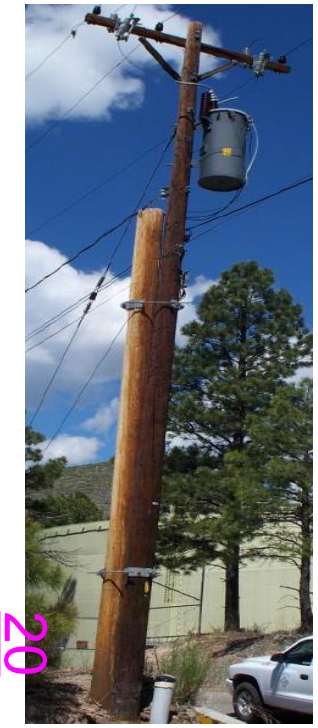
Future 2021 Power Pole Study and Treatment Project

2006 Power Pole Study

TABLE 3.3		Totals by Area				
Pole Series	Area	Pole Count	Total Rejects	Considered Priority of the Rejects	Percent of Total Rejects	Percent Priority Rejects
1000	Western Area	363	36	16	10%	4%
2000	Eastern Area	155	14	8	9%	5%
3000	North Communit	656	60	39	9%	6%
4000	North Mesa	128	13	11	10%	9%
5000	Barranca Mesa	256	44	18	17%	7%
6000	White Rock	343	53	35	15%	10%
7000	Pajarito Acres	250	22	16	9%	6%
8000	Ski Hill	44	2	2	5%	5%
9000	S-18	191	26	15	14%	8%
Grand Totals		2386	270	160	11%	7%

Power Poles Replaced Since 2006

Pole Series	Area	POLES REPLACED SINCE 2006
1000	Western Area	36
2000	Eastern Area	14
3000	North Community	60
4000	North Mesa	13
5000	Barranca Mesa	44
6000	White Rock	53
7000	Pajarito Acres	22
8000	Ski Hill	18
9000	S-18	26
Grand Totals		286



- O&M results from 2013 OSMOSE Pole Assessment & Testing Project

Ending Date	Poles Inspected	Reject Poles	Guy wire (broken or slack) Leaning Pole		Bad Insulator, LA	Groundwire Missing	Trees on Line	Guy Guard Missing	Vines on Pole	Fire Damage	Woodpecker holes	Split Top	Damaged Top	Shell Rot
Thru 9-21	71	1	1			10					0	2	2	12
Thru 9-25	175			1		17	1				4	1	9	50
Thru 10-5	208	2	3	3		15	19		5		4	1	7	3
Thru 10-12	264	2	2	1	1	13	14	4	2		2	16	4	0
Thru 10-18	346	11	3		1	8	13		1	4	2	17	10	11
Thru 10-24	238	2	3	5		27	12	7		8	1	8	8	1
Thru 11-1	233	2	8	5	1	2	11	10	1	2	4	2	8	1
Thru 11-8	248	6	8	8		2	18	9	4		17	21	19	1
Thru 11-15	327	2	8	16			13	4			24	21	13	
	2110	28	36	39	3	94	101	34	13	14	58	89	80	79

Priority 1 Items | Priority 2 Items | Priority 3 Items | Concerns

Replaced 30 of 32 rejected (2 are not accessible), plus 15 other poles

Pole Top Assemblies

- Inspected on an Annual Rotation
  by LACU Operations Staff to support
  AMT recommendations in preparation of the
  Annual Budget
- Goals: **NESC Compliant**
  Condition of Pole Assemblies
  Identify Attachments
  Structural Integrity of Crossarms
  and Equipment

Conductors

- Overhead 34% of Total Service Life Approximately 30 Years

- Underground 66% of Total

  -In Conduit 72%

  -Direct Bury 28%

  Service Life Approximately 20 Years Depending on installation method and type

Age of Underground Conductors by Circuit

	1980 - 1989	1990 - 1999	2000 – 2006	2006-2019
CIRCUIT 13	30%	10%	10%	50%
CIRCUIT 14	20%	10%	10%	60%
CIRCUIT 15	20%		80%	
CIRCUIT 16	30%		40%	30%
CIRCUIT 17			100%	
CIRCUIT 18			60%	40%
WHITE ROCK 1	65%		25%	10%
WHITE ROCK 2	65%		15%	20%

Age of Overhead Conductors by Circuit

	1980 - 1989	1990 - 1999	2000 – 2006	2006-2019
CIRCUIT 13		20%		10%
CIRCUIT 14				
CIRCUIT 15		20%		80%
CIRCUIT 16	24%		25%	51%
CIRCUIT 17				
CIRCUIT 18				
WHITE ROCK 1	75%	10%	5%	
WHITE ROCK 2	85%	10%	5%	

System Operational Condition

Perform System Analysis

- Utilize Milsoft/GIS interface for system model and mapping;
- Protective device coordination
- Circuit configuration to provide redundancy
- New Los Alamos Switch Station for added redundancy

Ensure GIS maps and Feeder 1-lines are up-to-date;

- For accurate switching procedures and crew/public safety

System Reliability

- Systemic:

  Overhead and Underground Failures

- Non Systemic:

  Third Party Damage

  Animals

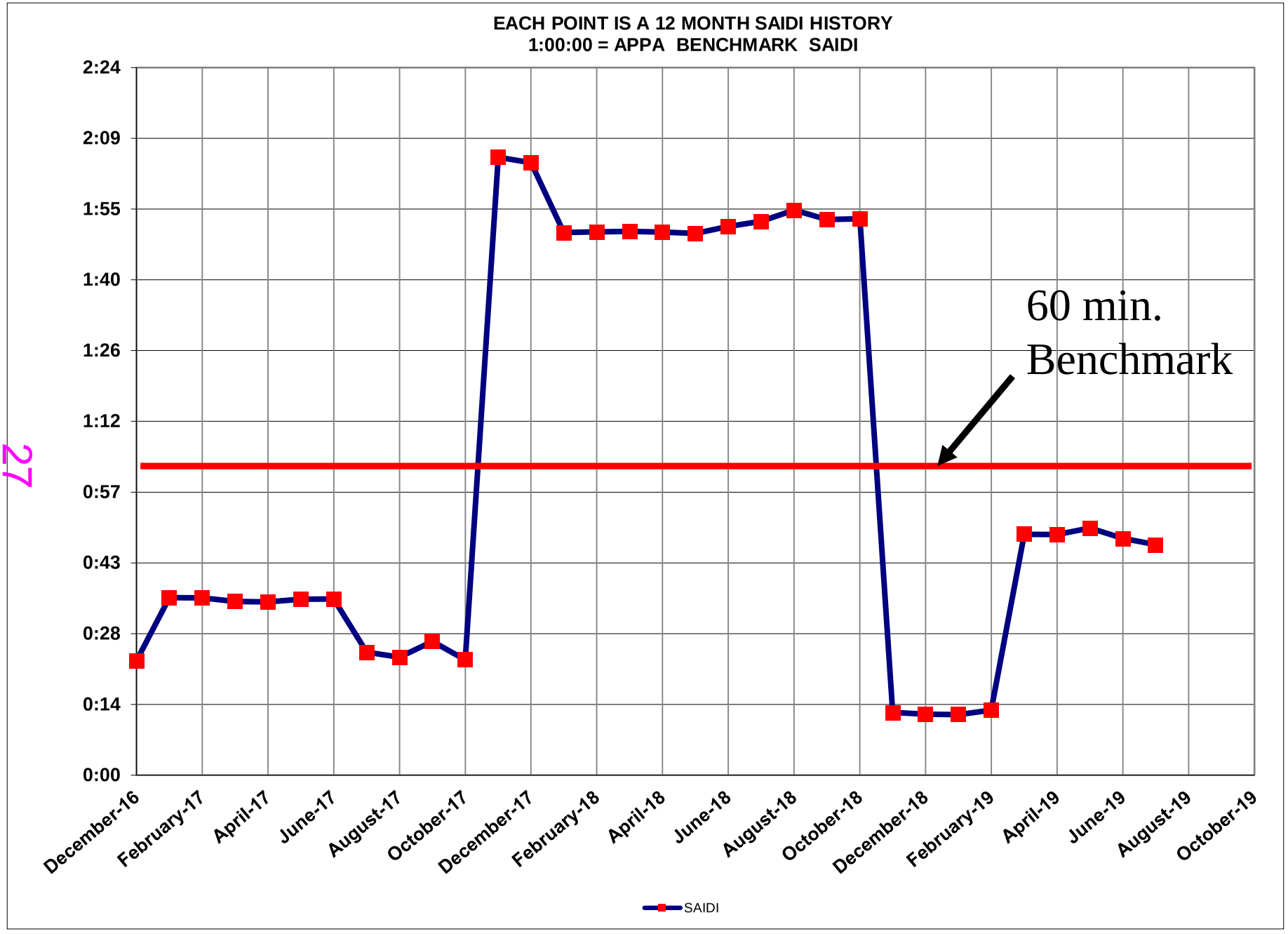
  Weather

  Trees

  Unknown

SAIDI = SYSTEM AVERAGE INTERUPTION DURATION INDEX

The standard for measurement of system reliability according to IEEE And APPA. Our benchmark for reliability is 60 minutes.


EACH POINT IS A 12 MONTH SAIDI HISTORY
1:00:00 = APPA BENCHMARK SAIDI
2:24
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Benchmark
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Questions?

Agenda No.:	4.G.2
Index (Council Goals):	* 2019 Council Goal - N/A
Presenters:	Carrie Walker, Chair of the Board of Public Utilities
Legislative File:	**12128-19**

Title
Follow-up to Planning for Upcoming Board of Public Utilities Annual Boards & Commissions Presentation to Council on September 17th, 2019

Recommended Action
None

Staff Recommendation
None

Body
On September 17th, 2019 the Board of Public Utilities is scheduled to give its annual Boards & Commissions presentation to Council. At the July 17th meeting, the Board suggested topics to include in the presentation. At the August meeting, the Board chair will discuss the presentation once more before it is finalized.

Alternatives
None

Fiscal and Staff Impact
None

Attachments
None

Agenda No.:	4.I.1
Index (Council Goals):	* 2019 Council Goal - N/A
Presenters:	Philo Shelton, Utilities Manager
Legislative File:	**12229-19**

Title

Tickler File for the Next 3 Months

Attachments

A - Tickler File for the Next 3 Months

County of Los Alamos

Tickler

Los Alamos, NM 87544
www.losalamosnm.us

Criteria: Agenda Begin Date: 9/1/2019, Agenda End Date: 11/30/2019, Matter Bodies: Board of Public Utiliti

File Number	Title

Agenda Date: 09/18/2019

11701-19 **Report** **04G General Board Business**

Quarterly Conservation Program Update

Department Name: DPU

Length of Presentation: Apx. 10 Min

Drop Dead Date:

Sponsors: James Alarid, Deputy Utilities Manager - Engineering

12147-19 **Briefing/Report (Dept,BCC) - Action Requested** **07 Business**

Approval of Bridge Contract for Water Services for Los Alamos National Laboratory

Department Name: DPU

Length of Presentation: Apx. 10 Min.

Drop Dead Date:

Sponsors: Philo Shelton, Utilities Manager

Agenda Date: 10/16/2019

11762-19 **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

11707-19 **Briefing/Report (Dept, BCC) - No action requested** **04G General Board Business**

Quarterly Update on Utility System - Gas Distribution System

Department Name: DPU

Length of Presentation: Apx. 30 Min.

Drop Dead Date:

Sponsors: Jack Richardson, Deputy Utilities Manager - GWS Services

12050-19 **Briefing/Report (Dept,BCC) - Action Requested** **04G General Board Business**

Approval of Department of Public Utilities Mission, Vision and Values, Strategic Goals and Objectives

Department Name: DPU

Length of Presentation: Apx. 20 Min.

Drop Dead Date:

Sponsors: Board of Public Utilities

12223-19 **Briefing/Report (Dept, BCC) - No action requested** **07 Business**

Preliminary Discussion - Water and Sewer Rate Adjustments

Department Name: DPU

Length of Presentation: Apx. 30 Min.

Drop Dead Date:

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

File Number	Title

Agenda Date: 11/20/2019

12227-19 **Briefing/Report (Dept, BCC) - No action requested** **04G General Board Business**

Begin 2019 Board of Public Utilities Annual Self-evaluation

Department Name: DPU

Length of Presentation: Apx. 10 Min.

Drop Dead Date:

Sponsors: Carrie Walker, Chair of the Board of Public Utilities

12225-19 **Public Hearings** **05 Public Hearings**

Public Hearing - Sewer Rate Adjustment

Department Name: DPU

Length of Presentation: Apx. 30 Min

Drop Dead Date:

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

12226-19 **Public Hearings** **05 Public Hearings**

Public Hearing - Water Rate Adjustment

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

August 22, 2019

Agenda No.:	6.A
Index (Council Goals):	* 2019 Council Goal - N/A
Presenters:	Board of Public Utilities
Legislative File:	**12206-19**

Title

Approval of Board of Public Utilities Meeting Minutes

Recommended Action

I move that the Board of Public Utilities approve the meeting minutes of July 17th, 2019 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. There were no revisions.

Attachments

A - Draft BPU Regular Session Minutes - July 17th, 2019

County of Los Alamos
Minutes
Board of Public Utilities

1000 Central Avenue
Los Alamos, NM 87544

Carrie Walker, Chair; Jeff Johnson, Vice-chair; Stephen McLin, Kathleen Taylor and Steve Tobin Members
Philo Shelton, Ex Officio Member
Harry Burgess, Ex Officio Member
Pete Sheehey, Council Liaison

Wednesday, July 17, 2019 **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, July 17, 2019 at 5:30 p.m. at 1000 Central Ave., Council Chambers. Board Chair Carrie Walker called the meeting to order at 5:30 p.m.

Present 5 - Board Member Walker, Board Member Johnson, Board Member Tobin, Board Member McLin and Board Member Taylor

2. PUBLIC COMMENT

Ms. Walker opened the floor for public comment on items on the Consent Agenda and for those not otherwise included on the agenda. There were no comments.

3. APPROVAL OF AGENDA

****

Ms. Taylor moved that the agenda be approved as presented. The motion passed by the following vote:

****

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

4. BOARD BUSINESS

4.A. Chair's Report

Ms. Walker had nothing to report.

4.B. Board Member Reports

Board members reported on the following items:

1) Mr. McLin - Mr. McLin reported that he attended a joint Board/Council subcommittee meeting last week. At that meeting, they discussed the resolution related to Joint Use Module Plant Operations (JUMP) at the Carbon Free Power Project, which is on the Board's agenda for this evening.

4.C. Utilities Manager's Report

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

Mr. Cummins explained for Mr. Tobin how transmission costs were calculated for the Navajo Tribal Utility Authority solar project and further explained for Ms. Taylor why the power swap being considered for the Laramie River Station does not apply to the Carbon Free Power Project.

4.D. County Manager's Report

Mr. Burgess had nothing to report.

4.E. Council Liaison's Report

Mr. Sheehey reported on the following items:

1) Mr. Sheehey was pleased to attend the retirement party for former Utilities Manager Tim Glasco. At the party, he mentioned that one of the things he appreciated was that Mr. Glasco had made some great hires, which is why Utilities is a high performing organization and has a good chance of receiving Zia level recognition from Quality New Mexico.

2) Mr. Sheehey will be gone most of August for a vacation to Europe. He will try to have another Councilor attend in his place.

4.F. Environmental Sustainability Board Liaison's Report

Ms. Susan Barns provided a written report, which is included in the minutes as an attachment.

4.G. General Board Business

4.G.1 12124-19 Recommendation to Move the August 2019 Meeting to Thursday, August 22nd

Presenters: Philo Shelton

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

Mr. Shelton will be attending the Utah Associated Municipal Power Systems Annual Member Conference in August, which conflicts with the August 21st Board meeting. He requested that the Board consider moving the meeting to August 22nd.

****

Mr. Johnson moved that the August 2019 Board of Public Utilities regular meeting be moved to Thursday, August 22nd. The motion passed by the following vote:

****

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

4.G.2 11895-19 Annual Review and Affirmation of the Board of Public Utilities Policies and Procedures Manual

Presenters: Carrie Walker

Board Chair Ms. Walker presented this item. The following is the substance of the item being considered.

Article 1.9 of the Board of Public Utilities (BPU) Policies and Procedures Manual (PPM) states that each year during the July BPU meeting, each Board member will affirm that he/she has received, read, understands and agrees to abide by the PPM. The Board had opportunities to propose any potential changes to the PPM prior to the meeting. No changes were proposed, and the members signed the affirmation sheet.

The following actions were identified for follow-up:

1) The Board requested that the Assistant County Attorney, Mr. Kevin Powers, conduct a legal review of the PPM. If any changes are proposed, those can be brought to the Board for consideration at a future meeting.

4.G.3 **11894-19** Planning for Upcoming Board of Public Utilities Annual Boards & Commissions Presentation to Council on September 17th, 2019

Presenters: Carrie Walker

Board Chair Ms. Walker presented this item. The following is the substance of the item being considered.

Ms. Walker will give the Board's annual presentation to Council on September 17th. She presented possible topics to be presented to Council, and members suggested additional topics for inclusion.

The following actions were identified for follow-up:

1) Ms. Walker will prepare a draft presentation to review with the Board at the August meeting. She requested that members send her any additional topics.

4.G.4 **11705-19** Quarterly Update on Utility System - Electric Production

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.

The Board requested a quarterly system assessment on a different utility each quarter. This quarter, Mr. Cummins presented an update on the Electric Production system.

The Board discussed this item and requested clarification where necessary.

The following actions were identified for follow-up:

1) Mr. McLin requested that staff keep the Board informed about progress related to the County's obligations to assist Northern Rio Arriba Coop (NORA) with a potential transmission line outage.

2) Mr. Cummins opted to split the electric system presentation into two separate presentations. He will present the Electric Distribution system quarterly update at the August meeting.

3) The Board requested an update on Future Energy Resources initiatives.

4.H. Approval of Board Expenses

There were no expenses.

4.I. Preview of Upcoming Agenda Items

4.I.1 12127-19 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) - Legal Review of Board Policies and Procedures Manual (Kevin Powers)

2) (TBD) - Closed Session to Set Utilities Manager Goals for FY20 (Carrie Walker)

3) 8/22/2019 - Update on Future Energy Resources Initiatives (Steve Cummins)

5. PUBLIC HEARING(S)

There were no public hearings scheduled for this meeting.

6. 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 Walker, Board Member Johnson, Board Member Tobin, Board Member McLin and Board Member Taylor

6.A 12125-19 Approval of Board of Public Utilities Meeting Minutes

Presenters: Department of Public Utilities

I move that the Board of Public Utilities approve the meeting minutes of June 19th and July 1st, 2019 as presented.

6.B AGR0621-19 Approval of Services Agreement No. AGR19-49 with KLM Engineering, Inc. in the amount of $69,950.00, plus Applicable Gross Receipts Tax, for the Purpose of 2019 Water Tank Coating & Cathodic Protection Inspection

Presenters: Jack Richardson

I move that the Board of Public Utilities approve Services Agreement No. AGR19-49 with KLM Engineering Inc. in the amount of $69,950.00 and a contingency in the amount of $15,000.00, for a total of $84,950.00, plus applicable gross receipts tax, for the purpose of Water Tank Coating and Cathodic Protection Inspection.

6.C 12102-19 Transfer of FY19 Budget Authority Between Funds

Presenters: Bob Westervelt

I move that the Board of Public Utilities approve transfer of fiscal year 2019 Budget Spending Authority between Utilities Sub-funds as follows:

Gas Labor increase by $150,000.00
Gas Non-Labor increase by $225,000.00
Water Production Labor increase by $40,000.00
Waste Water Labor reduce by $190,000.00
Water Production Non-Labor reduce by $225,000.00

6.D RE0414-19 Approval of Incorporated County of Los Alamos Resolution No. 19-17; A Resolution Appointing Utah Associated Municipal Power Systems ("UAMPS") Member Representative

Presenters: Philo Shelton

I move that the Board of Public Utilities approve Incorporated County of Los Alamos Resolution No. 19-17; A Resolution Appointing Utah Associated Municipal Power Systems ("UAMPS") Member Representative and forward to Council for consideration with a recommendation for adoption.

Ms. Walker called for a recess at 7:05 p.m. The meeting reconvened at 7:14 p.m. Mr. Burgess left the meeting at the break.

7. BUSINESS

7.A AGR0619-19 Approval of Services Agreement No. AGR19-47 with Bohannan Huston in the amount of $2,049,289.00, plus Applicable Gross Receipts Tax, for the Purpose of the Design of the White Rock Wastewater Treatment Plant and Consideration of Budget Revision 2020-05.

Presenters: James Alarid

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

Execution of this agreement will begin the process to replace the White Rock Wastewater Treatment Plant. The Department of Public Utilities (DPU) received six proposals in response to the request for proposals to perform the design of the new plant and provide engineering support during construction. The top three firms were interviewed, and Bohannan Huston was selected as the top respondent based on their project approach, extensive experience of their design team and understanding of the project needs, which will result in the best value to the County. The agreement consists of three distinct tasks: the value engineering, design analysis and construction document preparation. The construction services will consist of providing fulltime construction inspection, submittal review and approval, construction administration, bid evaluation, start-up support and preparation of operation and maintenance manuals. The DPU has also elected to have the Engineer provide additional services that are usually performed by the construction contractor. The Engineer will provide the controls hardware/software and perform the controls system integration. The Engineer will provide all of the materials testing during construction. Additionally, the Engineer will provide support to DPU

operators on an as needed basis for the first year of operation and perform a one-year warranty inspection.

The Board discussed this item and requested clarification where necessary.

****

Mr. Johnson moved that the Board of Public Utilities approve Services Agreement No. AGR19-47 with Bohannan Huston in the amount of $2,049,289.00 and a contingency in the amount of $102,464.00, for a total of $2,151,753.00, plus applicable gross receipts tax, for the purpose of the Design of the White Rock Wastewater Treatment Plant and forward to Council for approval. He further moved the Board of Public Utilities approve Budget Revision 2020-05 as summarized on Attachment B and forward to Council for approval. He further moved the budget revision be included in the minutes. The motion passed by the following vote.

****

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

7.B RE0416-19 Incorporated County of Los Alamos Resolution No. 19-18; A Resolution Authorizing and Approving an Increase in the Participant's Entitlement Share Under the Carbon Free Power Project Power Sales Contract for the Lay-off Power Sales Agreement Associated with Joint Use Module Plant Operations at the Carbon Free Power Project; and Related Matters

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.

On April 10, 2018, the Board of Public Utilities and County Council approved the Carbon Free Power Project (CFPP) Power Sales Contract with Utah Associated Power Systems for an entitlement share of 8,000 kW (8 MW) of capacity. This resolution is for Los Alamos County to express their interest in their entitlement share of capacity and energy from the Joint Use Module Plant (JUMP) program after the Department of Energy (DOE) has completed their research and development using the power output of the JUMP. Based on LAC's current subscription in the CFPP, the JUMP resolution will increase LAC's capacity by 2,974 kW (2.974 MW). The resolution also expresses the County's interest in the JUMP program up to 10,000 kW (10 MW) of additional capacity if available. UAMPS and DOE expect to have the terms and conditions of the JUMP Power Sales Layoff Agreement completed by October 2019. At this time, the members interested in the JUMP program will have the option to rescind their election to increase their entitlement share in the CFPP.

The Board discussed this item and requested clarification where necessary.

Ms. Walker opened the floor for public comments. Members of the public gave the following summarized comments:

1) Mr. Ed Birnbaum, 926 Circle Drive - Mr. Birnbaum expressed concern that the CFPP small modular nuclear reactor will be the first ever of its kind built. It may not work as well as everyone hopes, and there is no guarantee that it will continue to operate as planned for forty years. He does not think that future repair and upkeep costs are being properly considered in the total cost obligation to the County for this project. As examples where he believes a similar lack of foresight has occurred, he cited the upkeep costs of the lead

and sulfur sodium batteries at the landfill photovoltaic array and the repair costs for the hydro plants. He would like to see hard numbers for how these kinds of costs are factored in before the County commits to move forward with the CFPP.

****

Ms. Taylor moved that the Board of Public Utilities approve Incorporated County of Los Alamos Resolution No. 19-18; A Resolution Authorizing and Approving an Increase in the Participant's Entitlement Share Under the Carbon Free Power Project Power Sales Contract for the Lay-off Power Sales Agreement Associated with Joint Use Module Plant Operations at the Carbon Free Power Project; and Related Matters, and forward to Council for adoption. The motion passed by the following vote:

****

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

8. STATUS REPORTS

8.A 12126-19 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

9. PUBLIC COMMENT

Ms. Walker opened the floor for public comment on any items. There were no comments.

10. ADJOURNMENT

The meeting adjourned at 8:29 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

Utility Manager's Report
July 17, 2019

1. Attended a board meeting with UAMPS on the Carbon Free Power Project (CFPP) Joint Use Modular Plant (JUMP) resolution.

2. Attended Board of Public Utilities agenda setting meeting.

3. Attended two Council Leadership meetings.

4. Attended several meetings with Tim Glasco on department transition topics. We toured several areas around Los Alamos County to become familiar with the utility system and where key assets are located.

5. Reviewed and commented on the Zia application. This application has been submitted to Quality New Mexico for consideration. The site visit is expected in October or November of this year. The application will satisfy the Charter requirement for a management audit to be conducted every 5 years.

6. Met with each utility Deputy and PIO to discuss their current projects and issues as well as their professional goals for FY2020.

7. Met with County Attorney on upcoming agenda items for the BPU.

8. Attended Los Alamos County Senior Management Team meeting.

9. Attended Electric Distribution meeting with the crew. The DPU-SMT discussed upcoming projects for FY2020 that the crew will interface with on these projects.

10. Meet with DPU-SMT staff to discuss issues and project needs.

11. Met with Customer Care staff on volume of work and issues in delivering good customer service. I will be working with Deputy Finance Manager to identify short term and long-term solutions in the face impending Munis upgrades and the AMI project.

12. Attended the bi-monthly ECA meeting and staff provided a status on all the key utility assets in the ECA. The procurement officer with NNSA was present and she also indicated a water purchase contract for one year is forthcoming in the next two weeks for DPU's review.

13. Held a couple of meetings with County Attorney and Kutak Rock on water rights lease from the NNSA. The form of the lease will be presented to DOE for their review and comment.

14. NNSA has provided staff and county attorney the process required for the sub-lease requirements to bring in the selected contractor for the second megawatt of solar PV at the landfill. The contract will now be presented to BPU at August's Board meeting for approval.

15. Attended DPU's new employee orientation.

16. Reviewed the BPU agenda items placed into Legistar for the July 17th BPU meeting.

17. August 5, 2019 New Mexico Public Regulation staff will be onsite for triennial Distribution Integrity Management Plan (DIMP) audit of the natural gas system. Typically, 3 to 5 days onsite.

18. We have been awarded $800,000 grant/loan from the New Mexico Water Trust Board for the construction of the Overlook Park Effluent Booster Station Replacement Project. Award consists of $320,000 zero-interest loan and $480,000 grant.

19. NM 502 Project is on schedule and no cost increases. All utility work is scheduled to be completed by October 2019. Contractor will suspend work for the winter and resume roadwork in the spring, expected completion by November 2020.

Environmental Sustainability Board (ESB) liaison report

Susan Barns, ESB Liaison 7/17/19/2019

Last month's activities included:

- An Open House for residents to educate and collect feedback on a tiered rate structure for residential waste services, known as Save-As-You-Throw.
- Discussion of revised FY20 ESB Work Plan, and results to date of the zero waste program at the Summer Concert Series.
- An update from our Schools Subcommittee on progress with reducing waste in schools, especially cafeterias, as well as a summer workshop being held by Chamisa School teachers to show teachers from other schools how to start sustainability initiatives.
- Updates from the Zero Waste Team on food banks, anaerobic composting, a school supplies swap, and ways to promote food sharing in the community.

Tomorrow night's ESB meeting will include:

- An informational update from the Save-As-You-Throw Research Subcommittee on feedback from the community, research activities, and planning for upcoming Open Forum poll.
- A presentation from Robert Gibson on Los Alamos County Energy Use and Green House Gas Emissions.

Budget Revision 2020-05

BPU Meeting Date: July 17, 2019 **Council Meeting Date: July 30, 2019**

	Fund Name	Org Object	Revenue (decrease)	Expenditures (decrease)	Fund Balance (decrease)
1	Utilities - Wastewater Fund	55185599 8369	$ -	$ 1,000,000	$ (1,000,000)
1	Utilities - Wastewater Fund	55185599 8369	$ -	$ 1,309,100	$ (1,309,100)

Description: The purpose of this budget revision is to rollover FY2019 spending authority to FY2020 in the amount of $1,000,000 and increase FY2020 spending authority by an additional $1,309,100 for design of the White Rock Wastewater Treatment Plant. Utilities received a loan for the Wastewater Treatment Plant from NM Environment Department.

Fiscal Impact: The impact on the Joint Utilities Fund is to increase expenditures and decrease fund balance by $2,309,100.

LOS ALAMOS

BOARD OF PUBLIC UTILITIES
ADDITIONAL MEETING DOCUMENTS

Additional or revised information or documents are often passed out to the Board at the meetings. Whenever possible, this informational cover page will accompany those documents.

MAKE 20 COPIES OF ANY DOCUMENTS, INCLUDING THIS COVER SHEET, AND RETURN TO JAIME KEPHART PRIOR TO THE MEETING.

MEETING DATE	07/17/2019
AGENDA ITEM	4.C. Utilities Manager Report
DOCUMENT TITLE(S)	E-mail Regarding Los Alamos County's Withdraw from the Red Mesa Tapaha Solar Project
FROM	Philo Shelton, Utilities Manager
NEW OR REVISED? Is this a revision that is different from what was in the agenda packet, or is it something entirely new?	New
RECOMMENDED ACTION If you have a new or revised recommended motion for the Board, enter it here.	**N/A**
ADDITIONAL INFORMATION Please VERY BRIEFLY explain the purpose of this information or document.	This is an informational item that Mr. Shelton will discuss briefly during his Utilities Manager report.

Kephart, Jaime

Subject: RE: Los Alamos County's withdraw from the Red Mesa Tapaha Solar Project

From: Cummins, Steve
Sent: Friday, July 12, 2019 1:53 PM
To: Jackie Coombs <jackie@uamps.com>
Cc: Mason Baker <mason@uamps.com>
Subject: Los Alamos County's withdraw from the Red Mesa Tapaha Solar Project

Jackie
Los Alamos County will be withdrawing from the NTUA Red Mesa Tapaha solar project based on Pacificorp transmission cost to deliver it to Public Service Company of New Mexico. The initial study had a few site locations under consideration, one of which would potentially interconnect with San Juan. The selected site is in Pacificorp Balancing area resulting in pancaking transmission rates for Los Alamos County. The Point-to-Point transmission service with ancillary services would add approx. $20/MWh to the Power Purchase Agreement price. Los Alamos will continue to pursue renewable projects located within PNM's Balancing Area.

Thank you for the opportunity to explore this resource.

Let me know if you have any questions for us.

Steve Cummins
Deputy Utilities Manager, Power Supply
Incorporated County of Los Alamos, Department of Public Utilities (DPU)
(505)662-8131

LOS ALAMOS

BOARD OF PUBLIC UTILITIES
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MAKE 20 COPIES OF ANY DOCUMENTS, INCLUDING THIS COVER SHEET, AND RETURN TO JAIME KEPHART PRIOR TO THE MEETING.

MEETING DATE	07/17/2019
AGENDA ITEM	4.C. Utilities Manager Report
DOCUMENT TITLE(S)	2019 Zia Application - New Mexico Performance Excellence Assessments & Awards Program
FROM	Philo Shelton, Utilities Manager
NEW OR REVISED? Is this a revision that is different from what was in the agenda packet, or is it something entirely new?	New
RECOMMENDED ACTION If you have a new or revised recommended motion for the Board, enter it here.	**N/A**
ADDITIONAL INFORMATION Please VERY BRIEFLY explain the purpose of this information or document.	This is an informational document that Mr. Shelton will discuss briefly during his Utilities Manager report.

LOS ALAMOS
Department of Public Utilities

Electric, Natural Gas, Water and Wasterwater Services

2019 Zia Application - Level 4
New Mexico Performance Excellence Assessments & Awards Program

photo: Vint Miller 2017

1000 Central Avenue, Suite 130, Los Alamos, NM 87544

Table of Contents

Acronym Glossary

A

A	Accurate
ACE	Army Corp of Engineers
ACS	Annual Comparison Summary
AGA	American Gas Association
AMI	Advanced Metering Infrastructure (Includes Smart Meters)
AMT	Asset Management Team
AOS	Available on Site Visit
AP	Action Plan
API	American Petroleum Institute
APGA	American Public Gas Association
APPA	American Public Power Association
ASAI	Average System Availability Index: Measures electricity distribution - average system availability per unit is calculated as service hours available divided by customer demand hours
AWWA	American Water Works Association
AV	Antivirus

B

BAR	Baldrige Award Recipients
B&C	Board & County Council
BOR	US Bureau of Reclamation
BPU	Board of Public Utilities

C

C	Complete
CAFR	Comprehensive Annual Financial Report
CAIDI	Customer Average Interruption Duration Index: Measures electricity distribution - average interruption (outage) duration is calculated as the sum of all customer outage durations divided by the total number of customer interruptions
CC	Core Competency
CCA	Core Competency: Accountability
CCC	Customer Care Center
CCE	Core Competency: Employees
CCR	Core Competency: Relationships
CCS	Core Competency: Sustainability
CI	Conflict of Interest
CIP	Capital Improvement Plan
COOP	Continuity of Operations Plan
CPA	Certified Public Accountant
CPS	Clear Point System

D

DG	Distributed Generation
DMZ	Demilitarized Zone
DOE	Department of Energy
DOT	Department of Transportation
DPU	Los Alamos Department of Public Utilities

E

EAP	Emergency Action Plan
EATP	Enterprise Awareness Training Program
EAF	Equivalent Availability Factor
ECA	Electric Coordination Agreement (with DOE)
ED	Electric Distribution
ENG	Engineering
EOP	Emergency Operations Plan
EP	Electric Production
EPA	Environmental Protection Agency
ERP	Enterprise Resource Planning
EV	Electric Vehicle

F

F	Findings
F	Former
F&A	Finance and Administration
FC	Field Crew
FD	Fire Department
FER	Future Energy Resources
FERC	Federal Energy Regulatory Commission
Fig	Figure
FTE	Full Time Employee
FY	Fiscal Year

G

GAAP	Generally Accepted Accounting Principles

GAS Governmental Auditing Standards

GD Gas Distribution

GFOA Gov. Finance Officers Assoc.of US and Canada

GIS Geographical Information System

GPCD Gallons Per Capita Per Day

GWS Gas, Water, Sewer

H

HR Human Resources

I

I Interacting

ID Identify

IP Internet Provider

IRP Integrated Resource Plan

IPS Intrusion Prevention System

IT Information Technology

J

K

KM Key Measure

KPM Key Performance Measure

KWP Key Work Process

L

L Listen

LA Los Alamos

LAC Los Alamos County

LACDC Los Alamos Commerce & Development Corporation

LACED LAC Economic Development

LAMC Los Alamos Medical Center

LANL Los Alamos National Laboratory

LAPS Los Alamos Public School

LITMOS Cloud based learning management software

LIO Listening, Interacting, Observing

LS Leadership System

LT Long Term, as in time

M

MG Million Gallons

mi. Miles

MM Middle Management

MW Megawatt

MS-ISAC Multi-State Information Sharing & Analysis Center

MUNIS ERP for municipalities

MVV Mission, Vision, Values

MWh Megawatt Hour

N

NASSCO National Association of Sewer Services Companies

NERC North American Electric Reliability Corporation

NESC National Electric Safety Code

NIST National Institute of Standards and Technology

NM New Mexico

NMED NM Environment Department

NMMEAA NM Municipal Energy Acquisition Authority

NMOMA NM Open Meetings Act

NMOSA NM Office of the State Auditor

NMOSE NM Office of State Engineer

NMPRC NM Public Regulation Commission

NMS Non-Management Staff

NP Non-Potable, as in water

NPS Net Promoter Score

NV No Violations

O

O Observing

O&M Operations and Maintenance

OSHA Occupational Safety and Health Administration

OPRC Operating Procedure Review Committee

P

P Potential

PACP Pipeline Assessment Certification Program

PDSA Plan Do Study Act

PAP Project Administrative Procedures

PEEC Pajarito Environmental Education Center

PHMSA Pipeline & Hazardous Materials Safety Administration

PPA Performance Planning and Appraisal

PPE	Personal Protective Equipment
PR	Public Relations
PRV	Pressure Regulating Valve
PS	Partners and Suppliers
PSB	Pipeline Safety Bureau
PUP	Prudent Utility Practice
PV	Photovoltaic (solar)
PWV	Present Worth Value

Q

QSC	Quarterly Safety Committee

R

RFP	Request for Proposal
RFQ	Request for Quote

S

SA	Strategic Advantage
SAIDI	System Average Interruption Duration Index: Measures electricity distribution - average interruption (outage) time if all customers were out at the same time (hours per year) is calculated as the sum of all customer outage durations divided by total number of customers served
SAIFI	System Average Interruption Frequency Index: Measures electricity distribution - average nterruptions (outages) per year is calculated as the total number of customer interruptions divided by the total number of customers served
SANS	Institute for informational security training and security certification.
SC	Strategic Challenge
SCADA	Supervisory Control and Data Acquisition
SCV	Safety Culture Vision
SH	Stakeholder
SIR	Severe Injuryt Report
SL	Senior Leader
SM	Social Media
SME	Subject Matter Expert
SMT	Senior Management Team
SMR	Small Modular Reactor
SO	Strategic Objective
SOP	Standard Operating Procedures
SP	Strategic Plan
SPP	Strategic Planning Process
ST	Short Term, as in timeline
SWOT	Strengths Weaknesses Opportunities Threats

T

T	On-Time
Tr	Trailhead

U

U	Competitor Utility
UAMPS	Utah Associated Municipal Power Systems
UM	Utilities Manager
URL	Uniform Resource Locator
USDOT	US Department of Transportation

V

V	Values
V	Violation
V	Vision
VC	Value Customers
VE	Value Employees
VNR	Value Natural Resources
VS	Value Community
VOC	Voice of the Customer
VPN	Virtual Private Network

W

WC	Wastewater Collection (Sewer)
WD	Water Distribution
WECC	Western Electricity Coordinating Council
WF	Workforce
WP	Water Production
WR	White Rock
WW	Wastewater (Sewer)
WT	Wastewater Treatment
WWTP	Wastewater Treatment Plant

X

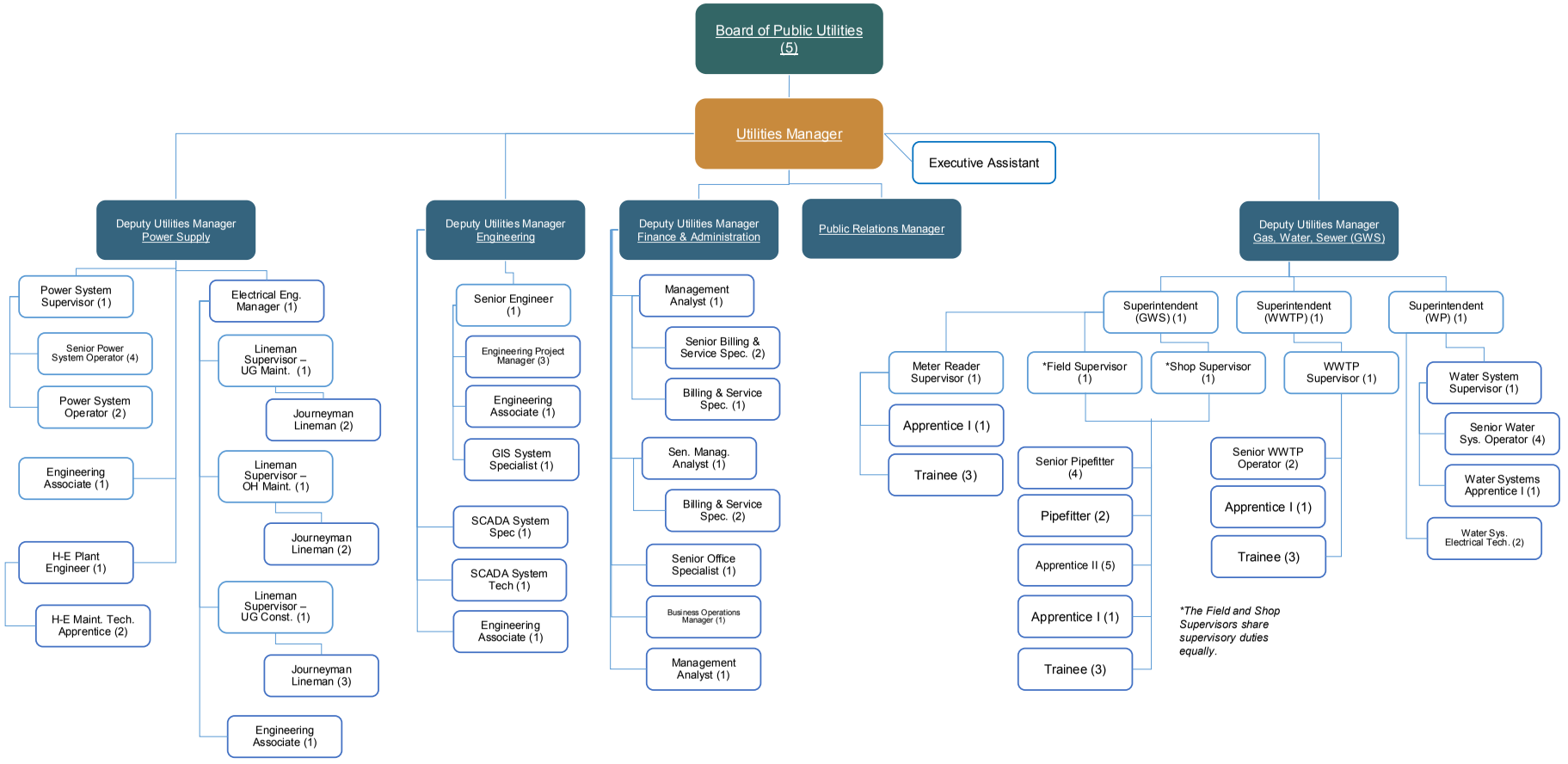
Y

Z

DRAFT - These minutes have not yet been approved by the Board of Public Utilities.

LOS ALAMOS
Department of Public Utilities
Electric, Gas, Water, and Wastewater Services

DEPARTMENT ORGANIZATIONAL CHART



As of July 2,2019

P: Organizational Profile

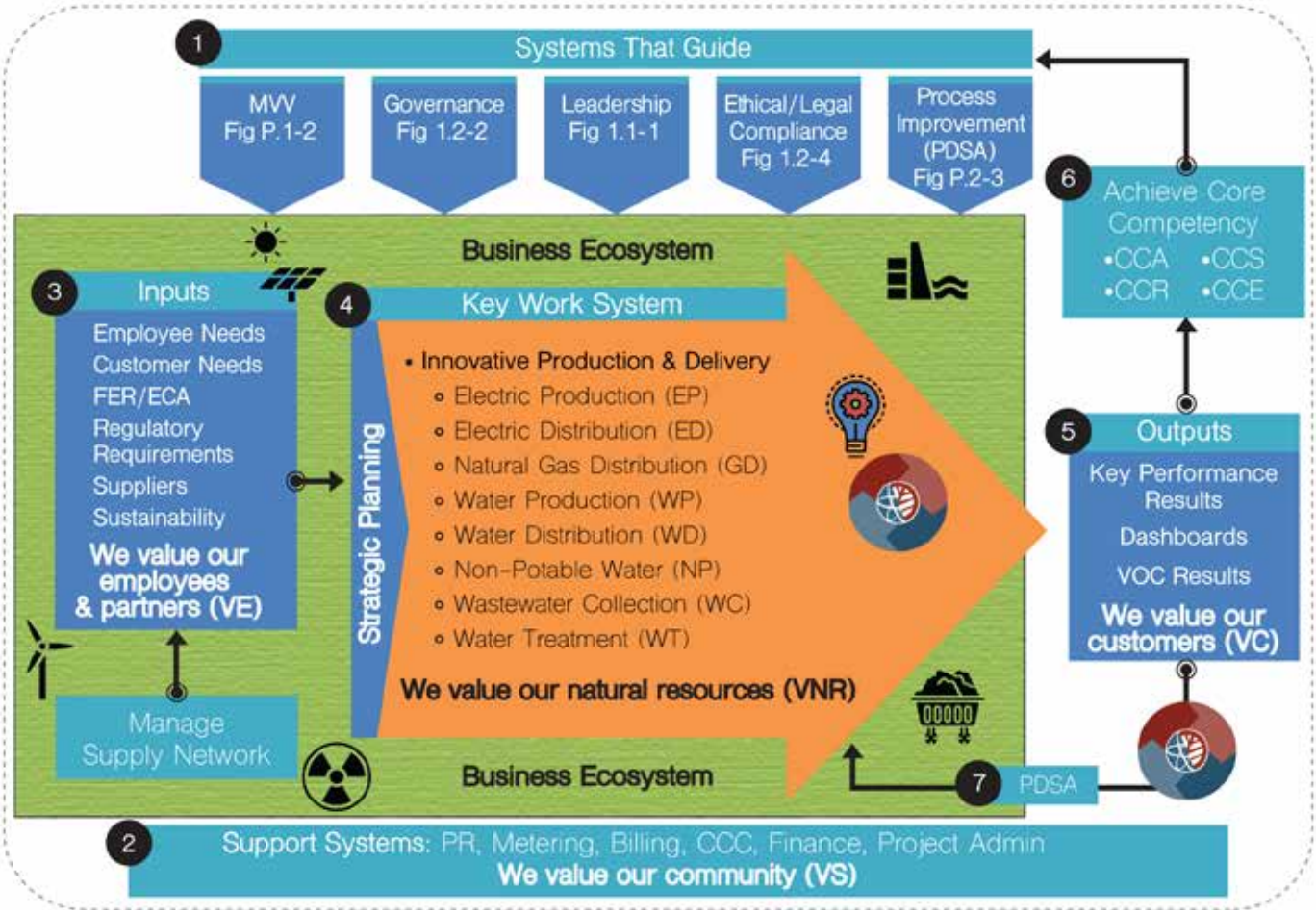


Figure P.1-0 ***The DPU Enterprise System Model enables us to execute our chartered mission***

To ensure all aspects of our business are addressed systematically, we have an Enterprise System Model (**Figure P.1-0**) which includes the elements critical to our ability to execute our chartered mission.

P.1 Organizational Description

Los Alamos County (LAC) Department of Public Utilities (DPU) is part of the county government formed 51 years ago. Los Alamos was created by the establishment of Los Alamos National Laboratory (LANL) during World War II. The smallest county in New Mexico, LAC was administered by the US government during the Manhattan Project, but now has equal status to NM's other counties. The county has two population centers: Los Alamos and White Rock. LAC is located on four mesas of Pajarito Plateau, which creates unusual challenges for DPU. With an altitude of 7,320 feet, LAC has higher than normal number of lightning strikes, is forested with ponderosa pines, and has an abundance of wildlife (rodents, birds, reptiles) which impact operations and maintenance of all utilities.

The complexity and vulnerability of the utility was never more evident than during the 2000 Cerro Grande fire, when 400 Los Alamos homes burned to the ground. There was plenty of water available, but the distribution system was not equipped to transfer it to where it was needed. Further, burned electric lines caused shutdown of booster stations that refill water tanks. After the fire, using PDSA, DPU used federal grants to add a 7.75 million-gallon storage tank, replace undersized water lines, install cross-connects to transfer and backfeed water as needed, and replace burned overhead electric lines with underground lines. Lastly, a 350-kilowatt generator capable of powering any pump station now backs up electric lines. During the seven years after the fire, DPU installed over $30 million of systems upgrades and improvements.

P.1a Organizational Environment

P.1a1 Product Offerings Our main product offerings are shown in **Figure P.1-1**. These core services are equally

Product	% Rev.	Delivery Mechanisms
Electric Production (EP)	72%	Hydroelectric facilities, coal-fired plants, PV panels, ECA
Electric Distribution (ED)		Substations, lines, meters, poles, transformers, CCC, EV stations
Natural Gas Distribution (GD)	7%	Service installation, metering, CCC
Water Production (WP)	12%	Wells, pumps, storage
Water Distribution (WD)		Pumps, lines, meters, CCC
Non-Potable Water (NP)		Pumps, lines, tanks
WW Collection (WC)	9%	CCC, pipes, lift stations
WW Treatment (WT)		Composting, treatment facilities

Figure P.1-1 ***DPU is a customer-oriented municipal utility serving residents, businesses and LANL***

important to our customers and stakeholders. DPU builds and maintains utility infrastructure to ensure delivery of all products.

P.1a2 Mission, Vision, and Values (MVV) DPU's purpose is to provide the utilities that County citizens, businesses and LANL rely upon. MVV, shown in Figure P.1-2, are changed/affirmed annually during strategic planning (SP).

Mission & Vision	
Mission: Provide safe & reliable utility services in an economically & environmentally sustainable fashion	
Vision: Be a high performing utility matched to our community, contributing to its future with diversified & innovative utility solutions	
We Value:	
Our customers by being service oriented & fiscally responsible (VC)	
Our employees & partners by being a safe, ethical & professional organization that encourages continuous learning (VE)	
Our natural resources through innovative & progressive solutions (VNR)	
Our community by being communicative, organized & transparent (VS)	
Core Competencies/Integration	
Accountable Management (CCA)	Supports mission to provide economic services
SP for Sustainability (CCS)	Supports vision to explore diversified & innovative solutions
Building Customer & Partner Relations (CCR)	Supports customer, partner & community values
Employee Development (CCE)	Supports employee value

Figure P.1-2 ***For the past 10 years MVV has driven our strategic planning, leadership & performance improvement***

Other characteristics of our culture are reflected in the Code of Ethics (Figure 1.2-5) and Safety Culture Vision (Figure 6.2-1).

P.1a3 Workforce Profile DPU's workforce (WF) consists of 94 full time employees. WF profile:
• Gender: 84% male; 16% female
• Ethnicity: 68% Hispanic; 29% Caucasian; 3% American Indian
• Education: 74% high school; 5% associate, 15% bachelor and 6% masters degrees
Forty-one employees are union members in either International Brotherhood of Electrical Workers or United Association of Plumbers and Pipefitters.

Due to the inherently dangerous nature of utilities work, health monitoring and safety training are an integral part of DPU operations. Employees routinely receive training in all aspects of electrical, natural gas and biohazard awareness safety. Key elements that engage staff to achieve the Mission (M) and Vision (V) are drawn from Gallup research (Figure P.1-3).

Key Elements	M	V	Figure
Having materials/equip to work	●	VE	7.3-2
Opportunity to do what I do best	●	VC	7.3-6
Engagement		VE	7.3-8
Talking about progress	●		7.3-12

Figure P.1-3 ***We focus on key elements to engage employees in exceeding our mission & attaining our vision***

P.1a4 Assets DPU builds, maintains and operates utilities infrastructure with a book value of $271 million (Figure P.1-4). Because of the unique topography, these assets are incredibly complex for the population served. For example, Santa Fe's 83,000 citizens are served by four lift stations, while our 18,000 citizens require 27 lift stations. Our electric power generation portfolio has allowed us to provide approximately 30% of our power from renewable energy resources while maintaining competitive electric rates.

Product	Asset
Electric Production	2 hydroelectric power plants, shared ownership in 2 coal-fired plants, 1MW PV panels & batteries
Electric Distribution	2 substations, 236 mi. underground & overhead lines, 2387 poles, 2010 transformers, 9000+ meters
Natural Gas Distribution	4 entry stations, 18 PRV stations, 128 mi. main & 83 mi. delivery pipelines, 7000+ meters
Water Production	12 wells, 25 tanks, 17 booster stations, 4 disinfection facilities, 45 mi. pipeline
Water Distribution	64 PRV stations, 118 mi. main lines, 41 mi. delivery lines, 7000+ meters
Non-Potable Water	Dam, catchment, 6 tanks/ponds, 2 PRV stations, 14 mi. main, 2 mi. delivery lines
Wastewater Collection	118 mi. main lines, 45 mi. delivery lines, 27 lift stations
Water Treatment	2 plants, biosolids composting facility

Figure P.1-4 ***We maintain & operate a robust infrastructure in rugged & challenging terrains***

P.1a5 Regulatory Requirements DPU maintains and operates systems to meet or exceed regulations and industry standards. Figure P.1-5 shows our key regulatory interfaces.

Area	Key Regulators
Electric Production	FERC, NERC, WECC, ACE, BOR
Electric Distribution	NESC (voluntary)
Natural Gas Distribution	USDOT, PHMSA, NMPRC
Water Production/ Distribution	EPA, NMED, NMOSE
Wastewater Collection/NP	EPA, NMED
DPU	OSHA, GFOA, NMOMA

Figure P.1-5 ***Mandated regulatory compliance is exceeded by our mission to provide safe, reliable & sustainable utilities***

P.1b Organizational Relationships

P.1b1 Organizational Structure LAC Charter provides for DPU to operate the four County-owned utility systems; the Board of Public Utilities (BPU) provides the governance structure. DPU leadership system structures and mechanisms are shown in Figure 1.1-1. The originators of the Charter recognized the importance of a semi-autonomous municipal utility with checks and balances. BPU members are citizens appointed by the elected County Council. The power of BPU is checked by the County Council having approval authority on all major expenditures, budget and rate changes. BPU

directs utility policy with the goal of balancing customers' needs with financial oversight and proper management and operations. The Utilities Manager (UM) is appointed by and reports to BPU. The Senior Management Team (SMT) consists of four Deputy UMs and a Public Relations (PR) manager reporting directly to the UM:

1. Electric Production & Distribution
2. Gas, Water, Sewer
3. Engineering
4. Finance and Administration (F&A)

With the exception of PR and F&A, each operations area has a superintendent or senior engineer who reports to the deputy manager for that area.

DPU contributes revenue to the County General Fund and pays for services provided from the County, such as finance and accounting, payroll, human resources, fleet, information technology, risk management, and legal services.

P.1b2 Customers and Stakeholders DPU serves a unique customer base. In a study conducted by American City Business Journal (2014), Los Alamos County topped the list as the best place to live in America in terms of quality of life. This was attributed to high levels of job stability, income and education of Los Alamos residents, many of whom are employed as scientists and engineers at LANL. The county has one of the highest number of PhDs per capita and median household income is among the highest of all counties in the US. Compared to surrounding counties in northern NM, our residents are also ethnically diverse. There is strong interest in our community in innovation, sustainability, and high-tech solutions to community challenges. This drives DPU to continually push boundaries in a typically slow-changing industry. DPU serves approximately 9,662 customer accounts, which represent 17,950 citizens. DPU's market includes 5,535 single family and 3,254 multi-family residential units, 654 commercial and 219 accounts serving LANL, LAC, LA Public Schools (LAPS) and Los Alamos Medical Center (LAMC).

Electric power for LAC and LANL is provided through the Los Alamos Electric Coordination Agreement (ECA). ECA was signed in 1986 and renewed regularly with the current term expiring in 2025. Through ECA both parties contribute generation and transmission resources and share costs based on respective energy consumption and demand requirements. LANL purchases approximately 80% of the electricity procured. Power is distributed by each party through its own distribution network.

LANL is also DPU's largest water customer, purchasing approximately 30% of water produced. DPU provides wholesale water to LANL for distribution through its infrastructure. In 1998 DPU acquired the water production system from Department of Energy (DOE). Having one very large customer using a large percentage of water and electric resources and paying an equitable share for costs allocated for each of these utilities provides economies of scale for the rest of DPU's customers.

Requirements and expectations (**Figure P.1-6**) for utility services are similar for all customer groups across all utilities. All customers experience inconvenience when utility services are interrupted and want quick restoration. Commercial customers have additional concerns as they can experience loss of revenue if business operations are affected. LANL's critical national missions and other large customers could also be compromised by utility disruption. Utility and infrastructure requirements are necessary for LAC to be competitive for economic development opportunities.

Market/ Customer Group	Key Requirements	Results (Figure)
Residential: 5, 4, 3, 6	1. Reliability 2. Quality Performance 3. Affordability/Value 4. Excellent customer service 5. Online/in-person access 6. Renewable energy sourcing	7.2-3
Commercial: 1, 3		7.2-2
Large Customers (LANL, LAPS, LAMC, etc.) 1, 2, 6		Key Account Outcomes (Figure 3.1-2)
Stakeholder Group	**Key Requirements**	**Results**
Workforce	• Safe work place • Job satisfaction/engagement • Communication • Recognition	7.1-27 7.3-5 & 7.3-8 7.3-12 7.4-2
Regulatory Agencies	Compliance	7.4-5 thru -8
LAC	• Revenue • Reliable utilities • Infrastructure development	5% GD/ED revenue + fees & payments 7.2-9 7.2-2 & -3 7.1-16
Community Partners	• Environmental care • Trustworthy • Innovative	7.4-17 7.4-10 thru -16 7.1-25a

Figure P.1-6 ***DPU rigorously tracks key measures to ensure we meet customer requirements.*** *Note: Numbers under customer groups reflect relative importance of key requirement.*

Deployment	Learn	Integration with MVV, CCs Requirements Strategy
Electric	2015 2017	M, V, VC, VNR, CCA, CCS, CCR LAC revenue Value of Solar Smart metering SO1.4-5, SO5.1-2
Gas	2016	M, VC, CCA Lower rates SO1.2, SO5.4
Water	2016	M, VC, CCA, CCS LAC revenue SO1.1, SO5.3
Sewer	2017	M, VC, CCA SO1.3, SO5.5
SO=Strategic Objectives (Figure 2.1-4)		

Figure P.1-7 ***Rate studies provide data that informs SMT strategy & decision-making***

Supplier (S) / Partner (P)	Key Requirements	Work System Role	Competitiveness Role	Communication Mechanism	Innovation Role
(S) Electric providers (25%)	Stable pricing	EP	Low rates	Contracts	Carbon neutrality
(S) Natural Gas providers (100%)	Quality, reliability	Gas supply	Low rates	Contracts	None
(P) LANL	Cost/risk assumption	EP	Low rates, shared risk	ECA	EP hydro infrastructure & carbon neutrality (80% of cost)

Figure P.1-8 ***Supplier network requirements mirror our customer requirements, enabling us to provide reliable & adequate utilities***

One of the key requirements of all customers is to keep rates competitive with our neighbors. Our approach to this important need is to conduct regular rate studies (**Figure P.1-7**). For example, we completed an electric rate study to unbundle rates and implement a "value of solar" tariff. This will poise us for effective implementation of advanced metering infrastructure and rate designs, which addresses key requirements of billing accuracy, competitive rates and sustainability. These studies, directed through our strategic plan (SP), monitor performance on key customer requirements.

P.1b3 Suppliers and Partners Although DPU owns a significant amount of its utility supplies, we purchase natural gas and a portion of the required electricity to meet customer demands. Because of the importance of utility reliability in this remote County with a national laboratory, we carefully select suppliers who can seamlessly provide products that meet or exceed our customer requirements. As shown in **Figure P.1-8**, key suppliers contribute to enhancing competitiveness and innovations that our sophisticated customer base expects.

P.2 Organizational Situation

P.2a Competitive Environment

P.2a1 Competitive Position We are legally chartered to provide utilities for LAC and are the sole provider of such services. However, we operate as a highly innovative, competitive utility that exceeds customer expectations. This approach reduces the possibility of privatization, outsourcing, or consolidation.

There is limited growth in existing services due to county boundaries, but DPU has made cycles of improvement to address business growth in areas such as "smart meters," renewable energy options, and infrastructure to accommodate electric vehicles (EVs). Another area of growth is over a decade of expansion of non-potable water infrastructure utilizing grants. Growth also includes marketing power scheduling services to Kirtland Air Force Base and Sandia National Laboratory in Albuquerque.

P.2a2 Competitive Changes Collaboration with LANL has allowed DPU to become an electric power producer, which has made us very competitive with investor-owned, for-profit utilities. Our strategic planning focuses on energy innovation by studying alternate sources around the globe. Membership in Utah Associated Municipal Power Systems (UAMPS) has allowed access to innovative EP technologies such as nuclear small modular reactors (SMR).

P.2a3 Comparative Data For the past four years, DPU has undertaken a systematic effort to acquire and use more comparative data for all key work system measures. **Figure P.2-1** shows our key sources of comparative data; competitive data is gathered during rate studies.

Within Industry	Outside Industry
APPA APGA AWWA BAR Net Promoter Score (NPS)	Baldrige Award Recipients (BAR) Gallup NPS

Figure P.2-1 ***In 2018 DPU made a concerted, strategic effort to obtain benchmarks for key measures***

Area	Strategic Challenges (SC)	Strategic Advantages (SA)
Business	Reliance on LANL Rate increases for infrastructure Unbundle rates & implement "value of solar" tariff Rapidly changing electrical industry with alternative technologies Additional SCs AOS	Ownership of low-cost electric & water supply Competitive rates Vertically integrated supply chain enables diversified options LANL as a very large customer of water & electric services LANL partnership: innovations by sharing financial risk
Operations	Flat or declining sales Water revenues down due to conservation Aging infrastructure makes it hard to maintain reliable service Aging meters result in lost revenues for electricity, gas & water New gas & environmental regulations	LAC initiatives (i.e. industrial park) can lead to more customers or utilities sales Good utilization of funds Excellent maintenance & CIP execution
Society	Environmental issues such as groundwater contamination Concerns from public for placement of new water wells Distributed generation (roof top solar)	Renewable electric generation resources Customers want renewable energy & are willing to pay
WF	Recruitment of certified water & wastewater operators Need to cross train Increasing work load Union contracts limit salary structure for experienced WF	Quality staff with expertise Supportive management, close-knit culture Competitive salaries & benefits

Figure P.2-2 ***Strategic challenges & advantages are determined during annual SP, flowing from State of the Utility, SWOT & White Papers***

Limitations in using industry comparative data for strategic planning, process improvement and daily operations center on our high desert, rugged, remote location and that we provide electric and gas services. Most municipal utilities do not. We must also consider our small customer base with one very large industrial customer when using comparisons.

P.2b Strategic Context SMT conducts annual SP; part of the first morning consists of a Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis that leads directly to updating strategic challenges and advantages (**Figure P.2-2**).

P.2c Performance Improvement System DPU strives to systematically improve performance at all levels of the utility (Figure P.2-3). DPU has used the Baldrige Excellence Framework for self-assessing performance since 2008 and QNM feedback reports and Baldrige assessments guide improvement efforts, especially during strategic planning. DPU's approach is Plan, Do, Study, Act (PDSA) to guide decision making, continuous improvement initiatives, organizational learning and innovation processes. This approach is used throughout DPU by leadership (system-wide), in key work processes (KWPs) (Figure 6.1-2), and down to team and individual level.

Ways We Study Performance
Weekly Team Meetings
Job Tail-Gate Meetings
Post-incident Reviews & Root Cause Analysis
Monthly SMT Performance Reviews
Review Dashboards & Regulatory Compliance Data
Monthly SMT 1-on-1 Progress Meetings with the UM
Monthly Budget & Customer Consumption Reporting
Quarterly SMT Budget Reviews
Quarterly Action Plan Reviews
Quarterly Department-wide Performance Reports
Quarterly Asset Management Team Meetings
Quarterly Condition Assessment to the BPU
Mid-year Personnel Performance Coaching
Annual PPA & Individual Planning
Annual Department-wide Performance Reports
Annual AMT Governance Team Meeting
Annual department-wide budget review & planning
Annual review of LA Scores during the budget planning process
Annual review of KPMS during strategic planning

Figure P.2-4 ***We study performance in multiple ways to ensure we're meeting customer expectations & regulatory guidelines***

Figure P.2-3 ***We have embedded improvement cycles through our Performance Improvement System***


This symbol represents DPU performance improvement throughout this document.


This symbol represents DPU innovation initiatives throughout this document.

PLAN Our system-wide PDSA approach begins with MVV to clearly define direction. Strategic goals and objectives are developed through annual SP (Figure 2.1-1) to align with MVV. Key Performance Measures (KPMs) are identified for each strategic objective to demonstrate at a high level how successful we are at achieving each of our strategic objectives (SOs).

DO SOs guide development of supporting long-term and short-term initiatives and action plans (APs) with key projects, services, processes and workforce development identified and resourced with input from BPU, County Council, Asset Management Teams (AMT), customers, community, partners and stakeholders. APs are used to set SMT individual annual performance goals and WF performance goals where appropriate. Performance measures may also be identified for initiatives and routine operations. These may be the same as the KPMs, or may further refine performance evaluation measures at a lower level.

STUDY As projects and APs progress, performance is regularly tracked and analyzed through various means throughout the year (Figure P.2-4). On a less frequent but regular basis, DPU also analyzes results from customer, employee, safety, and regulatory surveys and audits.

ACT Using methods for analyzing performance, improvements occur throughout the year to account for shifting priorities, opportunities, threats and challenges. This could include operating procedure modifications, WF restructuring, budget adjustments, AP revisions, and project deferrals. Frequent reporting mechanisms, such as weekly team meetings allow for real-time course corrections as needed prior to more formal assessments and reporting. During mid-year coaching, supervisors may adjust individual performance goals to more closely align with revised action plans, ensuring that critical changes are disseminated throughout the workforce as needed.

At the KWP, team and individual level, PDSA takes a simpler approach. An improvement effort may start with Plan from an SP action plan or annual PPA process, or may arise from Do or Study steps as WF maintains, operates, monitors and delivers products and services. For example, AMTs spend considerable time studying KWPs before creating a plan for refurbishment or replacement.

1: Leadership

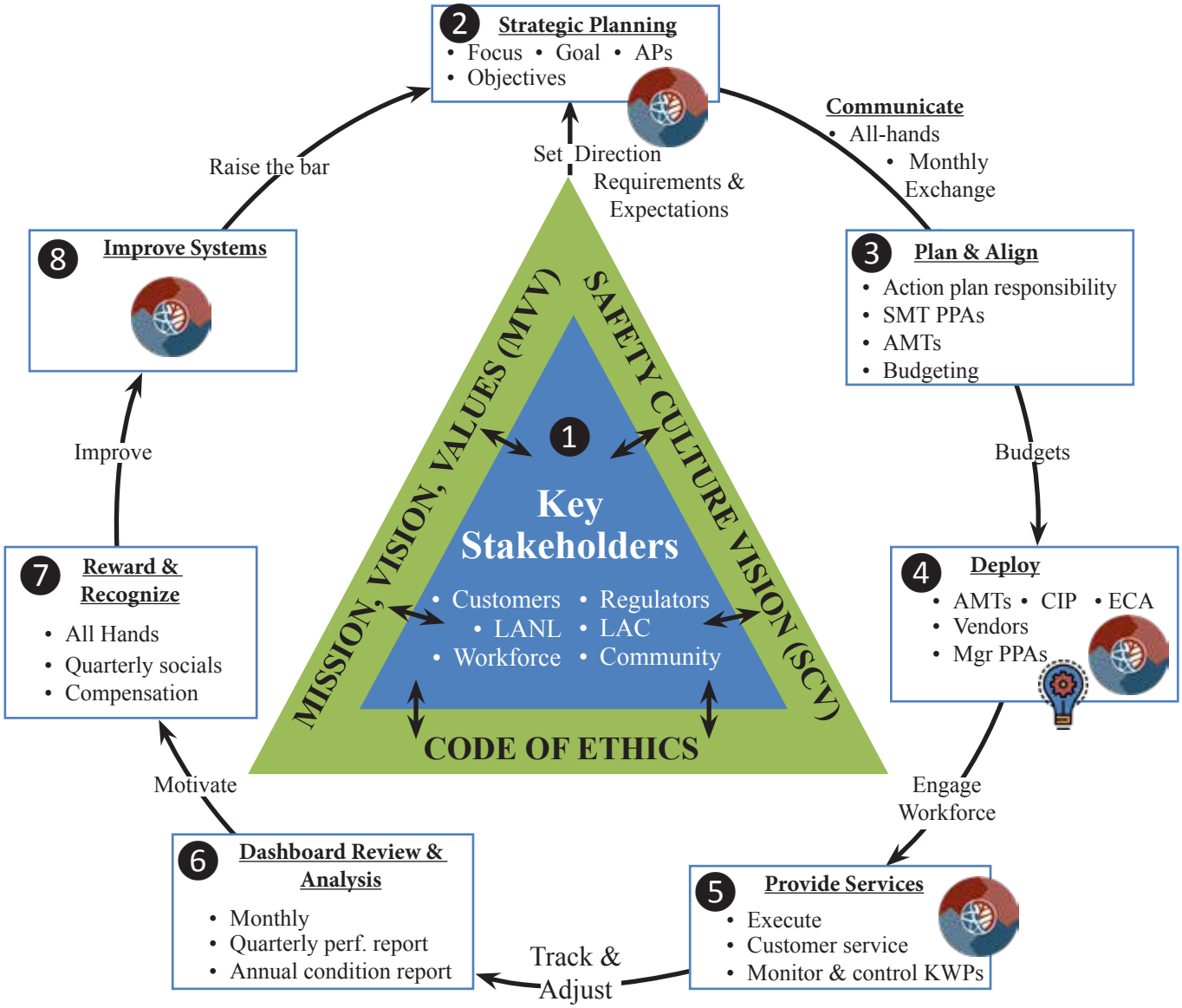


Figure 1.1-1 ***Our Leadership System (LS) begins with customer & stakeholder requirements, which are addressed within the culture created and sustained by our MVVs, Safety Culture Vision and Code of Ethics.***

1.1 Senior Leadership Our Leadership System (LS, **Figure 1.1-1**) was developed by the Senior Management Team (SMT). It is used to guide leaders at every level in a unified manner to systematically deploy the MVV by providing them with the tools to model our values and lead consistently.

The LS is embedded in our culture and sets expectations for leaders and employees at all levels in the organization. It begins with our stakeholder's requirements and expectations ❶. All employees are expected to exemplify our Safety Culture Vision and MVV. Leaders are responsible to model these values, communicate, budget, engage the workforce, track and adjust as needed, motivate, improve and raise the bar. These are all responsibilities that cannot be delegated by any leader at any level. The LS is one of the Guiding Systems in the Enterprise Systems Model (**Figure P.1-0**). Arrows throughout the center of the model indicate how deployment and integration take place across all aspects of leadership – it is not "once and done" and is not always linear. SMT models our values to set strategic direction and communicate ❷ with the workforce. Leaders organize, plan and align ❸ the work for effective deployment ❹. Services are provided ❺ using the key work processes (KWPs) (**Figure 6.1-2**) which have identified key performance measures (KPMs) to analyze performance using a dashboard review ❻. The workforce is rewarded and recognized ❼ for the work accomplished based upon the ability to meet stakeholder requirements and expectations. We learn from continuous improvement at every level ❽ using the PDSA Improvement Process (**Figure P.2-3**). We measure the effectiveness of our LS and commitment to our vision and values through the achievement of our annual goals aligned to our strategic objectives (**Figure 2.2-3**).

1.1a1 Vision and Values

1.1a1 Setting Vision and Values SMT consists of the Utilities Manager (UM), four deputy managers and Public Relations (PR) Manager. They set, affirm or modify mission, vision and values (MVV) in strategic planning (SP) Step ❷ to ensure

Year	Leadership Cycles of Learning
2009	Establish AMTs to lead infrastructure decisions
2010	Create DPU code of ethics; SMT Monthly Exchange
2011	Developed & deployed Compliance Calendar
2015	Establish annual All-hands meeting; Critical Skills Matrix
2016	Establish financial policies
2018	Focus on measures & benchmarks; increase frequency of dashboard reviews

Figure 1.1-2 ***Cycles of Learning for the LS have created an effective leadership process that responds to WF and SH needs.***

Deploy MVVs
All WF: • New employee orientation • WF training • Poster displays in each division office • Emergency contact cards issued to WF • Exchange meetings rotation • "All-Hands" Meetings
Key Customers/SHs/Key Suppliers/Partners: • Annual Report • Quarterly Report • Website • Posters in County facilities • Procurement elements
Leaders Personal Actions reflect commitment to values, legal & ethical: • VE-Create ethics code with customer focus • VC-Complete financial disclosure/conflict of interest • VE-Create Safety Culture Vision • VS-Promote transparency through SM • VS-Establish SP objectives reflecting MVV • VNR-Support FER clean energy mandate

Figure 1.1-3 ***MVV is deployed throughout DPU and acts as a unifying force in our community.*** *See Figure P.1-2 for VC, VE, VS, VNR*

alignment with our purpose. MVVs are reviewed annually by Board of Public Utilities (BPU) and SMT. This process has resulted in modifications to MVV over the last several years to better align and address focus areas and DPU's overall direction. SLs deploy MVV through the Leadership System (LS) by making decisions and strategies consistent with MVVs, Safety Culture Vision and Code of Ethics (Figure 1.2-5). Examples that reflect SLs' commitment to MVV are shown in Figure 1.1-3.

1.1a2 Promoting Legal and Ethical Behavior Leaders' personal action demonstrating commitment to legal and ethical behavior are shown in Figure 1.1-3. Promoting an environment that requires such behavior goes beyond serving as role models - processes deployed throughout the Utility are shown in Figure 1.1-4.

Processes for Promotion of Legal & Ethical Behavior
Open and Transparent - Post agendas, meeting minutes and reports to web and follow open meeting laws; complete conflict of interest disclosures
Bid fairness - Conduct an impartial bid evaluation process for all bids and RFPs
Procurement training and processes to ensure fair processes to treat all vendors equally
Procedures governing entry to private property
Develop/deploy **code of ethics**
Compliance Calendar (AOS) ensures meeting regulatory and legal requirements

Figure 1.1-4 ***Leaders actions demonstrate their absolute commitment to legal and ethical behavior throughout DPU***

Leaders have created an organizational environment that requires legal and ethical behavior through such processes as the Compliance Calendar, which was established in 2011 and has been continually improved. The calendar, available on site (AOS), is distributed to SMT monthly to ensure legal compliance with regulatory requirements. This has improved quality and timeliness of reporting and compliance with multiple regulatory requirements (Figure P.1-5). DPU partners with Los Alamos County (LAC), contractors and Los Alamos National Lab (LANL) to provide services and run operations in compliance with all laws and regulations [5]. SMT also empowers the workforce (WF) to proactively solve issues in a timely and legal manner.

1.1b Communication SLs create an environment to encourage employees to discuss ideas and facilitate resolution when there is disagreement (Figure 1.1-5). To improve communication and engagement for all employee levels with the UM, an SP action plan (AP) was implemented in 2010 to hold SMT Monthly Exchange meetings with work groups. These meetings allow employees to bring up improvements or problems, discuss processes, highlight successes and help all employees understand their role to achieve goals, objectives and needed changes. Monthly meetings are now rotated through each division twice per year. A further engagement improvement began in 2015 to conduct annual all-hands meetings, that include overview of MVV, safety, strategic goals, and WF recognition (promotions, awards, etc.) to engage all employees.

SLs Communicate & Engage						
Approach	Freq	2-way	WF	C/SH/P	Decisions	Motivate
All-Hands Meeting [7]	A	√	√		√	√
Monthly Exchange	M	√	√		√	√
Social Media	24/7	√		RBC LAC	√	
Socials	Q	√	√			√
Strategic Plan	A		√		√	
PPAs	A	√	√			√
Reward & Recognition	Q	√	√			√
AMT	A, Q	√	√		√	
Reports	AQM		√	All		
Community Support	Var	√	See Figure 1.2-6 All C/SH/P			
(C/SH/P)=Customers/stakeholders/partners, R=residential, B=businesses, L=LANL, RA= regulatory agencies, C=communities; Frequency: M=monthly, Q=quarterly, A=annually, Var=variable						

Figure 1.1-5 ***DPU deploys key decisions and motivates the WF toward high performance with customer focus in a variety of ways. Approaches vary in frequency, format and target audience.*** *See also communication and engagement in the LS and communication methods in Figure 3.2-3*

1.1c Mission and Organizational Performance

1.1c1 Creating an environment for success DPU focuses on the mission and provides forums for agility (Figure 1.1-6). Intelligent risk-taking is discussed in the context of SP as DPU moves toward achieving aggressive goals such as carbon neutrality by 2040.

Create Environment for Success Now & Future	
Achieve mission	• Goal setting 2 & dashboard reviews through SPP 6 • Annual WF goals through PPA process; mid-year coaching 3 4 • Reward and recognition 7 • SMT Monthly exchange • Execute mission through AMTs • Community outreach
Org. Culture	• MVV 1 • Ethics Code customer focus 1 • Safety Culture Vision 1 • Citizen ad-hoc meetings
Cultivate agility, accountability, learning, innovation, risk-taking	• **Learning & Agility:** investment in WF training & development; critical task matrix • **Organizational Learning:** Accident/near miss process, SPP, SMT lessons learned, complaints, CCC • **Innovation:** Deploy fact-based decision-making tools to create a sustainable organization (cost-benefit analyses, feasibility studies, engineering evaluations and 10-year financial forecasts) • **Innovation:** Inventory (Figure 7.1-25a) • **Innovation:** NMMEAA bonding arbitrage for discount gas (AOS) • **Innovation:** Financial policies guide rate changes • **Risk-taking:** AMTs, capacity & condition assessments, master plans, renewable energy product line, non-potable water system expansion, carbon-neutral goal
Foster customer engagement	• Accurate meter reading/prompt billing • Fiscal accountability & transparency 6 • Competitive rates with efficient & effective operations • Prudent capital & commodity planning • Ad-hoc citizen committee (i.e FER)
Foster WF engagement	• Code of Ethics 1 • Safety culture vision 1 • Wellness initiatives, recognition 7 • WF biennial survey outcomes
Future leaders	• Critical Skills matrix • Succession planning • Mentoring Process • PPA coaching process • Training, cross-training • Apprentice programs

Figure 1.1-6 ***SLs actively develop and assess approaches for success. Step numbers refer to Figure 1.1-1.***

The critical skills matrix was a 2015 innovation to provide mission achievement, agility and to develop future leaders. For key positions, critical duties are defined and employees with similar duties/skills are assessed as to their readiness to carry out key duties. This matrix is used to 1) direct training of staff to assume mission critical tasks, 2) show employees what training they need to be competitive for that position and 3) show management where resources need to be placed to avoid disruption of mission critical activities. In addition to the matrix, SLs take a holistic view of the entire DPU WF resources to ensure in-house succession capability.

SLs participate in developing future leaders by mentoring, apprenticeship programs and supporting LAC Leadership Academy training for employees. DPU works with LAC to successfully promote from within.

1.1c2 Creating a Focus on Action SLs create a focus on action through the LS (Figure 1.1-1) with systematic processes to review the organization's objectives with dashboards 6 starting at the UM/Deputy level. Those dashboards flow down to reviews between Deputies and superintendents. Each SL and superintendent monitors a variety of measures and actively seeks benchmarks for all key measures. Needed actions are identified in 3 and expectations are set in 4. When possible, DPU focuses on actions that have multiple benefits to DPU or stakeholders (SH). For example, the sewer or wastewater collection (WC) system assessment process enables us to complete targeted repairs, use trenchless technology to minimize environmental impact, save money and develop a new WF capability. The most recent improvement was made under the guidance of the WC AMT which researched and adopted the National Association of Sewer Service Companies Organization (NASSCO) Pipeline Assessment Certification Program (PACP). We determined that it was cost effective to train one of our employees as a NASSCO PACP trainer and move

Create a focus on action to:	
Achieve mission 1 5	• AMT actions • PPA goals & coaching • Performance measures linked to budget
Improve performance 8	• **Figure P.2-3** and PDSA throughout DPU, such as: o Video assessments of sewer systems o Enhanced GIS capabilities o O&M software for WWTP, WP & hydroelectric plants
Identify needed actions 2 3 6	• Strategic Planning (**Figure 2.1-1**) • AMT process optimizes repair/replace • Dashboard review of performance trends/ benchmarks
Set expectation 4	• SP Objectives & measures • PPAs and coaching • Benchmarks & targets for KPMs
Create & balance value for customers/SH 5 6	• Timing of CIP with LAC road projects reduces costs of both projects • Make intelligent in-house vs. contracting decisions (i.e. engineering designs, GIS) • Produce, not purchase electric power • Utility rate studies to reduce price volatility, ensure costs are correctly allocated to users, build reserves for major CIPs • Independent studies to measure industry trends, cost of service, commodity availability & cost, new technology & innovative opportunities • Value of solar study • Focus on reliability (SAIDI)
Personal accountability 3 4	• PPA reviews • UM performance review by BPU using SP goals • Condition Assessment reporting to BPU by Deputies

Figure 1.1-7 ***Leaders execute the mission, improve performance and balance values for customers and stakeholders.*** *Step numbers refer to Figure 1.1-1.*

certification training in-house. In the spirit of partnering with our neighbors, DPU offers training to SHs, DOE and nearby communities at cost.

Creating and balancing value is a customer key requirement. Customers with distributed generation (DG) or rooftop solar, who place electricity on the grid are compensated at retail rates via a net-metering model. This can result in DG customers offsetting the electric bill when the DG is not producing power (such as at night) and DPU is furnishing the power. As the number of DG customers increases, non-DG customers see this as an unfair subsidy. Focusing on the inequity we conducted a Value of Solar (VOS) study to determine the true value of DG to all customers. We intends to institute the VOS tariff to fairly compensate DG and still recover expenses fairly from DG and non-DG customers alike when the sun is not shining.

Year	Governance/Societal Cycles of Learning
2010	Code of Ethics
2011	Safety Culture Vision
2013	Ethics training
2014	BPU Policy & Procedures Manual: FER
2015	BPU annual self-assessment

Figure 1.2-1 ***Organizational learning has created a culture of ethics and safety***

1.2 Governance and Societal Contributions

1.2a Organizational Governance

1.2a1 Governance System County Council appoints the five Board members to staggered five-year terms to govern DPU. Members must complete and submit financial and conflict of interest documents required of all senior LAC personnel. DPU is an enterprise fund established by County Charter to be financed and operated like private business enterprises. The UM is hired by BPU and is accountable for SL's actions and all performance results. The rest of SMT is accountable to the UM for strategy, action plans, goals set in PPAs, daily operations and supervision in their respective areas. The SP is provided to the BPU for approval, providing accountability for strategy. Fiscal accountability is assured through budget approval; BPU reviews and recommends approval of budgets and rates. Council has final approval authority for budgets and rates.

In the closed-loop governance system (**Figure 1.2-2**), citizens ❶ elect County Councilors ❷ that appoint the BPU ❸. BPU enters into an employment contract with the UM ❹, who is responsible for daily management ❺. Every employee ❻ is responsible for understanding how their work impacts citizens ❶.

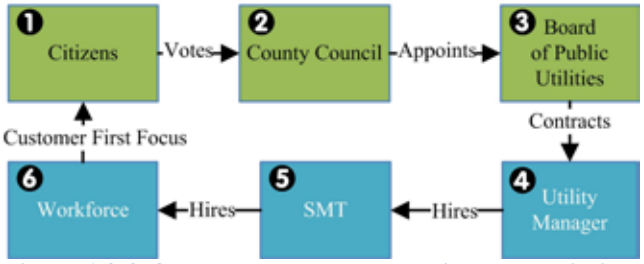


Figure 1.2-2 ***Our governance structure keeps DPU independent, responsible and in touch with our customer citizens***

Transparency of operations is achieved through a variety of communications and interaction with BPU. Most notably is the extensive condition assessment presentation deputy utility managers give BPU quarterly (AOS).

Selection of board members is done through a process like hiring: recruitment, interviewing by a BPU panel and appointment by the Council. In 2014 DPU enhanced the recruitment process to include social media, a brochure, ads, press releases, and flyers posted in libraries and stores, etc. These enhanced approaches have resulted in more applicants and better diversity that reflects our communities (**Figure 7.4-4b**).

DPU undergoes multiple audits (**Figure 1.2-3**). Using final reports and auditor feedback, DPU takes immediate action or folds more significant changes into SPP. Our effectiveness in using audit findings is reflected in key dashboard results. For example, we radically changed the line locating process based

Type	Focus of Audit
5 yr. Mgt. Audit (External)	Enterprise-wide audit of efficiency& effectiveness of operations
Annual $ Audit (External)	CAFR plus DOE requirements GAAP/GAS compliance Single Audit Act
Annual PSB Gas Audit (DOT/PHMSA)	Varies by year: public outreach, procedures, operator certs, leak survey/line hits, etc.
NMED	WWTP inspection

Figure 1.2-3 ***Independent audits ensure key work and support processes are meeting regulatory requirements***

on audit findings resulting in improved dashboard measures which have been sustained. SH interests are protected in a number of ways. We use their requirements as input into SP and we finalize SP by balancing their needs and providing value. We also listen and learn daily, weekly and monthly (**Figure 3.1-2**) and respond to their concerns.

Succession planning for leaders is based on our value of promoting from within. Our turnover rate for senior leaders is very low; the last UM had 24 years tenure and the current UM has been in DPU for 25 years. With two exceptions when there were no DPU internal applicants, all SMT members are internal promotees.

1.2a2 Performance Evaluation DPU undergoes a management audit every five years as required by Charter. BPU evaluates performance of the UM annually; all other SLs and superintendents are evaluated annually in the PPA process. In 2014, BPU decided to evaluate their own performance on an annual basis. The results of these evaluations are used to improve effectiveness of leaders and BPU. Performance of LS (**Figure 1.1-1**) has been improved with the addition of the Code of Ethics and Safety Culture Vision (SCV).

Other than expenses, BPU members are not compensated. Compensation for all non-union WF members, including SLs, is based on performance: Meets, Exceeds, and Far Exceeds ratings earn varying raises (i.e. typically 2%, 3% and 4% respectively).

1.2b Legal and Ethical Behavior

1.2b1 Legal and Regulatory Compliance BPU and Council meet all requirements for the NM Open Meetings Act (NMOMA) to ensure all actions and deliberations are conducted in public view. All procurements of goods and services are conducted in accordance with the LAC procurement code. Utilities rate changes are first debated in a public hearing before BPU and then again before Council when the rate ordinance is adopted. DPU operates under numerous state and federal permits and compliance is of the highest priority. DPU implemented and monitors a Compliance Calendar for tracking compliance issues for regulatory agencies (**Figure P.1-5**). We address any adverse impacts of products and services through regulatory compliance and strive to minimize impacts through improving energy sourcing and innovations, such as reducing our reliance on coal.

We anticipate public concerns through many listening processes (**Figure 3.1-2**). We proactively prepare for and address these concerns with future products through a robust citizen ad-hoc meeting process. See **3.1b2** for a more complete explanation of the process and results for Future Energy Resources (FER) committee.

Key compliance and risk processes, measures and goals are shown for each area of operation in **Figure 1.2-4**. More processes, measures and goals are AOS.

1.2b2 Ethical Behavior DPU leaders require all operations to be conducted in a legal and ethical manner. Key processes to promote and ensure ethical behavior include a Code of Ethics which was formally adopted by BPU in 2010. In 2013, DPU initiated a process for training on and deploying the Code of Ethics (**Figure 1.2-5**). New Employee Orientation includes this training to ensure ethical behavior throughout DPU. Education and reinforcement measures are on the DPU dashboard. Key processes and measures are shown in **Figure 1.2-4**.

Promoting ethics with suppliers, partners and SH is done primarily through contracts and other legal agreements. Ethical breaches are included in dashboard reviews.

1.2c Societal Contributions

1.2c1 Societal Well-Being DPU considers societal well-being and benefit as part of both strategy and daily operations. Four of our six strategic focus areas contain objectives which address societal wellbeing; Operations & Performance, Financial Performance, Customer & Community and Environmental Sustainability (**Figure 2.1-4**).

In daily operations, monitoring, inspection and surveying (higher level reporting as shown in **Figure 1.2-3**) keep our customers and community safe by providing high quality water, detecting and repairing gas leaks and maintaining electric poles and lines and collecting and treating WW to be safely released into the environment.

DPU contributes to the well-being of environmental and social systems by planning for sustainability (CCS) and

Area	Key Process	Authority	KM	Goal
R: Finance	Audits	NMOSA	F	NV
R: Finance	Internal Controls	DPU	V	NV
R: Finance	Loan Covenants	Bond Trustee	V	NV
L: EP	IRP	PUP*	C	NV
L: WP	Dam inspection	NMOSE	F	NV
L: Gas	Leak Survey	NMPRC	TC	NV
L: WWTP	Discharge Monitoring	NMED	AV	NV
L: DPU	Safety	NM OSHA	V	NV
E: WF ethics	Code of Ethics	Code	Tr	100%
E: CI	Governance	LAC	AC	100%
E: SH PS	Contracts	LAC	AC	NV

Area: R= Risk; L= legal/regulatory; E= ethical; KM=Key Measure; F= findings; T=on-time; A=accurate; C=complete; Tr=trained, V=violation; NV=no violations; CI=Conflict of interest; SH=Stakeholders, PS=partners, suppliers

**Typical investor-owned utilities are required to do this by NMPRC; we do it for prudent utility practice (PUP).*

Figure 1.2-4 ***Our industry requires many key legal compliance processes and measures; above is a sampling from across our business enterprise.***

We will be:	Approach/Deployment
1. Trustworthy	• Give correct & and up to date info • Never enter residence without occupant presence • Respectful of customer's property • Never give appearance of violation of trust
2. Professional	• Provide info in areas of expertise • Never allow personal feelings to interfere • Be best at our craft • Seek ways to improve
3. Service-oriented	• Customers are the reason we are here • Be engaged, responsive & go the extra mile • We are friendly, receptive & courteous • Keep appointments; be on time
4. Fiscally Responsible	• Make decisions to preserve/improve service • Consider rate impact on all financial decisions • Prudently consider financial impacts • Be transparent & follow all laws
5. Organized	• Respect & follow DPU processes, policies, rules & regulations • Be efficient, make decisions based on facts • Present information concisely & factually
6. Communicative	• Listen to the customer • Be approachable,& willing to dialog • Allow others to add input & value • Keep customers informed
7. Collaborative	• Cooperate with other groups & individuals • Build consensus & gain value from diverse opinions •Be a team member
8. Progressive	• Promote intelligent, thoughtful solutions • Maintain consistent standards • WF & customer safety are of paramount importance
9. Innovative	• Promote proactive, new approaches to setting goals & conducting business • Keep abreast of technological developments • Incorporate safety & improvements to practices and processes
10. Fair	• Treat all with courtesy & respect • Realize that financial decisions impact all • Apply rules equally to all • Do not disadvantage local businesses

Figure 1.2-5 ***DPU Code of Ethics is integrated with our four values and broadly defines the characteristics of our culture***

valuing natural resources (VNR). DPU's planning processes enabled us to increase renewable energy generation and add smart-grid components to more efficiently manage some of these resources. Northern NM experienced a wide-spread natural gas outage with thousands losing service in 2011. Restoring services safely is labor intensive and took weeks for the utility provider to get all its customers back online. While we were not affected by this incident, we proactively looped our high-pressure gas system to create redundancy to be able to backfeed gas to our customers. A curtailment procedure was also created permitting us to quickly reduce customers' gas usage. If communities quickly reduce the demand during a supply shortage, we elimante the outage and the inconvenience of having to re-light pilots one property at a time.

To address economic systems, DPU evaluates pricing strategies to influence customer behavior in changing market conditions. Periodic rate and cost of service studies inform decision making and action planning to generate and use revenues to provide excellent service with competitive rates (Objective 2.2, Figure 2.1-4).

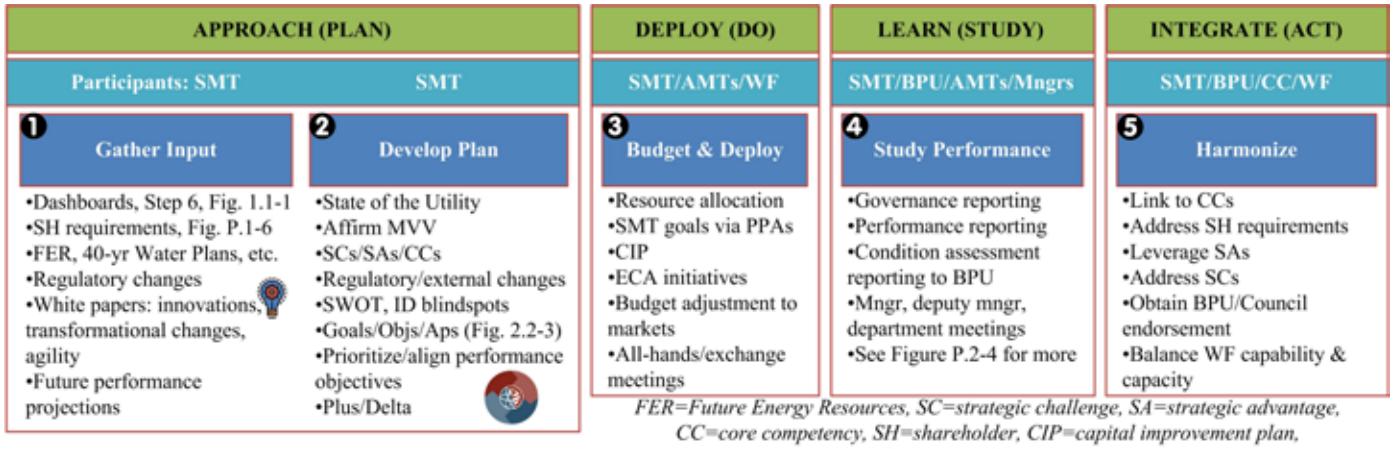
1.2c2 Community Support Key communities are identified as those that receive or are impacted by our products and services. Key communities include Los Alamos, LAC and White Rock. We determine areas of DPU involvement by those that align with our values and core competencies and that we can contribute to positively. Educating the public on energy and water conservation, including presentations at organizations such as League of Women Voters, Sierra Club and Rotary, are examples of support aligned to our values. With less than 100 employees providing complete utilities to two communities and a national lab, we fund a local contractor, currently Pajarito Environmental Education Center (PEEC) to plan and conduct major events and activities in the community and at public schools.

Ways we contribute to improving	
*Participate in Earth Day event annually	SL, WF
Serve on LACED committee	WF
*Home Expo (energy & water)	SL
*Water Festival	SL, WF
Donate leave to LAC employees in need	SL, WF
United Way	SL, WF
DPU Christmas Families	SL, WF
Engineering student internships	SL, WF
*Home Tours	SL
*Electric Car Show	SL, WF
*LAPS Energy & Water Conservation Lessons	SL

**Highlights those activities funded by SLs and provided by PEEC*
SL=senior leader involvement; WF=workforce involvement

Figure 1.2-6 ***We actively support and strengthen key communities.***

2: Strategy



FER=Future Energy Resources, SC=strategic challenge, SA=strategic advantage, CC=core competency, SH=shareholder, CIP=capital improvement plan, ECA=electric coordination agreement

Figure 2.1-1 ***Our annual SP process is a key element of our Leadership System (Figure 1.1-1) and enables us to achieve our vision of "high performance." By considering extensive SH input we ensure we "match our community;" we seek new and transformational ideas through research and professional organizations and remain open to new ideas to develop "innovative utility solutions."***

2.1 Strategy Development SMT has engaged in a highly robust planning process for many years, which has enabled DPU to achieve excellence and innovation in many ways (Figure 7.1-25a). Within the past five years, the process has been aligned to Baldrige criteria, formalized and improved annually.

2.1a Strategy Development Process

2.1a1 Strategic Planning Process (SPP) Our annual SPP consists of five key process steps (Figure 2.1-1). ❶ consists of gathering inputs from many sources and also preparing and updating the previous plan. ❷ is the senior management team (SMT) workshop, typically two days, where all input is used throughout eight key agenda activities shown. Each SMT member provides status of action plans to achieve prior year's goals, other achievements, challenges, budget status and dashboard reviews and shares lessons learned. Review of work accomplished provides a framework for understanding operational performance and what work needs to be completed. The workshop concludes with a PDSA cycle and improvements such as in 2017 when we added CIP/FERs/40-year Water Supply Plan initiatives so that a broader understanding of the entire scope of work is considered when determining new goals. In ❸, deployment to AMTs and WF begins in order to allocate resources. Once budget and SP are

finalized, the final plan is approved by BPU and is then further deployed to the entire WF through publication, all-hands and exchange meetings. DPU formalized SPP in 2009 and achieved many cycles of learning (Figure 2.1-2). ❹ occurs on two levels: we learn about the SP process and adjust agenda and format annually to capture current needs and mandates. We also learn about the effectiveness of deployment and integration throughout the year in the many ways we study organizational and operational performance (Figure P.2-4). Studying performance is the primary source of action plan modification. Harmonize ❺ closes the loop with stakeholder (SH) requirements and strategic consideration by scanning the final plan for core competencies (CCs), SH, workforce (WF), strategic advantages (SAs) and strategic challenges (SCs) alignment.

Year	SPP Cycles of Learning
2009	First formal 2-day SPP workshop
2011	Goals & terminology aligned to Baldrige criteria
2012	BPU input/formal acceptance of MVV
2013	AMTs align and deploy SP
2014	SPP aligned to Baldrige criteria, CCs & SC/SAs; PDSA on SPP
2015	Financial performance integrated into focus areas (previously was a separate focus area)
2015	White Papers to address innovation, agility
2016	Employee charrette input into SPP; SIs changed to Baldrige Focus areas
2017	CIP/FER/40-year water plan inclusion
2018	SPP focused on performance measures tracking.

Figure 2.1-2 ***Our transition from an informal to formal SPP has been accelerated by using the Baldrige criteria.***

SPP key participants are shown for each step in the planning process. SMT consists of the Utilities Manager (UM), Deputies and Public Relations Manager. Other staff have input during the Asset Management and budgeting processes and Monthly Exchanges ❸ which includes all DPU staff.

Short term (ST) planning horizons (1-5 years) are captured in action plans under appropriate objectives. Longer-term (LT) planning horizons (5-40 years) typically come from guiding documents such as the 10-year CIP, 40-year water plan, FER, etc. Initiatives from these are broken down to shorter term action plans and included under the appropriate objective in SP as part of gathering input ❶.

To provide transformational change and prioritization of change initiatives, we continually seek new ideas in the utility industry as well as achieving operational efficiencies. These are typically conveyed through white papers prepared by individual managers at SP. For example, smart meters, creation of new job descriptions, staffing changes, establishing financial goals and improving governing body relationships are examples of innovations we have implemented. The breadth of gathering input ❶ and the inclusion of WF capability and capacity in Step ❺, drive organizational agility. For example, we make agile WF changes to address new initiatives such as smart meters, GIS staffing and locates. WF capacity is considered as action plans and timelines are set.

2.1a2 Innovation Input ❶ is a source of innovative ideas, captured in the Innovation Inventory (Figure 7.1-25a). Leaders research and present new ideas on the first day of SPP. As SPP develops ❷, each objective is assessed for its potential to use innovation as part of action planning. Innovative opportunities that achieve efficiencies and align with Focus Areas are considered. They may be in the form of new technology, workforce training, modification of an existing process or planning multi-year resources. DPU evaluates innovative opportunities using several processes including cost/benefit analyses, feasibility studies, master plans and engineering analyses to determine if opportunities are intelligent risks. Evaluations of possible opportunities have included the Future Energy Resources (FER) study in 2015 and subsequent related studies and studies on smart meters, electric reliability, renewable energy, low flow turbine, broadband and internet. We conduct engineering evaluations for replacement of treatment plants, composting option and various utility infrastructure.

DPU's strategic goal to increase renewable energy sources began almost a decade ago. A feasibility report supported intelligent risk-taking; the power pool could support adding 10 MW solar photovoltaic (PV) and 3MW low flow turbine generation. SMT added the turbine generator as an SP goal and prepared a design/build request. Unanticipated federal funding became available and we built the low flow turbine at half the estimated cost, saving LAC about $4.5 million dollars. This opportunity happened because DPU was ready to take an intelligent risk as a result of SPP. A second opportunity from the same feasibility study included an option to place PV on a landfill. In 2014, LAC's PV facility was New Mexico's first on a closed landfill. These projects demonstrate that our planning efforts have been effective based on calculated risks that capitalize on strategic advantages and are in alignment with DPU focus areas, goals and objectives.

Current strategic opportunities (Figure 2.1-3) include considering what might happen if DOE did not extend the Electric Coordination Agreement (ECA). This would be a major shift in our business model. To prepare for the possibility, DPU joined UAMPs (46 community-owned power utilities) to be able to share electric resources and partner on large-scale new generation projects to stay competitive in a rapidly evolving power industry. For example, we are now three years into positioning ourselves to purchase 8MW in a

2018 Key Strategic Opportunities
1. Post 2025 ECA (LANL)
2. Conservation with AMI resources
3. Partner with Industry on DG expansion
4. LA ED initiatives
5. Council relationships - elections

Figure 2.1-3 ***Maintaining awareness of strategic opportunities through annual SWOT has enabled organizational agility in pursuing funding and partnering opportunities.***

600MW nuclear facility using SMR technology to be built in Idaho. This will provide safe, clean, base-loaded electric production.

2.1a3 Strategy Considerations are addressed through robust input gathering prior to planning ❶. Sources include stakeholder input, operational data and future projections. Market changes, such as the price of natural gas and supplier shortages resulting from regional and national natural disasters, are also considered ❷. We can project key regulatory changes that may impact our operations and plan to address them before we are in violation (i.e. White Rock WWTP). Analysis takes many forms depending on the data source. Most dashboard measures are trended and many have benchmarks to determine level of performance. Other data sources such as regulatory or technology changes,

Note: Strategic Objectives (i.e., 1.1, 1.2) have one or more action plans.	Timeline 2.1b1	CC 2.1a4	SC/SA 2.1b2	SO 2.1a2	S/L 2.1a1	SH 2.1b2	Figure
FOCUS AREA - OPERATIONS & PERFORMANCE GOAL 1.0 Provide Safe & Reliable Utility Service							
1.1 Water (WP/NP/WD) - Efficiently deliver safe & reliable water utility services	↑ Continuous ↓	A	O	2	S,L	R,C	7.1-7
1.2 Gas (GD) - Efficiently deliver safe & reliable gas services		A	O	2	S,L	R,C	7.1-6
1.3 Sewer (WC/WT) - Efficiently deliver safe & reliable sewer services		A	O	2	S,L	R,C	7.1-13
1.4 Electric (EP) - Efficiently deliver safe & reliable electric production services		A	O	2	S,L	R,C	7.1-1
1.5 Electric (ED) - Efficiently deliver safe & reliable electric distribution services		A	O	1,5	S,L	R,C	7.1-2, -3
1.6 Business Systems- Efficiently implement & maintain secure & reliable business systems		A	O	2	S,L	LAC	N/A
1.7 Utility control & mapping systems & processes are accurate, safe & secure		A	O	4	L	LAC	N/A
1.8 Develop a culture of continuous improvement		S	B	N/A	S,L	ALL	7.1-25a
FOCUS AREA - FINANCIAL PERFORMANCE GOAL 2.0 Achieve & Maintain Excellence							
2.1 Financial Performance - Achieve & maintain excellence	↓	A,S,R	B	2	S,L	LAC	7.4-7
2.2 Utilize revenues to provide a high-level of service while keeping rates competitive with similar utilities	↓	A,R	B		L	R,C	7.5a2
2.3 Meet financial plan targets by 2025	LT	A	B	5	L	LAC	7.5-1
2.4 Achieve workplans while operating within budget	ST	A	B		S	LAC	7.5-2– -7
FOCUS AREA - CUSTOMERS & COMMUNITY GOAL 3.0 - Be a Customer Service Oriented Organization That is Communicative, Efficient & Transparent							
3.1 Customer service processes & systems are efficient & user-friendly	ST	R	O,B	2,3,5	S	R,C	7.2-2, -3
3.2 Stakeholders are engaged in & informed about utilities operations affecting their community	ST	S,R	S	5	S	R,C,CP	7.2-6
FOCUS AREA - WORKFORCE GOAL 4.0 - Sustain a Capable, Satisfied, Engaged, Ethical & Safe Workforce Focused on Customer Service							
4.1 Leaders invest in employee training & professional development	ST	E	WF	WF	S	WF	7.3-1
4.2 Employees promote a culture of safe & ethical behavior	ST	E	WF	WF	S	WF	7.4-9
4.3 Employees are engaged, satisfied & fairly compensated	LT	E	WF	WF	S	WF	7.3-5
FOCUS AREA - ENVIRONMENTAL SUSTAINABILITY GOAL 5.0 - Achieve Environmental Sustainability							
5.1 ELECTRIC (EP/ED) - Be a carbon neutral electric provider by 2040	LT	S,R	O,S	1,3,5	L	CP	7.4-12
5.2 ELECTRIC/WATER/GAS - Electrical & heating efficiency & water conservation is promoted through a targeted conservation program	ST	S	O,S	2,3	S	CP	7.4-14
5.3 WATER (WD) - Potable water use is reduced by 9% by 2030	LT	A,S	O,S	2	L	LAC,CP	7.4-15
5.4 GAS (GD) - Customer heating efficiency is improved to reduce gas usage by 3% by 2030	LT	A,S	O,S	2	L	CP	7.4-13
5.5 SEWER (WT) - Class 1A effluent water is provided in White Rock	LT	A,S	O	4	S	CP	N/A
FOCUS AREA - PARTNERSHIPS GOAL 6.0 - Develop & Strengthen Partnerships with Stakeholders							
6.1 Communicate with stakeholders to strengthen existing partnerships & identify new potentially beneficial partnering opportunities	ST	S,R	B	1,3,4,5	S	LAC,CP	7.5-13

CC=Core Competency: A=Accountable Management, S=SP for Sustainability, R=Building Customer & Partner Relations, E=Employee Development; SC/SA= Strategic Challenges/Strategic Advantages: B=Business, O=Operations, S=Society, WF=Workforce; SO=Strategic Opportunities 1-5 (Figure 2.1-3); S/L= Short-/ Long-Term; SH=Stakeholder: R=Residential, C=Commercial, L=Large, WF=Workforce, RA=Regulatory Agencies, LAC=County, CP=Community & Pueblos

Figure 2.1-4 ***DPU SP goals are aligned to our stakeholder requirements, core competencies, challenges, advantages and opportunities.***

are studied for impact on operations and potential changes we must or might make. As we begin SPP, we conduct a SWOT evaluation to uncover potential blind spots. From SWOT results, we redefine our strategic challenges (SCs) and strategic advantages (SAs) (**Figure P.2-2**).

Our ability to execute is considered in ❸, as WF and budget place limits on what can be accomplished on an annual basis. Planning tools include electric load forecasts, condition and capacity assessments for each utility and risk of failure and loss guide prioritization. AMTs meet quarterly to evaluate system condition, needs, issues and regulatory considerations and meet annually to review past performance and propose and justify future WF resources and expenditures for O&M and CIP projects.

2.1a4 Work Systems and Core Competencies (CCs) are addressed in SP. Key work processes (KWPs), shown in the center of **Figure P.1-0**, are accomplished by our workforce as we are chartered to do so. Most key processes (reflected in our strategic objectives) that interface with customers are accomplished by the WF. Larger or longer-term CIP projects may be outsourced based on SP prioritization. Work that can be accomplished by a supplier more economically or that requires a CC or certification beyond WF capability is procured following LAC procurement code. DPU maintains a staff of engineers and project managers who manage and execute such contracts.

CCs are reviewed annually during SP ❷ to determine if goals and objectives are aligned to at least one CC (**Figure 2.1-4**). DPU's commitment to maintaining CCs in the future is exemplified in 2013 with the 1600 electric smart meter pilot project. A feasibility study conducted in 2015 explored conversion to advanced metering infrastructure (AMI) providing electric smart meters to the rest of DPU's customers and incorporating digital gas and water reads. We contracted with an outside firm to independently analyze the conversion. The study identified several clear economic benefits. In March 2019, the contract was awarded and is being deployed with a combination of contract work and WF. This important process change in our meter reading operations aligns with our CC of building customer relationships with improved meter reading, billing accuracy and online customer self-service capabilities.

In 2017, SMT determined that no new CCs were required but noted that a future CC of managing distributed generation (DG) may be needed as the industry evolves. If DG develops into a significant product, we would also need to add it as a new work system. These decisions are made ❷ when doing the SWOT and considering SCs, SAs and CCs.

2.1b Strategic Objectives

2.1b1 Key Strategic Objectives DPU's key focus areas, goals, objectives and timetables are shown in **Figure 2.1-4**. Key changes in our products and operations are increasing our clean energy resources to reach carbon neutrality by 2040. At this time, we are not planning any significant customer, market, supplier or partner changes, other than UAMPs (**2.1a2**). The timetable (continuous, short-term or longer-term) for achieving SOs is determined in AP development and is reflected in **Figure 2.1-4**.

2.1b2 Strategic Objective Considerations As part of SP workshop, all goals and objectives are aligned with CCs, SOs, SAs and SCs. The AMTs continuously balance the competing organizational needs of the department by prioritizing short and long term improvements, spending and WF capability. Initiatives are prioritized by considering budget, equipment, WF, risk and stakeholders. Initiatives are planned and executed to align with our CCs and strengths of our WF. SAs and SCs are considered in our execution of SOs to approach any known challenge with appropriate resources and use SAs to achieve efficiencies.

AMTs devise long-term plans to large initiatives that exceed annual budgetary and WF resources. Initiatives providing the most value that address the highest risk to the department are evaluated, planned and executed as short-term initiatives each year. The AMTs evaluate use of internal or external resources to meet SOs. DPU considers needs of key SHs as input ❶ and SHs are a part of the final check when SOs have been determined (**Figure 2.1-4**).

2.2 Strategy Implementation

2.2a Action Plan Development and Deployment

2.2a1 Action Plans (APs) Each goal has one to eight strategic objectives (SOs) (**Figure 2.1-4**). There is a direct relationship between SOs and APs, with each SO having at least one AP that typically sets out one year's actions and outcomes. The UM assigns goals to each deputy that are then included in the respective deputy's PPA for the upcoming year. The deputies develop APs with AMTs and appropriate staff. Key APs are shown in **Figure 2.1-4**.

2.2a2 Action Plan Implementation Deputies deploy APs to WF through the PPA process. Input from the appropriate AMT is also included. Responsibility for completing APs is typically in-house; if a supplier, partner or SH needs to be involved, deployment would occur via a contract or agreement. Key outcomes are sustained through dashboard reviews and SP updates the following year. Some APs roll-over to the following year (i.e. Focus Area 1.0 – Provide safe & reliable utility services is never completed; each year we build upon accomplished APs of the previous year). This ensures that gains are sustained and integrated into daily operations.

2.2a3 Resource Allocation AMTs are foundational to AP deployment and resource allocation. Each of the eight AMTs evaluates work practices and system needs to develop annual O&M and CIP budgets for their utility. AMTs bring together the perspective of superintendents, field workers, engineers and managers. Considering compliance risks, SOs and APs, each AMT presents a proposed O&M and CIP budget for the next fiscal year with an update on potential issues. The AMT Governance team, working with Finance, then finalizes the O&M and CIP budgets for DPU.

The resulting budgets are then analyzed in a ten-year financial forecast model to understand impacts to utility rates, cash

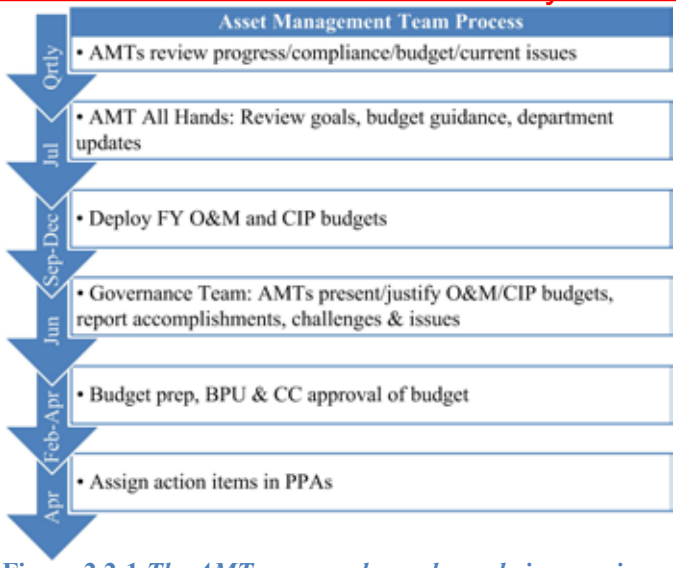


Figure 2.2-1 ***The AMT process plays a key role in ensuring financial and other resources are available to execute action plans.***

reserves, the need to borrow or issue bonds or other impacts to financial viability. Proposed projects and budgets are modified or deferred if the work will cause unfavorable financial results or other risk.

2.2a4 Workforce Plans Key WF plans are developed from the WF focus area (Figure 2.2-2) or from a new capability change required by any other focus area.

Focus Area - Workforce	
Goal 4.0 Sustain a capable, satisfied, engaged, ethical & safe WF focused on customer service	
2019 SOs	**2019 Action Plans**
SO 4.1 – Leaders invest in employee training & professional development	Deploy succession plan (LT) Expand LITMOS (ST)
SO 4.2 – WF promotes a culture of safe & ethical behavior	Incorporate safety & ethics into Monthly Exchanges (ST)
SO 4.3 – WF engaged, satisfied & fairly compensated	Conduct Q12 survey (LT)

Figure 2.2-2 ***DPU considers potential WF impacts during SP and creates APs to most effectively use our WF to execute strategy***

Goal/SO	Key Performance Measures (KPMs)	Current Performance	Trend	Comparative	ST Projection	LT Projection
1.1 Water (WP/NP/DW)	(WD) Water Main Breaks/100 mi. pipeline				7	7
	(NP) Water Main Breaks/100 mi. pipeline				7	7
	(WP) Drinking Water Compliance				100%	100%
1.2 Gas	(GD) PHMSA Reportable Main Pipeline Leaks/ 100 mi. Pipeline				0	0
1.3 Sewer (WC/WT)	(WC) Sewer Overflow Events/100 mi. pipeline				3	3
	(WT) Gallons of Sewage Conveyed & Treated (Million Gallons)				N/A	N/A
1.4 Electric (EP)	(EP) Hydroelectric Equivalent Availability Factor (EAF) by Unit				100%	100%
1.5 Electric (ED)	(ED) Electric System Average Interruption Duration Index (SAIDI)				<1 HR	<1 HR
1.6 Business Systems	Number of Billing Adjustments				0	0
1.7 Utility control & mapping	Total All Damages /1000 Locate Tickets				0	0
1.8 Continuous improvement	WF Survey: Coworkers committed to quality work				4.0	4.0
2.1 Financial excellence	Audits					
2.2 Competitive rates	Comparative rates Electric, Gas, Sewer, Water				N/A	N/A
2.3 Meet financial targets by 2025	Budget per Expenditure – by utility, see note 1				Annual	2025
3.1 Customer	Net Promoter Score Residential				27	27
3.2 Stakeholders	Safe Drinking Water-Consumer Confidence Report				N/A	N/A
4.1 Invest in WF	WF Survey: Last year I had the opportunity to work & grow				4.0	4.0
4.2 Safe/ethical	OSHA Incident Rate				5	5
4.3 WF engagement	WF Survey: Employee Engagement				4.0	4.0
5.1 Carbon neutral	(EP) % Power Derived from Non-Hydrocarbon Sources				8.7%	8.7%
5.2 Conservation	PEEC Total #People Reached by Conservation Program				3500	3500
5.3 Reduce potable water use by 9%	(NP) Gallons per Capita per Day (Non-Potable)				2030	2030
	(WP) Gallons per Capita per Day (Potable)				2030	2030
5.4 GAS - Reduce 3%	(GD) Therms Per Capita per Heating Degree Day				2030	2030
5.5 Sewer	(WT) Replace White Rock WT Plant	RFP	N/A	N/A	2022	2022
6.1 Partnerships	DPU operation is improved by our Partnerships				>75%	>75%
Shading: *Green=Meeting/exceeding, Yellow=Making progress, Red=Action needed*						

Figure 2.2-3 ***Key short- and long-term action plans are directly aligned to our SOs; measures of performance are on the dashboard and are subject to multiple reviews.*** *Note 1: Some variation in performance by individual utility; see Item 7.1 for specific performance.*

2.2a5 Performance Measures Every AP has at least one measure to track progress and effectiveness (Figure 2.2-3). Measures are on the dashboard and are reviewed 4 as described in 4.1a1. Measures for each key work process (KWP) reinforce organizational alignment. The clear line of sight from SOs to key performance measures (KPMs) to dashboards enables us to track, analyze and improve at three levels: enterprise, operational and work unit.

2.2a6 Performance Projections (Figure 2.2-3) are monitored during dashboard reviews. Gaps that can be addressed easily are assigned to a manager; longer-term or complex issues are addressed as an AP modification or new SOs.

2.2b Action Plan Modification We recognize when a shift is required through dashboard review or local events requiring immediate agility. There have been five major natural disasters (flooding/forest fires) in the last 12 years that have caused significant infrastructure damage and disruption to DPU operations. Smaller-scale fires, floods, ice, rodent damage, etc. also require us to shift resources to address a new, higher priority issue. Major shifts in priorities are then readdressed in the 10-year financial plan to cover costs of severe AP modifications.

3: Customers

3.1 Customer Expectations The directive from the elected Los Alamos County (LAC) Council and Board of Public Utilities (BPU) (citizens appointed by Council) is to achieve a high level of customer satisfaction with reliable utility services and spend rate-generated revenues effectively to meet the level of service the community wants.

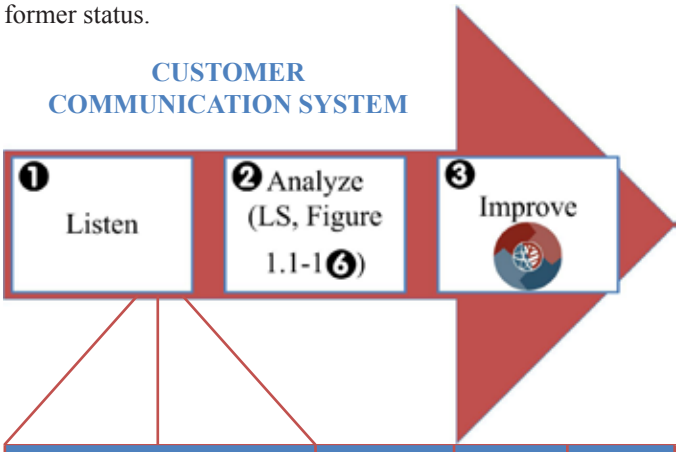
Year	Cycles of Learning 3
2011	Social Media
2014	Ad-hoc FER committee
2015	Added NPS and value to survey
2015	Survey includes improved segmentation
2016	Smart mobile app
2017	Improved power outage survey data

Figure 3.1-1 ***Continuously improving 3 the ways we listen to customers has been the foundation of the strong relationships we enjoy today.***

3.1a Customer Listening

3.1a1 Current Customers DPU has a strong core competency (CC) of focus on customers by building customer and partner relationships (Figure P.1-2). Two other CCs—accountable management and sustainability—are also derivatives of current customer expectations. Strategic planning (SP) and our performance improvement system (Figure P.2-3) have led to significant changes in the way we listen to customers and exceed expectations through innovative products and services in what is typically a staid sector (Figure 3.1-1). It is largely through listening that we have been able to identify and address key business, operational and societal challenges (Figure P.2-2). For example, improvements in the way we deploy social media (SM) and the smart mobile app contribute to maintaining our reputation with good customer service, a key strategic challenge. Among many listening improvements is the new DPU web page in March 2017. Using our PDSA improvement model, we analyzed past hit counts and visitor patterns to determine which pages customers were visiting the most and changed our sites to make that content quickly accessible to the largest audience.

DPU values customers and partnerships so listening 1 to the voice of the customer (VOC) is essential (Figure 3.1-2). We vary the frequency and type of listening methods as shown. Other than going "off the grid" DPU customers have no other utility options. Nevertheless we include former and potential customers in several of our listening processes. These processes span the customer life cycle; from potential, through hook-up, full service, termination and eventually former status.



L=Listening /I=Interacting/ O=Observing Process	Frequency	Customer Lifecycle	Data Type
L Customer survey	Biennial	RC	PR, CS
LIO Field Crews	Transactional	RC	T
L Key Acct mtgs	Biennial	CL	PR, CS
L Natural Gas survey	Triennial	RC	PR, CS
LIO Public meetings	As needed	RCL	PR, CS, T
LO BPU Meetings (public comments)	Monthly	RC	PR, CS
I ECA/LANL meetings	As needed	L	PR
LIO Social media	Daily	RCLF	PR, CS, T
LI Smart mobile app	Daily	RCFP	PR, CS, T
LI Email	Daily	RCLFP	PR, CS, T
LIO CCC	Daily	RCLFP	PR, CS, T
LIO Employee volunteers	As occurs	RCLFPU	PR, CS, T
LI Citizen ad hoc committees	As needed	RCLFP	PR, CS
LI ECA Operation Cmte meeting	Monthly	L	PR, CS, T
LI LACED	As needed	CP	PR
I UM radio show	Monthly	All	PR, CS
LI media meetings	Biweekly	RCL	PR, CS

R=Resident, C=Commercial, L=Large, F=Former, P=Potential, U=Competitor Utility; PR=Product, CS=Customer Support, T=Transactions

Figure 3.1-2 ***We use a variety of methods to listen to different customers and across customer life cycles.***

We analyze ❷ customer data in a variety of ways, incorporating data into our dashboard reviews and SP input. One of our key listening processes is the biennial customer survey next scheduled for this summer. The survey segments responses by customer group (residential or commercial); location (Los Alamos/White Rock) and other demographics. This allows DPU to focus on where dissatisfaction occurs. In 2015, DPU included a Net Promoter Score (NPS) question to measure customer engagement (**Figure 3.2-5**).

Based on the first NPS analysis ❷, residential detractors were a younger demographic (aged 18-45), while the older demographic base (55 and older) were promoters. Using PDSA, DPU examined detractor data and found that their reasons for not recommending DPU included value, billing issues, credit card fees, outages/outage notification and website/online services. It appeared that the younger demographic desired more online control and information. This drove DPU to implement many specific improvements ❸ in the last two years, including updating web page design and layout and offering a smart mobile app allowing customers to access accounts, view usage and past bills and make payments online.

Fortunately, utility interruptions are greatly reduced due to the Electric Reliability Plan implemented in 2010 and continually updated. In the 2017 biennial survey, the question regarding outages was modified to determine how many customers actually had an outage, which revealed that reliability is so high it is now taken for granted.

Because we are a relatively isolated, small community, our employees listen to ❶ and communicate with customers as they attend sporting events, shop, volunteer and live in Los Alamos and White Rock. We learn community concerns through social media, reading letters to the editor, local blogs, listening at Council and BPU meetings and through interactions with the public at community events such as Kiwanis, Rotary Club, League of Women Voters and Sierra Club.

The most effective, impactful and actionable feedback we received has been from citizen ad-hoc committees. The Future Energy Resources (FER) committee, for example, represents a cross section of the community (business, residential, DG/non-DG, LANL, male/female, Republicans/Democrats). We asked this committee to study and make recommendations of how to proceed at a critical juncture with industry changes in electric production and future energy resources. By being inclusive and transparent, the process provided credibility to final recommendations for a path forward and less resistance from the community and BPU. Most recommendations were adopted. These recommendations are still an input to SPP and budgeting and DPU reports progress quarterly.

3.1a2 Potential Customers Processes to obtain actionable feedback for former (F), potential (P) and competitor utility (U) customer listening are highlighted in **Figure 3.1-2**. Much actionable information comes from partnering with LAC Economic Development (LACED) to identify what infrastructure new developers for housing or businesses might need. One of our employees, sits on a citizen committee to improve tourism and business (potential new customers). Our chief engineer partners with LACED for new affordable housing slated for development. Construction on a first project is currently underway in White Rock, a second project will begin in Spring 2019 and a third is under development. The local ski hill doesn't have adequate water to support development and snow making. If approved, DPU will oversee the construction of a new water delivery system and acquire another large water customer, ski tourism will increase (more utility use) and fire protection will be enhanced through new infrastructure.

3.1b Customer Segmentation and Product Offerings

3.1b1 Customer Segmentation DPU determines customer groups and market segments using industry standards of residential and commercial. We use customer data to anticipate changing product and service requirements such as use of NPS data to enhance website and SM access. We use customer data to anticipate future groups and segments' needs based on differing expectations for different demographics. Commercial customers are the key group to emphasize and pursue for business growth for several reasons. Commercial customers generate higher revenue and new or enhanced businesses may also mean new residents.

3.1b2 Product Offerings While product offerings are dictated by Charter, DPU continuously strives to improve sourcing (i.e. solar vs. coal) and delivery, (i.e., electric vehicle (EV) stations). We determine customer needs through listening (**Figure 3.1-2**), which provides input into SP (**Figure 2.1-1**). A key listening process for citizen input is through citizen committees, e.g. FER. Originally, FER provided a detailed analysis and review of requirements and provided specific input for how to best set a direction for carbon neutrality. The 2017 customer survey found overwhelming support (73% residential; 60% commercial) for the FER recommendation to pursue nuclear generation. This one-time event has evolved into a continuous process to determine changing customer needs and new markets and to create opportunities to expand relationships with current customers.

DPU identifies and adapts product offerings to exceed customer expectations through research, study and testing. For example, we partnered with Kyoto University, Japan, to conduct "dynamic pricing" research on residential customers. For this project, DPU installed 1600 smart electric meters in two neighborhoods. The research used virtual pricing and provided actual cash payouts to influence customers to shift electric usage to less expensive times of the day and avoid more expensive peak demand times of the day. No actual rates were adjusted; customers' actual bills were not impacted. The research results demonstrated that we will be able to move to dynamic pricing to manage electric load. By making it voluntary, we are expanding relationships ❸ with customers who are committed to the program.

Year	Customer Cycles of Learning
2014	FER citizen committee
2015	Added NPS engagement to survey
2016	Smart mobile app
2017	Improved power outage survey data
2019	Align survey to benchmark sources

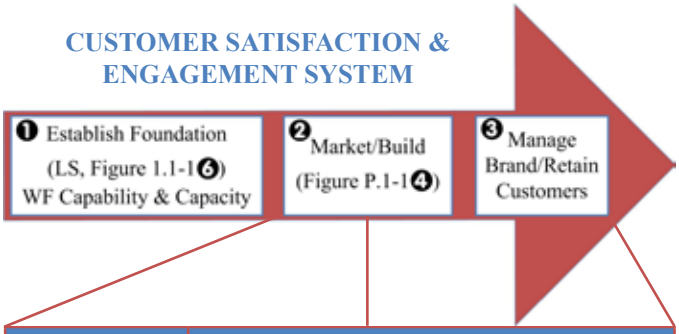
Figure 3.2-1 ***1 Learning cycles for customer engagement build long-lasting customer relationships.***

3.2 Customer Engagement

3.2a Customer Relationships and Support

3.2a1 Relationship Management Even though DPU does not compete with other utility providers for new customers or market share, we recognize the importance of building and maintaining strong relationships with our customer base through the entire customer life cycle. DPU's governance structure (**Figure 1.2-2**) is centered on local control, with county council ❶ comprised of customers and elected by customers, appointing customers to BPU ❷. As a result, DPU reports to and is accountable to its customers which places strong emphasis on customers. We are entrusted by LAC and its citizens to operate their DPU. As such, we believe that to build strong relationships we must be transparent, efficient and reliable with excellent customer support to meet the customers' needs for how they do business with us.

We acquire and build ❷ market share by partnering with LAC/LACED to provide infrastructure for new commercial and residential development (**3.1a2**). We enhance our brand image ❸ by listening to and incorporating VOC in our operations. We are their utility after all – and we aim to be an organization that the customer and community are proud of. Our brand is enhanced through the citizen ad-hoc process, such as FER, that results in their values being integrated into SP. An example is the goal to be carbon neutral by 2040, an objective more progressive than the Paris Agreement of 2015 to combat climate change.



Build & Manage	Approaches
Be Transparent	Publish quarterly & annual reports on the operation of the DPU (financials, project and division updates) Condition assessment to BPU
Be Efficient	Good stewards of all assets & revenues via AMTs, budgets, audits
Be Reliable	Dashboard reviews monitor reliability of all services
Be Excellent	Knowledgeable, courteous, handle the request, customers is satisfied with service

Figure 3.2-2 ***We build and manage relationships through trust, efficiency, reliability and excellence.***

We retain ❸ customers by meeting their requirements. We measure knowledge, courtesy, ability to handle a request and satisfaction when customers interact with us. We know that if we are doing our job, utilities are invisible. Customers should never wonder if a) lights will turn on when they flip a switch; b) water coming from the tap is safe to drink; c) their house will be kept warm in the winter and d) wastewater going down the drain and leaving their homes will be safely collected and treated to protect the environment. These are basic expectations that we meet daily. We exceed expectations through innovative sourcing, production and delivery, such as reducing our reliance on coal-based electricity and the inception of smart meters and online capabilities for the convenience of customers.

Attending to customer life cycle with a stable residential and commercial base means supporting all demographic segments. The 2018 US Census estimates that 38% of our customers are 55 or older. This is the segment that responds to landline phone surveys, skewing results. We falsly believed that all customers were greatly satisfied with paper bills and sending payments by US mail. After changing the outreach to include email and text messages, younger customers responded. Results were segregated and we saw some services were less satisfactory for a portion of customers. In response, DPU launched a smart mobile app for customers to conduct business with us online.

3.2a2 Customer Access and Support DPU enables customers to seek information and support in a variety of ways based on feedback from older and younger residential and commercial customers. For the 1600 smart meter customers, online access allows them to view consumption patterns in 15-minute increments, compare consumption with neighbors and even set up alerts when consumption goes above or below their target threshold. Knowing electricity consumption allows customers to better budget for upcoming bills. DPU is now expanding this service to the rest of its customers and incorporating gas and water consumption through the AMI project.

A key DPU component of information and support is the Customer Care Center (CCC), staffed Monday through Friday from 8 a.m. to 4 p.m. for personalized support for walk-in customers, phone calls, and email traffic for not only all utility business, but also county business. The CCC is located at the Municipal Building in downtown LA. Service windows in the central lobby provide easy access to customers and citizens. Through the smart mobile app, customers can also ask questions and request information. Three DPU staff members monitor the messaging portal and respond to incoming messages within one business day.

When customers experience a natural gas, water or sewer emergency, they are connected immediately with standby crews available 24/7 and there is no charge incurred to respond and render the situation safe. Customers may also

Key Support & Communication Methods	Res	Comm	Partner SH
Conduct Business			
CCC (in person/phone/email)	√	√	√
Smart mobile app	√	√	
Contract/ECA			√
Smart meters	√		
Seek Info & Support			
CCC (in person/phone/email)	√	√	√
Smart mobile app	√	√	
Website	√	√	√
Social media	√	√	
Communicate			
CCC (in person/phone/email)	√	√	
Bill/newspaper inserts; direct mail, flyers, posters, door hangers, letters	√	√	
Social media	√	√	
Smart mobile app	√		
Key Accounts meetings		√	√
See Figure 3.1-2	√	√	√

Figure 3.2-3 ***Access and support are assured for all customer segments.***

seek information through the website. DPU recently migrated to a new website to be more customer friendly. Using website analytics, DPU was able to determine pages that were visited more often and information that was downloaded most by differing customer segments. Information available includes utility rates, bill inserts, quarterly and annual reports, information on each utility, staff, phone numbers, permitting information, codes and standards, rules and regulations. BPU agendas, minutes and video of meetings are also available on the website.

Social media is another means to support customers seeking information. DPU's Facebook page has a following of 700+ members; outreach is maximized by sharing this page to other community pages. Important information can be pushed this way, reaching thousands of younger customers and families.

Examples of targeted communication may include door hangers or letters to those adjacent to CIP projects or customers whose utilities will be interrupted during infrastructure upgrade or maintenance. A reminder robocall is made the day before project starts.

Recently, DPU implemented a new enterprise resource planning (ERP) software system. Advance information was made available to all customers through bill inserts, press releases, advertisements, social media and radio interviews. DPU invited landlords to a drop-in luncheon to learn about the changes, what to expect and to address the individual concerns or questions one-on-one.

DPU has communicated important information that is targeted to the business community through the Chamber of Commerce. In 2017, DPU needed to close a state road for a period of 24 hours, impacting traffic to White Rock (WR). After meeting with various stakeholders (SH), LAC, LAPS, LANL, Bandelier, Police and Fire to select a date that minimized the impact for most SH, the Chamber was able to notify all WR businesses. DPU followed up with one-on-one meetings with larger businesses. Customer requirements (**Figure P.1-6**) are determined through our LIO processes described in **Figure 3.1-2** and are deployed to CCC and field crews via MVV, SL communication (**Figure 1.1-5**), standard operating procedures (SOPs) and PPAs.

3.2a3 Complaint Management DPU does not have a formal policy/procedure for handling complaints. However, all DPU staff attended a customer service class hosted by LAC. In addition, the DPU Code of Ethics provides WF guidance on handling complaints in the areas of Trustworthy, Communicative and Fair (**Figure 3.2-4**). For managing complaints, these three enable us to recover customer confidence and enhance satisfaction and engagement.

Approach to Complaints
❶ Trustworthy: By giving correct and up to date information, we recover confidence. As part of the transition to MUNIS (ERP), we have had numerous systems errors in billing. We have proactively contacted customers before they receive their inaccurate bills, which shows them that we are on top of the issue and it is not up to them to detect or correct the error.
❻ Communicative: Complaint management is all about listening. The code reminds us to be "approachable, open-minded and willing to dialog," and includes "keeping customers informed" if immediate resolution is not possible.
❿ Fair: Fixing the customer issue is only part of complaint resolution. Courtesy and respect are fundamental to enhancing satisfaction and engagement and is inherent in problem resolution.
Step numbers refer to Figure 1.2-5, DPU Code of Ethics

Figure 3.2-4 ***Complaints are handled in harmony with our Code of Ethics, Figure 1.2-5.***

Field and CCC staff are empowered to handle complaints promptly as they are encountered. CCC may waive a late fee or adjust a payment plan. Most complaints are handled and resolved in this fashion which recovers customer confidence in DPU. If customers are still unsatisfied, the complaint is elevated to supervisors or senior leaders (SL). Receipt of complaint is acknowledged within 24 hours. Most complaints are effectively resolved in a few days. If longer, we follow up with the customer to advise them of when to expect resolution. Complaints and resolutions are shared with other DPU staff who can also learn from the incident.

3.2b Determination of Customer Satisfaction and Engagement

3.2b1 Satisfaction, Dissatisfaction and Engagement DPU's primary method of determining customers' satisfaction and dissatisfaction is through the biennial customer survey with supplemental feedback coming from other sources such as communications through the CCC and field crews (FCs), emails, phone calls, social media and public meetings. Engagement is determined through NPS (**Figure 3.2-5**), which scores "likely to recommend" on a 0-10 point scale. The biennial survey uses four methods to engage different customer groups: phone calls, emails, SMS (text messages) and in-person interviews. Results are segmented by

commercial and residential; residential is further segmented by age, location and households with/without children. The Utilities Manager meets with large customers in person (key account meetings) to: understand what DPU is doing right and what could c better; ask if we are meeting the customers present and future needs and test future products (EV stations, community solar gardens). Results from surveys, feedback from key account meetings and other sources are collected and discussed through SPP. Feedback is examined and weighed against other SOs, long-term goals, available resources, revenues and alignment with MVV. If appropriate, actionable information is then folded into the SPP (**Figure 2.1-1**).

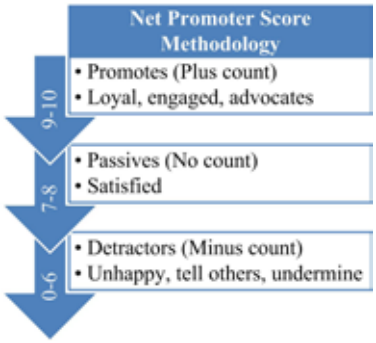


Figure 3.2-5 ***Improving the quality of survey feedback provided compelling data for action.*** *More information on NPS methodology and extensive segmentation data is AOS.*

3.2b2 Satisfaction Relative to Other Organizations DPU has set a customer satisfaction goal to achieve a mean score of 3.5 (above good) on a 4-point scale (1=poor, 2=fair, 3=good, 4=excellent). DPU also set a goal to achieve an NPS engagement score that is better than the industry standard which changes from year to year. In order to determine satisfaction relative to competitors, customers of other organizations and industry benchmarks, DPU compares commercial and residential NPS with utility industry scores through the Tempkin Group. In 2017, DPU's NPS score for commercial customers was +34.7 which was better than the industry average. On the other hand, the residential score was +11.2, less than the industry standard. Using promoter/ passive/detractor and 'heat map' analysis (AOS), we are able to determine where we need to focus improvements.

3.2c Use of Voice of Customer (VOC) and Market Data DPU uses VOC such as citizen committees and market data as an integral part of SPP. SLs evaluate how VOC and market data aligns with MVV, other SOs and long-term goals to arrive at various initiatives. The SPP also weighs resources and available revenues with the benefits to then prioritize such initiatives, which ultimately changes products, services and delivery mechanisms. Our SP carbon neutrality goal that came directly from residential/ commercial/LANL VOC through FER is an example. We continue to replicate the FER success story to build a more customer-focused culture. In addition, our governing bodies (**Figure 1.2-2**) are entirely comprised of customers so their leadership and guidance are informed by VOC as well.

VOC supports operational decision making as we undertake repair and replacement projects. Whenever we plan a significant utility interruption, road closure, etc., we personally contact affected customers and seek their input to plan logistics of the work to minimize disruption. For operations with lower impact, we may use door hangers and robocalls to alert customers to utility interruptions.

4: Measurement, Analysis and Knowledge Management

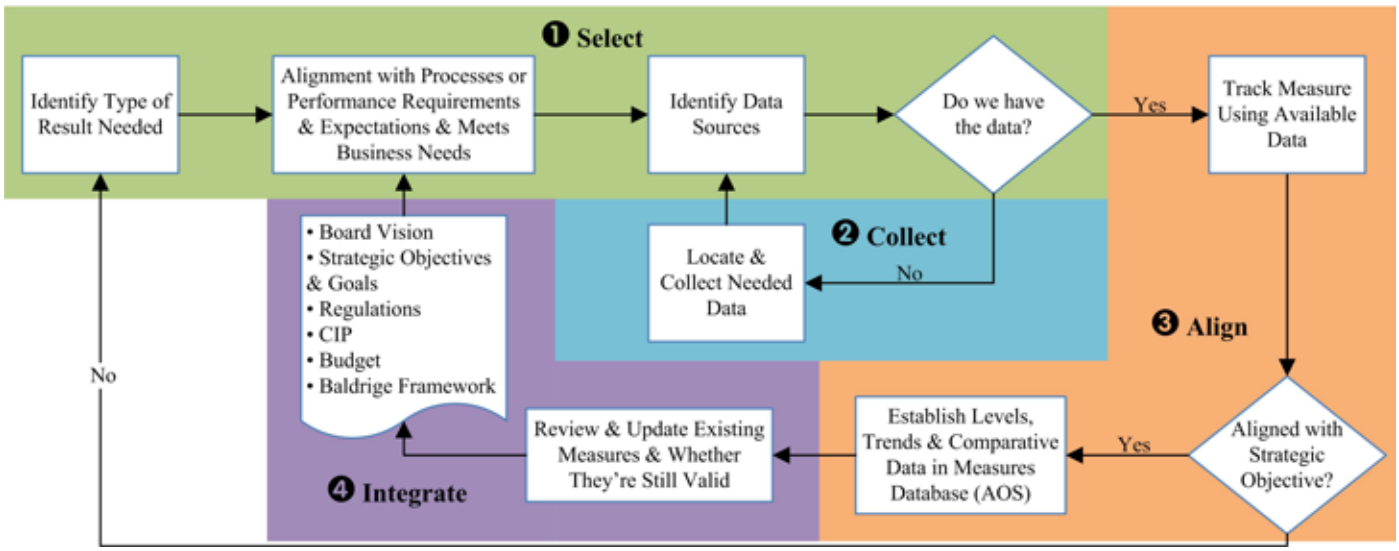


Figure 4.1-1 ***Our Performance Measurement Selection System provides alignment and integration to SOs while ensuring we achieve appropriate regulatory and budgetary results.***

4.1 Measurement, Analysis and Improvement of Organizational Performance

4.1a Performance Measurement

4.1a1 Performance Measures We select, collect, align and integrate data and information to use in tracking daily operations and overall organizational performance using the performance measurement selection system in **Figure 4.1-1**. This system provides the approach to select the appropriate measures by utility group and support areas. We select the type of measure needed based on efficiency, effectiveness and quality, then align with our business needs ❶.

Year	Cycles of Learning
2013	Began divisional dashboards for all utilities
2014/ 2019	5-year Mgt. audit based on Baldrige framework (QNM Application)
2016	Added benchmarking to divisional dashboards
2017	MUNIS (ERP)
2018	Condition assessment to BPU (1 system/quarter)
2019	Use of Baldrige Award Recipient (BAR) data for benchmarking in dashboards

Figure 4.1-0 ***Learning initiatives are fully integrated with our Baldrige approach to leadership, performance and planning.***

Selection is based on use and intent of the reporting for three key purposes: 1) Informational for the Board of Public Utilities (BPU), Council and the public; 2) Budgetary for staff and development of annual budgets, cost control and rate structure; and 3) Operational for staff in tracking performance, response to changed conditions, problem detection, operations realignment or reprioritization.

Data sources are identified in MUNIS (ERP tracking system and financial application). In 2017 this new system was installed based upon a LAC decision to upgrade technology and improve applications. We used the PDSA system to integrate the new MUNIS functionality into DPU processes with the goal of increased accessibility of data for users. We are testing a secondary performance tracking tool, Clear Point System (CPS), recommended by the City of Ft. Collins, a 2017 Baldrige winner. We are integrating CPS across all utilities. CPS uses dashboard data and graphs and integrates that data with SP objectives and goals (**Figure 2.1-4**). This provides a system that delivers information on organizational performance.

When data is available, it is collected ❷ from various internal department sources that have been developed over the years. These include consumption reports; actual to budget monthly reports; annual utility reports; financial fundflo reports; DOT/ PHMSA (gas system regulatory reporting) reports; NMED & EPA permit reports (WT & NP reuse); NM Office of the State Engineer (NMOSE) WP reports; utility locate report and informal record keeping by supervisory staff. If data is not readily available, we locate and collect it along with data that we have.

We align data with each operational unit by utility group ❸ and integrate with the six SOs from **Figure 2.1-4** (Operations and Performance, Financial Performance, Customer and Community, Workforce, Environmental Sustainability and Partnerships) in ❹. With our various internal department reports being the fundamental source, our dashboards are the tools used for aggregating information for other reporting such as quarterly and annual reports to the BPU and Council and Asset Management Team (AMT) annual governance meeting presentations (preparatory to annual budget development).

Dashboard data is aligned in two ways. First for operational data by utility: Electric Production (EP), Electric Distribution (ED), Gas Distribution (GD), Water Production (WP), Non-Potable System (NP), Water Distribution (WD), Wastewater Collection (WC) and Wastewater Treatment (WT). We also have administrative data by department as appropriate for Finance and Administration (F&A), Engineering (ENG), GWS Admin (GWS) and Public Relations (PR). Some approaches for the design of the dashboards vary by department as appropriate (required) to meet the needs of the users of the data. Dashboards are deployed and integrated through segregation and storage in separate folders on network drives for easy access for the workforce to assess overall organizational performance. Key organizational measures, including financial, are shown in **Figures 6.1-2** and **6.1-3**.

Performance levels are established with appropriate comparative data determined in the comparative data and selection system (**Figure 4.1-2**). Performance against SOs and APs is tracked using approaches in **Figure 4.1-3** along with key performance measures (KPMs). APs are reviewed with the Utilities Manager (UM) monthly to assess progress and potential adjustments.

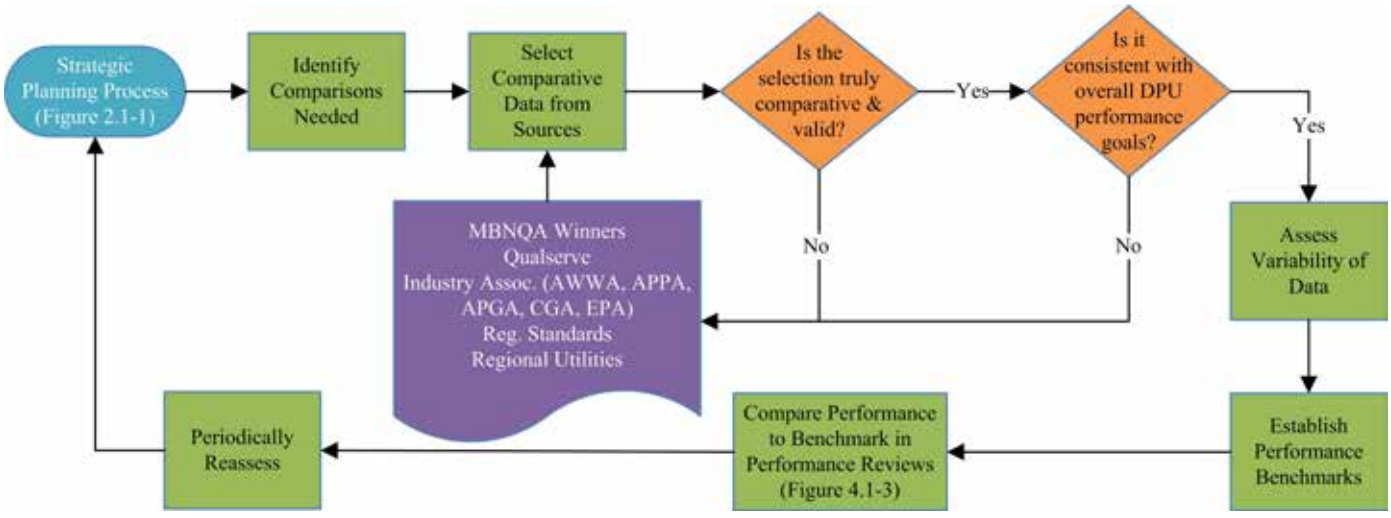


Figure 4.1-2 ***Our Comparative Data Selection and Use system provides us valid comparisons to assist in our assessment of our relative performance to our SOs.***

4.1a2 Comparative Data To make fact-based decisions, comparative data are provided in the DPU's quarterly reports and used in performance reviews (Figure 4.1-3) as appropriate. Comparative data and information are selected from a variety of external sources including neighboring utilities, the Government Finance Officers Association (GFOA) and trade organizations such as the American Public Power Association (APPA), the American Water Works Association (AWWA) and the American Public Gas Association (APGA) using the approach in Figure 4.1-2. Internal data is developed through detailed discussion and teamwork and is selected to be relevant to the individual utility (Electric, Gas, Water, Wastewater) necessary to serve the local population where there may not be an external benchmark or comparison.

Selection of comparative data must take into account many factors. DPU is a small utility with 9,662 customers and does not have the economies of scale benefits of utilities in larger cities. The terrain and geography in Los Alamos, which is spread across four finger mesas, and with DOE and Pueblo lands separating one part of town by 10 miles, requires more infrastructure which results in higher per unit operating costs than a city like Santa Fe. Our sewer system has two wastewater treatment plants and 27 lift stations to serve about 18,000 people, while Santa Fe sewer system has one treatment plant and 4 lift stations for 83,000 residents. Care must be taken when choosing comparative measures to consider these relative differences. Effective use of comparative data is reviewed in SPP and dashboard measures. Rate comparisons are chosen to be most representative of neighboring communities which can be an average blended value of our neighboring communities. Comparative data for the customer survey is not available based upon our vendor's capability. We are in the process of determining the most appropriate sources and measures in FY 2020.

Performance Analysis & Use		Who								
Frequency/What		SMT	MM	NMS	ENG	F&A	PR	CC	AMT	B&C
Daily	Safety (Job Tail-Gate)		√	√						
	Voice of the Customer	√	√	√	√	√	√	√		
	Operational Performance	√	√			√				
	Social Media/News/Posts						√			√
	Lab Sample Results		√	√						
Weekly	Safety (OSHA Report)	√	√							√
	Voice of the Customer	√	√	√	√	√	√	√		
	Lab Sample Results	√	√	√	√					
	Monthly Consumption Reports	√	√		√	√				
	Operations Status Reports	√	√	√	√	√				√
	Financial Reports	√	√	√	√	√				√
	Utility Dashboards	√	√			√	√			
Quarterly	Safety Committee Meeting	√	√	√	√					
	Financial Meetings	√	√		√	√				
	Quarterly Performance Report	√	√			√	√		√	√
	System Condition Assessment to BPU (1 Sys/ Qtr)	√		√		√			√	√
	Asset Management Team	√	√		√	√			√	
Annually	Safety (OSHA Report)	√	√							√
	SPP	√	√							√
	Financial Statements	√	√			√				√
	AMT Governance Meeting	√	√	√	√	√			√	
	Annual Performance Report	√	√				√			√
	Benchmark Updates	√	√	√	√	√	√	√	√	√
	All-Hands Meeting	√	√	√	√	√	√	√	√	√
	Drinking Water Report	√	√	√			√	√	√	√
	Annual Gas & Public Awareness	√	√				√			
	Annual Gas DOT Report	√	√		√		√		√	
Biennially	Employee Satisfaction Survey	√	√	√	√	√	√	√	√	√
	Supplier, Contractor & Collaborator Survey	√			√	√	√			
	Customer Satisfaction Survey	√	√				√			√

MM=Middle Management, NMS=Non-Management Staff, ENG=Engineering, F&A = Finance & Administration, PR = Public Relations, CC = Customer Care Center, B&C = Board & Council

Figure 4.1-3 ***Our Performance Analysis System provides us the ability to review our performance and make needed changes to meet our stakeholder needs.***

4.1a3 Measurement Agility We ensure that our performance measurement system can respond to rapid or unexpected organizational or external changes by reviewing key performance measures for relevance annually as part of the SPP and budgeting process. Dashboard measures are also reviewed during SPP and, as necessary, the relevance of dashboard measures is considered during monthly discussions between the UM and Deputies. New measures may be developed in response to BPU, Council or operational concerns. Issues, concerns, and regulatory changes that arise are identified in weekly/monthly department staff meetings and are elevated to UM in monthly progress meetings held with each Deputy as appropriate. If needed, an action plan is developed and deployed to appropriate staff or AMT. Necessary resource allocation decisions are recommended by AMTs.

4.1b Performance Analysis and Review We review our organizational performance and capabilities using the methods indicated in Figure 4.1-3. Approaches used in reviewing organizational performance and capabilities are monthly consumption reports, monthly operations and financial status reports, job costing reports,

dashboards, quarterly and annual reports. Master plans, Electric Reliability Plan and the five-year management audits are published per DPU's charter requirements. Development (approach) and deployment of these plans/reports have evolved and improved over the last several years. As internal processes and procedures are found that need improvement, DPU forms interdisciplinary teams to review and evaluate procedures for improved efficiencies. PDSA is used, as appropriate, based upon the complexity of the improvement. Action items are assigned and tracked by SMT. The Performance Planning and Appraisal (PPA) process is used to track that staff incorporates and deploys key process changes.

We analyze performance to support these reviews by identifying current performance levels and recognizing trends of KPMs identified in **Item 6.1** (Are we improving, staying the same or getting worse?). We compare performance to goals and benchmarks. We integrate results into our decision-making process to ensure conclusions are valid.

Organizational success is determined based on how well DPU performs compared to other utilities across the country through national standard comparisons. Competitive success is assessed based on comparison of rate and budget growth of DPU utilities compared to other utilities across the country through national standard comparisons and compared to other New Mexico utilities through regional rate comparisons.

Financial health shorter-term (ST) (10-year) financial models have been developed for all utilities. These models include projected rates, rate adjustments, cash reserves by category and, of course, projected sales, expenses and revenues. Longer-term (LT) (20-year) financial models have also been developed for two utilities (WD & WT). LT financial models include the same data sets as ST models; however, they include graphical representations of revenues, expenses and a comparison between the projected and expected cash balance reserves by the financial goals developed by BPU. A cross-divisional team is being established to integrate a single set of models available to all users.

Our Performance Analysis system is comprehensive and integrated to SOs and goals and is deployed to all stakeholders (SH). SHs can assess where we are and what we need to do to learn and improve organizational success. Analysis performed to support these reviews include capacity and condition assessments which are comprehensive evaluations of electric, gas, water, and wastewater infrastructure. These assessments are reviewed and updated as part of the AMT process (**Figure 2.2-1**) which continues to be developed and has been through multiple cycles of improvement (**Figure 2.2-1**). The goal of AMT is to help achieve SOs and provide utilities at a competitive cost. One area of asset management is ensuring adequate maintenance is performed to preserve, protect and prolong life of the utility's infrastructure. In the past, asset management was not consistent across divisions and typically relied on third-party reports such as system-wide condition analysis. Performing assessments in-house gives our operations personnel the knowledge they need to perform work or propose CIP projects.

We compare levels and trends using year over year data and multiple year trends for KPMs. KPMs are discussed in detail with BPU and Council. All KPMs are discussed quarterly with AMTs and annually for the governance meeting during budget preparation. Reviews and analysis are integrated with the six SOs and APs from our SP. Reviews of operational performance, the voice of the customer and social media provide us the ability to respond rapidly to changing organizational needs and challenges.

BPU reviews organizational performance in a quarterly Condition Assessment. We present our progress meeting the SOs and APs and other performance as requested. Key items reviewed at every board meeting are Electrical Reliability (SAIDI), Outstanding Receivables and OSHA incident reports. Detailed discussions include continued relevance of data to the mission of the individual utility. Financial data is compared to condition data to verify if the assumptions made regarding condition improvement for the financial expenditures are meeting expectations. These analyses are being built into the ongoing Geographical Information System (GIS) upgrade project reporting programming by including reporting on both financial net present worth, condition (physical and capacity) and age that also include an element of risk (or critical infrastructure) assessment.

4.1c Performance Improvement

4.1c1 Future Performance We project future performance through AMTs and the 10-year financial plan. Findings are compared to the performance goals and benchmarks established in the SP. When forecasted results differ from the SOs and action plans, we evaluate what improvements may be necessary to reconcile the variance and improve future performance. Projections are adjusted as appropriate. For example, as gas sales trended downward, sales projections have been adjusted downward. Future budget sales projections may again be revised based on data analysis.

Comparative and competitive data are used in our annual budget projections. We review projected budget versus actual sales volumes. For example, water sales volumes were overly optimistic in the early 2000s and as such, so were revenue projections. CIP expenses were planned based on the projected (optimistic) revenue and led to deficit spending and depletion of cash reserves. Including sales volumes in KPMs provided visual analysis that highlighted the need to revise water sales projections downward which has helped to stabilize the water fund cash balance reserves.

4.1c2 Continuous Improvement and Innovation We use findings from the performance reviews in **Figure 4.1-3** to communicate to our work groups how we are performing. Any gaps identified are a catalyst to define priorities for business process improvements and provide opportunities for innovation. The innovation inventory (**Figure 7.1-25a**) records our innovation through time. When a gap from operational performance reviews is identified, we ask work groups and functional levels to provide ideas to improve performance using PDSA. DPU employees are empowered to directly resolve customer concerns.

A cross functional, interdepartmental team innovation occurred in WD. Water breaks per 100 miles were above the national standard. The Fire Department (FD) was unintentionally over-stressing fire hydrants and breaking water lines. UM and the FD Chief met to develop a plan to overcome this problem. DPU now teams up with FD personnel to perform fire hydrant checks. DPU operates the valves while FD does hydrant flow tests. Water breaks per 100 miles have decreased significantly (Figure 7.1-8).

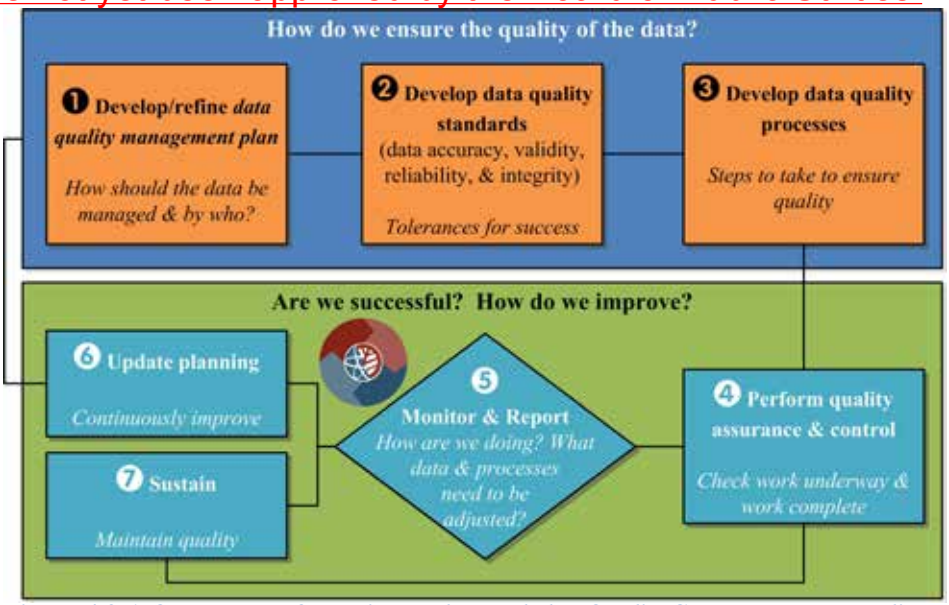


Figure 4.2-1 ***Our Data, Information and Knowledge Quality System ensures quality of organizational data and information we use to meet strategic objectives and goals.***

Our UM's vision of innovation is included in our SPP and was the focus of 2018 planning. The Innovation system is shown in Figure 6.1-5. That vision is focused on improving data reporting and accuracy and pushing the organization into innovative solutions to improve overall performance and create new value for customers and stakeholders. Implementation of AMI to provide meaningful change to the meter reading process is an example of innovation. This approach will meet one of our customer key requirements of accurate billing. With the AMI installation electricity, gas and water use can be transmitted electronically. This will also improve our ability to get access to data, be more accurate and provide better and more timely information to support operational performance, as well as identify water leaks and power outages sooner.

Deployment of priorities to suppliers, partners and collaborators is individualized based on the particular relationship between the supplier/partner/collaborator and the DPU utility or division relying on the relationship. We recognize and emphasize these relationships, knowing they lead to improved efficiency and effectiveness in our SPP.

4.2 Information and Knowledge Management

Year	Cycles of Learning
2008	Baldrige Journey Began
2015	Policy & Procedures Group Implemented
2015/2018	GIS Program Upgrades
2017	MUNIS
2019	Organizational Learning System created

Figure 4.2-0 ***Cycles of learning to collect, analyze and transfer knowledge***

4.2a Data and Information

4.2a1 Quality To verify and ensure the quality of organizational data and information, DPU safeguards and improves the value of data, information, and knowledge (collectively "data") through use of a Data Quality Management Program, in Figure 4.2-1.

We work collaboratively to document key data quality requirements for a particular data set ❶, including; key data components, criticality, accuracy, validity and impact of data on our operations. This step also examines: level of granularity that we should address, how data errors are categorized, business rules and processes that measure data errors and iterative reporting processes on data quality. We compile data quality requirements ❷. We also ensure quality of organizational data and the information ensures accuracy, validity, reliability and integrity through compliance with standards, field verification and a series of manual and automated quality checks. Electronic and other data and information are managed to ensure accuracy, validity, integrity, reliability and timeliness by DPU and the entire County. The recent transition of the ERP software from Cayenta to MUNIS was a mandated change that will provide for a more robust approach to management of this organizational knowledge. Financial information is audited annually through a county-wide process to ensure accuracy. Any revisions that occur during these audits are transferred to the retired FY dashboards that link to the dashboards that are used to develop KPM graphs used for reporting and analysis. All data, MUNIS & GIS, is backed up daily by LAC Information Management (IM or IT) to ensure availability and reliability.

We ensure that organizational data and information is current through turnaround time standards ❸. We monitor data at specific milestones in business processes to verify compliance with established data quality standards and processes ❹. For example, GIS data was being edited by numerous staff and edits were being made that were found to be inaccurate in the field. DPU changed the GIS data revision system to limit the number of people authorized to edit data down to certain specific individuals trained in both editing procedures and in the importance of completing edits based on the revised system.

Outputs from data quality monitoring ❺ are reported and used by the utilities to identify areas for improvement. ❻ As part of the revised system for tracking GIS changes, field crews (FCs) document infrastructure discrepancies on utility

maps with what they find in the field (such as location, size, type, etc.). These documented discrepancies are reviewed by a member of the supervisory team and forwarded to the GIS staff to edit and incorporate into the GIS data set. ❼ Data quality requirements continuously improve through detailed reviews and iterative business process refinements. Financial data sources for FY dashboards are reports developed over the years and used throughout the DPU; Consumption, Budget to Actual, Annual Utilities, etc. After the end of the FY, dashboards are retired and the data is linked to an expanded Annual Comparison Summary (ACS)dashboard and made available to the Clear Point System. This data is known to change after the FY is over, sometimes 6 to 9 months later, due to audit findings. Deputies are tasked with verifying the previous year's expanded dashboard data as they are entering the latest FY's retired dashboard data. This way, the multi-year trending is as accurate as possible.

4.2a2 Availability All data and information availability start with what is needed (called Requirements in **Figure 4.2-2**) to meet the stakeholders (SH) requirements. We ensure availability of organizational data and information by emphasizing system reliability and employing a wide variety of information distribution methods to make sure the users of the data including the WF, suppliers, partners, collaborators and customers have access to their needed data at all times. Our WF accesses data through multiple user-friendly applications available through our secure network when onsite and through a virtual private network (VPN) when in the field or working remotely.

Figure 4.2-2 also illustrates the wide variety of data available to customers through our website, emails, CCC and traditional and social media. Suppliers gain access to data through the same means as well as industry conferences, phone and face-to-face meetings. Regulators establish their data requirements through permitting and other compliance processes and we fulfill those requirements (**Figure 1.2-3**).

To ensure our systems are user-friendly, DPU solicits feedback for continuous improvement from the above list of data users through surveys, emails, calls and requests. If appropriate, our protocols escalate VOC data and WF feedback to the senior management team to initiate the PDSA process. We also provide convenient links to our social media outlets in our external communications to facilitate feedback from customers.

Through an exclusive DPU drive, staff has 24/7 access to reports and data sets developed over the years and all dashboards as soon as the data is posted. County-wide financial reports, budget books and annual audits are stored on LAC's intranet Finance page for access by any DPU staff. Customers have access to data relevant to them through three customer portals: 1) smart mobile app; 2) Advanced Metering Infrastructure (AMI) portal (under development); 3) County-wide MUNIS customer portal (also under development).

4.2b Organizational Knowledge

4.2b1 Knowledge Management We systematically build and manage organizational knowledge through our utilities, including customers, WF, partners/suppliers and other key SHs. Data are stored in managed IT systems for structured data and on file servers for other electronic documentation such as word documents, emails, presentations, memos, reports and other unstructured information.

Users	How We Determine Requirements	Type of Data / Information	Availability
Workforce	Strategic Plan/Objectives & Goals	Performance Metrics/ Dashboards	Internet/ County Intranet Web Portal/Wall Charts
	Master Plans-Gap Analysis	ERP – MUNIS	Drive
	Regulatory Compliance	Regulatory info–LAB SCADA	email
	SOPs/Policies	GIS Spatial Data	Mobile Applications
	AMTs	Financial / Data	24x7 Remote Access
Customers	Emergency communications	Electronic Transactions	Website/email
	Account information	Account information & usage	Smart mobile app/AMI/ MUNIS Customer portal
	Satisfaction Surveys	Outreach	email/Customer Care Center
	Outreach - sponsored events	News	Print/Radio/TV Social Media
Suppliers/ Partners	Contracts	eProcurement Portals	Website
	Solicitation documents	Product Reviews	email
	Agreements/Contracts/POs	Project Data	Electronic Communications, Conferences, Phone, Meetings
Collaborators	Informal Communication	Survey Responses	email
		Product Reviews	Meetings
		Lessons Learned	Phone
		Industry Expertise	Presentations/Articles
Regulators	Permits / Regulatory Compliance	Reports	Internet

Figure 4.2-2 Our Data Needs and Availability System provide a comprehensive approach to determine the key requirements and deliver the data and information to all users.

Data from our knowledge groups are then correlated and blended through business analytics to build new knowledge and insight. We increase the value of our knowledge through knowledge transfer. The transfer and sharing of knowledge within DPU and with our SHs (**Figure 4.2-2**) promotes collaboration, transparency and diverse perspectives related to the evaluation of knowledge and data-driven decisions supported with knowledge. We use specific tools, techniques and standard operating procedures (SOPs) to include knowledge in our strategic planning and innovation processes. The SPP incorporates knowledge in the review and update of SP for both short and long-term business needs. For example, we engage with BPU to update the long-term vision for DPU. We obtain customer feedback through satisfaction surveys and seek new ways to improve the

customer experience. We also receive WF input through engagement surveys. Our culture of innovation affords us the ability to anticipate and respond to rapidly changing business needs identified as strategic opportunities.

4.2b2 Best Practices We systematically share best practices through multiple approaches, both internally and externally within the organization through the communication methods in **Figure 1.1-5**. We identify external organizations that are high performing by comparing their results to our KPMs. For example, Baldrige award recipients (BARs) are found to be high performing. We have incorporated best practices from Ft. Collins, a BAR. Best practices are formalized in our SOPs so performance is consistently measured. Safety related best practices are shared through the Quarterly Safety Committee (QSC). Accidents, incidents and near misses received are analyzed in the meetings. If it is determined that a formal procedure is necessary, the appropriate Deputy is assigned the task to develop and promulgate the new SOP. The SOP is deployed on the DPU intranet. If no formal procedure is deemed necessary at the QSC meeting, then each member of the Safety Committee is responsible to discuss the accident, incident or near miss with the WF staff at the next available weekly group meeting.

When dashboard performance measures in the reviews shown in **Figure 4.1-3** reflect high performing work of a particular organizational unit or utility division, they are communicated at the annual AMT governance meeting. Key performance data considered valuable by that particular sub-group can be sources of information that are the catalyst for additional organizational learning and process improvement. We learn from our WF by asking for their feedback in the employee engagement survey (i.e., information they need but don't have) so that we can make the needed changes as appropriate.

4.2b3 Organizational Learning As we improve our SOPs and systems, we use our knowledge and resources to embed learning in our operations. When we change a process, the entire organization learns when to use the new approach. Focusing on our core competency of accountable management, we always strive to improve. DPU does not want to operate only on memory and tribal knowledge. When suggestions to an SOP or system is considered (**Figure P.2-3**), the first step is to see if the approach needs to be updated or improved. **Figure 4.2-3** indicates our organizational knowledge learning cycle. The approach is based on determining the data and knowledge available ❶, using the Performance Measurement Systems ❷ and the Performance Review Systems ❸ we determine if Learning or Improvement is needed ❹. If so, the SOP is updated using PDSA ❺ and the changes are stored on the server and emailed, as appropriate, to the owner who trains or re-trains. This utilizes the knowledge and resources to embed learning in the way we operate and promotes learning as part of daily work. When a process is improved and innovated, it becomes part of an SOP or the key work systems and processes in **Figure 6.1-1**, which are also improved through the PDSA process. We also learn from customers, suppliers and collaborators at regular meetings, via social media and through external website.

As DPU learns and improves using the Baldrige Performance Excellence Framework, we put more emphasis on our Organizational Learning System as an emerging critical system.

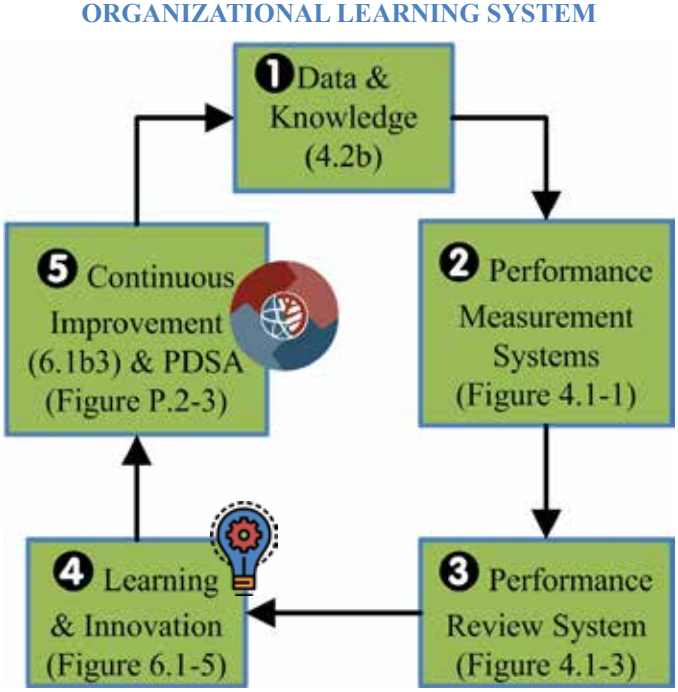


Figure 4.2-3 ***DPU organization learning system is aligned with key elements of our LS (Figure 1.1-1❻) and capitalizes on our culture of innovation and PDSA.***

5: Workforce

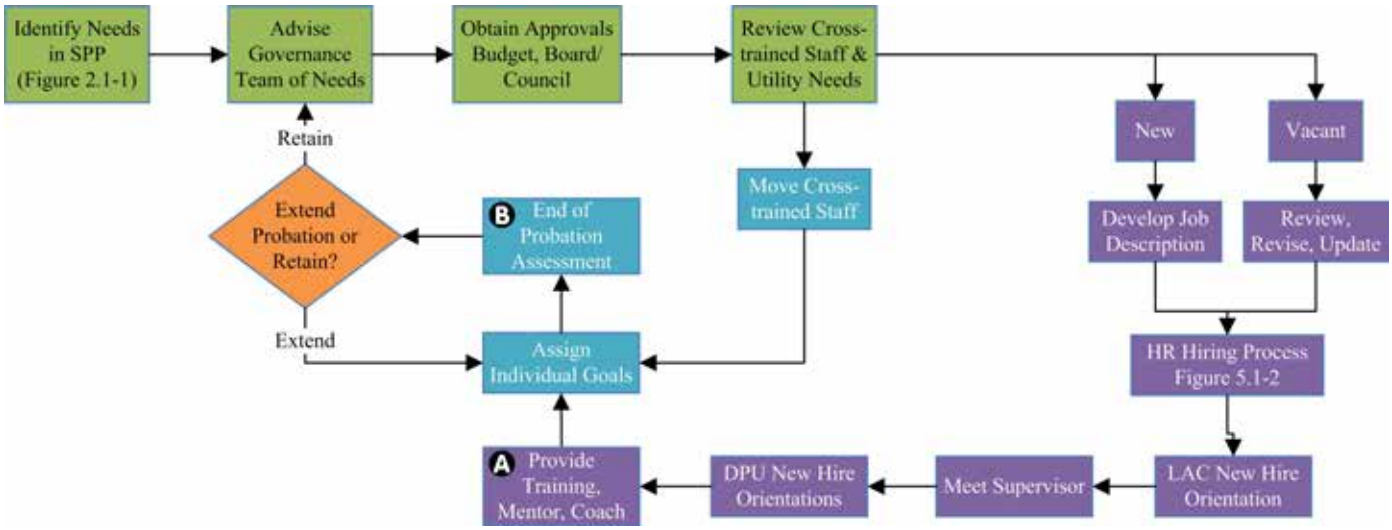


Figure 5.1-1 ***Workforce Capability and Capacity is a systematic process to ensure that annual strategic goals and workforce needs are met.***

Although DPU does not have complete autonomy regarding workforce policies, benefits, compensation, etc., SMT has consistently worked with LAC to gain approval for variances deemed necessary for efficient operations of a complex and diverse utility. While some cycles of learning regarding the workforce were approved and implemented by LAC, DPU has implemented cycles of learning in response to the employee engagement survey results and specific to the services that they provide.

Year	Cycles of Learning
2014	GWS Weld Inspector in House
2014	Pipeline Assessment Inspector in House
2016	Critical Skills Matrix deployed
2018	Field Crews attend AMT

Figure 5.1-0 ***Cycles of Learning have helped DPU retain and engage employees.***

5.1 Workforce Environment

5.1a Workforce Capability and Capacity

5.1a1 Capability and Capacity Needs Determining workforce capacity and capability needs begins with the Strategic Planning Process (SPP) (**Figure 2.1-1**). DPU further assesses workforce (WF) capacity and capability as part of the Asset Management Team (AMT) process. During the budgeting process, each division evaluates how staffing needs can be met based on the department goals, CIP projects and maintenance needs using regular staff, contracted help or temporary staff. The UM strives to keep the number of positions constant to keep utility rates competitive (and has never experienced a forced reduction in WF) as it is extremely difficult to get LAC approval for additional manpower. To meet strategic plans and keep the same count of fulltime employee (FTE) positions, SMT evaluates current positions and changes responsibilities or reclassifies FTEs. Retirements create openings for new positions. Seasonal needs are met by engineering student interns and temporary employees who work under direction of a trained DPU staff member on labor intensive projects. DPU may conduct a job description and position classification through the application review and selection process when SMT feels it is appropriate.

Public utilities are highly regulatory industries and WF is required to be certified in a number of areas. DPU ensures that all staff attain and maintain required certifications and any compulsory continuing education and reimburses them for expenses. GWS staff maintains certifications and skills in gas, water and sewer utilities which enables employees to easily change functions to meet changing needs. Water and wastewater operators must hold NM water Quality Control Commission certificates to safeguard public health. Gas and water distribution and production crews hold welding, back flow prevention and other certificates for higher-level positions. Some certifications are monitored in the Energy Worldnet dashboard.

Competencies are determined by SWOT analyses as part of the SPP. Customer service skills of courtesy, resolution of problem, promptness and knowledge are determined by point of service and biennial surveys. Common competencies for all staff are: Customer Service, Skills/Technical Competency, Organizational Behavior, Initiative, Self-Management, Quality of Work and Leadership/Management Behaviors which have specific behaviors described. Our asset management program requires employees who perform work functions in the field be involved in planning, design and budgeting of O&M or CIP projects, which promotes performance improvement, improved job skills and reinforcement of new knowledge. For new or changing positions, a matrix of critical duties/skills is created. Cross training takes place in all divisions, developing staff redundancy and providing coverage. As a cost-effective measure, outside contractors may be used for infrequently needed skills. DPU uses an on-call contract bid to have quick access to contracted labor, equipment and skills that are either tied up on other projects or not available in house.

5.1a2 New Workforce Members DPU utilizes LAC's standardized recruiting and hiring processes (**Figure 5.1-2**).

HR recruits using local and area newspaper advertisements and postings on the LAC website. At the discretion of the hiring manager, the search can be expanded through professional organizations or publications.

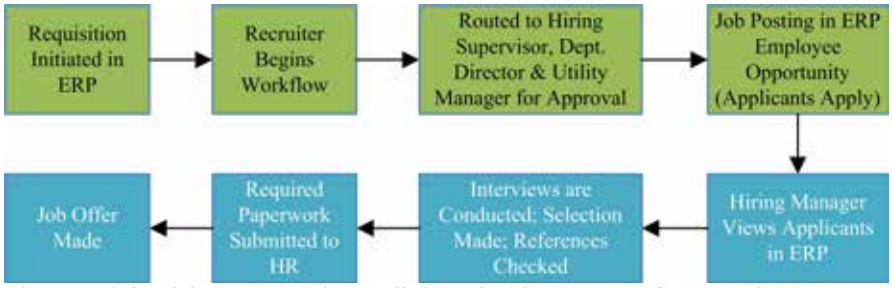


Figure 5.1-2 ***Hiring Process is a collaboration between LAC HR and DPU***

At job interviews, we emphasize our customer service focus. We look for those qualities in candidates. As part of onboarding, we provide mentors (A) to demonstrate desired behaviors and continue to monitor during the probationary period of hire. An assessment is completed at the end of the probationary period to ensure the fit of new hires still meets organizational culture and requirements of the job (B).

The LAC community is made up of well educated, white collar residents. DPU ensures its WF represents the diverse ideas, cultures and thinking of our customer community through MVV and Code of Ethics (**Figure 1.2-5**) which are emphasized in the DPU employee orientation. Each item in the code mirrors our community as employees are expected and encouraged to be trustworthy, professional, service-oriented, fiscally responsible, organized, communicative, collaborative, progressive, innovative and fair. As a result, DPU's WF thinks outside the box and are supported in making suggestions and changes that address the needs of DPU and its customers. Knowing that our community is sensitive to protecting its history and the environment, WF makes decisions in the field that go a step above normal work protocol. Examples of innovative decisions made by DPU WF that exemplify this are: 1) Boring, rather than trenching, underground utilities to protect historical landmarks and 2) Partnering with the LAC's solid waste department and the Department of Energy to cap the landfill and build a 1 MW solar array, thus converting a brownfield (land with no purpose) into a greenfield that produces renewable energy. DPU encourages the WF to become involved in civic and local groups to engage, communicate and listen to the diverse ideas and cultures of our customer community.

5.1a3 Workforce Change Management DPU is staffed with qualified and proficient employees who manage and organize the WF to meet our challenges, achieve our action plans and capitalize on the organization's core competencies (CCs). WF needs are determined through the SP and budgeting processes and AMT program. DPU maintains and updates DPU Continuity of Operations Plan (COOP) that outlines essential functions, personnel and equipment along with emergency contact lists.

DPU Engineering is represented on a LAC team comprising Utilities, Public Works and Engineering to coordinate all CIP projects among LAC departments. This coordination process enables DPU to construct utilities in advance of road paving to minimize costs and disruption to the community. Weekly staff meetings are used to discuss the work schedule, work progress, resources, etc. and to assess WF capability and capacity needs. If the work load exceeds its WF capability, the utility can utilize its on-call contractor to perform the work. Each division and its AMT plan CIP and O&M projects two years in advance plus a long-term, 10-year projection. Safety, quality work, customer service and ethics are primary requirements in completing DPU projects. Learning and continuous improvement is reinforced by the DPU Procedures Committee which ensures that all procedures are documented, discussed and improved during AMT meetings, staff meetings and strategic planning sessions.

DPU staffing is fairly static and generally does not have periods of WF growth or reduction. However, due to changing industry trends, DPU has had to make changes in its organizational structure and work systems. We prepare employees for these changes to prevent staff reductions through training, education and mentoring. For example, the utility industry is quickly moving toward AMI technologies. As a result, there will be a significant reduction in the need for meter reader resources. In anticipation of this future transition, DPU moved the meter reading function under the GWS division so meter readers could begin learning other aspects of utility infrastructure in the delivery of gas and water and wastewater collection. They are being prepared, trained and mentored in this new division and are given the opportunity to move into regular positions as available while they continue to read meters until this effort is no longer needed. Additional training on AMI will also be provided to two or three meter readers to trouble shoot AMI issues. The County would provide outplacement if they were required to downsize but that hasn't occurred. The meter reader example is what could be called "inplacement' as we ensure that staff have the training and skills to move into new positions when their current positions become redundant.

LAC recently implemented a new ERP. Our field subject matter experts (SME) were actively involved in the entire process. They contributed to the requirements definition to ensure that DPU's needs would be met. DPU SMEs and senior management (SM) were part of the selection committee and SMEs worked on the implementation plan.

5.1a4 Workforce Accomplishment WF is organized by divisions (EP, ED, WP, GWS, WW, F&A, ENG and PR). At an all-hands meeting, UM sets the tone for the year outlining the strategic goals and objectives. AMT meets quarterly and the first meeting is a Governance meeting including SMT. At this meeting, members work to understand the big picture and how individual scopes of work intermingle. The goals and objectives are translated into budget, staffing and resources needed, scheduling of work, timing and milestones by AMTs. The work is then scheduled for the WF during their

performance, planning and appraisal (PPA) sessions. Each AMT meets quarterly to review status and make adjustments as necessary. To improve understanding of the financial impact of AMT recommendations, Finance is represented on each AMT.

A mid-year review of PPAs is conducted by supervisors and reviewed by the Deputy. Deputies may have weekly and monthly meetings with their staff to ensure that work is moving on schedule. Monthly meetings are held between the UM and deputies to review work progress.

DPU's CCs are: (a) delivery of safe and reliable utilities services, (b) accountable management, (c) sustainability, (d) building customer and partner relationships and (e) employee development

a. Employees are trained to respond quickly to changing situations like equipment failures or bad weather
b. Employees are empowered to make decisions in the field and in the office
c. Employees are encouraged to find diversified and innovative solutions to problems. For example, an employee used recycled crushed glass as emergency bedding for a pipe when we didn't have any sand
d. The WF is encouraged to engage and interact with our customers
e. DPU provides training, education, certifications, and development opportunities

To reinforce customer and business focus, DPU hires a WF that is customer oriented. Throughout the organization, posters foster business and customer focus. Customer cards and surveys are used to determine customer and business satisfaction.

Performance expectations are communicated with staff frequently. Staff is coached and given feedback during the PPA process. Deputies meet informally with staff to provide feedback, coaching, progress reports and other guidance throughout the year. Development and training opportunities are provided to ensure their success. SMT ensures that WF has the resources needed for success and successes are celebrated.

5.1b Workforce Climate

5.1b1 Workplace Environment WF health, security and accessibility are addressed through processes developed in the DPU Quarterly Safety Committee (QSC), strategic challenges (SC) and LAC Risk Department. Employee safety and health training is provided by the Risk Department. To improve the processes to track employee training, a Risk and HR training data base was employed which automates the processes and sends reminders to supervisors when the employee's training is about to expire and handles enrollment for training classes. Since 2013, DPU administration, engineering and CCC staff are housed in a new Municipal facility located with other LAC departments. The new building meets accessibility needs and provides a safe work environment with security features: key fob access and "panic buttons" at CCC desks. All entrances, departments and rooms are identified in braille. Risk also maintains Emergency Action Plans of specific evacuation procedures and maps for the building and other LAC buildings. Designated employees for each group help the fire department account for all employees during an emergency facility evacuation. CCC and other DPU staff received "active shooter" training. In addition to accessibility needs provided in new office buildings, staff are offered limited duties when returning from an accident or illness and flexible work schedules are available. Comprehensive ergonomic evaluations of work spaces are available and ergonomically designed desks, chairs and special monitor screens are provided when needed.

Environment	Measures	Goals
Health	OSHA violations Safety violations	No Violations
Security	Breaches	No Violations
Accessibility	Facility inspections	No Violations

Figure 5.1-3 ***The 2019 SP contains a specific safety goal (see Figure 2.1-4).***

Twenty-four/seven facilities have cameras. Pajarito Cliffs building has fencing, security gates closing nights and weekends, security wire, metal plates on doors and cameras tied to the standby room. Water production system facilities have Supervisory Control and Data Acquisition (SCADA) intrusion alarms. Hydroelectric facilities are fenced and alarmed, notifying dispatchers of intrusions. Staff must notify dispatchers every time they enter these facilities.

5.1b2 Workforce Benefits and Policies LAC offers a comprehensive benefits package including medical, dental, vision, long term disability and life insurance comparable with other employers in the area. (**Figure 5.1-4**) The process for determining insurance benefits was improved in response to employee surveys by creating a Health Insurance Committee with all LAC departments represented. This committee manages the survey process and makes recommendations for changes. LAC provides all full-time employees (FTEs) a generous tuition assistance program which may be supplemented by DPU. LAC is forming a new Employee Wellness Committee on which DPU will be represented. In addition to free use of the Aquatic Center (indoor swimming facility) and Ice Rink, the committee will look into other wellness/fitness activities and benefits for employees.

Many benefits and policies can be tailored. For example, employees are eligible to participate in three retirement programs. Benefits such as annual leave and stability pay bonuses are based on years of service. DPU offers some flexibility to meet employee work needs with approval of the supervisor and UM. For example, employees can work part-time for a limited period after maternity leave. DPU operates within the LAC Personnel Rules and Regulations which are reviewed and modified by the Personnel Board and Labor Management Committee with approval of LAC Council.

Benefits, policies and procedures are on LAC's website and are covered in new employee orientation. Benefits and policies apply to all employees equally so the electric distribution and gas, water & waste-water union contracts largely focus

Career Training & Development	Employment	Meaningful Work
•Training classes •Tuition reimbursement •Succession planning •Mentors •Coaching •Individual Development Plan •Cross training •Supervisor Training •Certification /license reimbursement	•Online recruitment •Team-based selection process •Apprenticeship to Journeymen	•Regular feedback •Employee Engagement Survey •Benefits Survey •Cross-functional teams •Encouragement to solve customer issues themselves •Suggestions for improvement encouraged •Employees encouraged to invest their time & efforts in personal & professional development •Promoting from within

Health & Wellness	Services, Benefits & Compensation	Recognition & Celebrations
•Wellness Committee •Free wellness program; aquatic center & ice rink •Part-time work option post maternity •Light duties after accident or illness •Flexible work schedule •Fitness discounts	•Medical, dental, vision, long term disability & life insurance comparable with other employers in the area •State sponsored defined benefit program •Stability pay bonuses •Part-time work option post maternity •3 retirement packages •Annual & sick leave •10 paid national holidays •Personal day •Flexible spending •Medical reimbursement account •Dependent care reimbursement account •Tuition assistance •Retirement investment counselling	•Safety Employee of the ¼ (SEQ): Day off •Safety suggestions & SEQ nominees personal thank you letter from UM •Accomplishments recognized in County monthly update •LAC Employee Appreciation luncheon •LAC socials •Years of service & certifications recognized at holiday luncheon •All-hands meeting •Steak luncheon for entire workforce •Themed Spring event with potluck •Summer picnic •UM recognizes all staff successes at each event

Figure 5.1-4 ***Workforce Services & Benefits support DPU staff.***

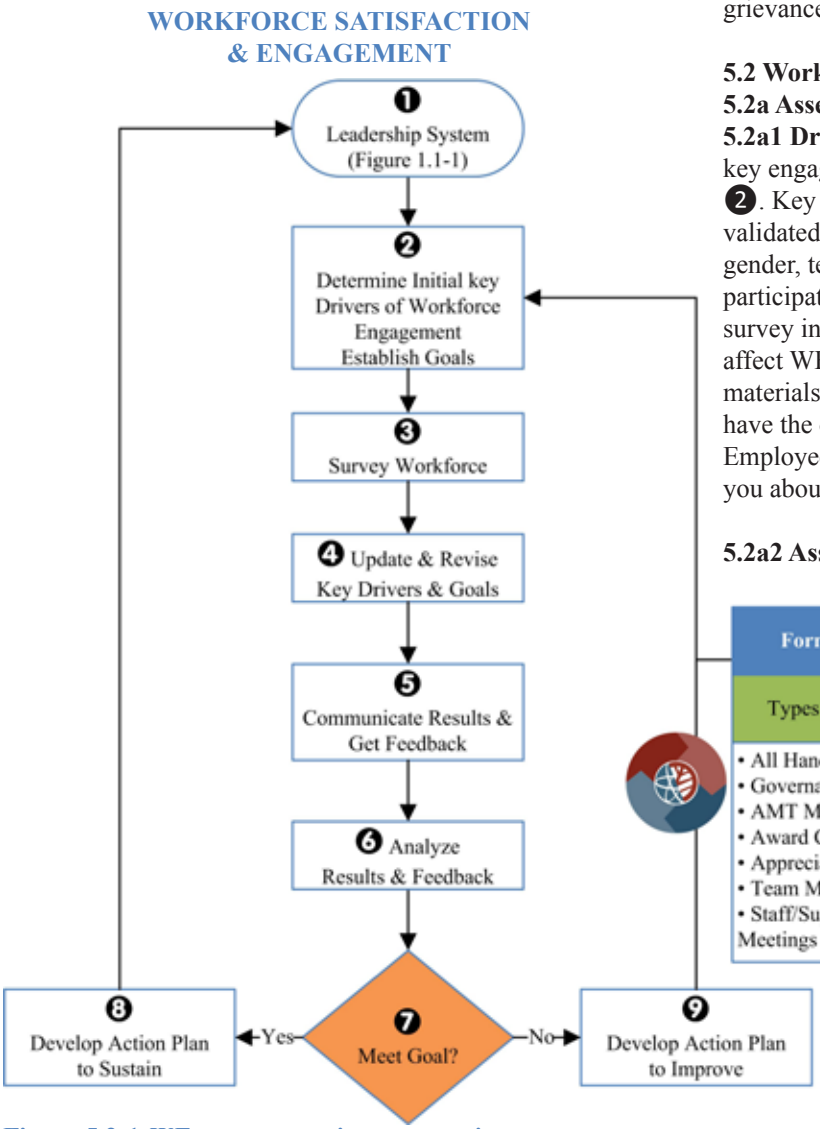


Figure 5.2-1 ***WF engagement is a systematic process to ensure retention of staff and encourage high performance.***

on yearly wage increase, over-time rules, rest period, and grievance procedures.

5.2 Workforce Engagement

5.2a Assessment of Workforce Engagement

5.2a1 Drivers of Engagement ❶Senior leaders determine key engagement drivers as part of setting WF strategic goals ❷. Key drivers of WF engagement and satisfaction are validated through surveys which are segmented by division, gender, tenure, exempt and non-exempt. Originally, DPU participated in the LAC survey but switched to the Gallup survey in 2016. Key elements of the MVV (**P.1a3**) which affect WF engagement and satisfaction are: 1) Do you have materials and equipment to do your work right? 2) Do you have the opportunity to do what you do best every day? 3) Employee Engagement and 4) Has someone at work talked to you about your progress?

5.2a2 Assessment of Engagement One of DPU's formal methods to assess and measure engagement is the Gallup Employee Engagement Survey conducted every second year (**Figure 5.2-1** ❸). The survey results are shared at the all-hands meeting by the UM and reviewed with each division by senior management (SM) and posted on the intranet ❹. Two key issues in all divisions have been communication and participation in decision making. After the 2018 survey, an employee focus group was created to discuss the results, address the opportunities for improvement and submit a written

report to the senior management team (SMT). UM met with each division. One improvement resulting from the dialogue was an invitation to field crews to attend AMT Governance meetings in answer to their request that FC be included in decision making. In 2018, several FC members participated ❺. Due to the small size of our WF, these methods do not differ for groups or segments.

❻ DPU sets targets for, monitors and tracks via dashboards: voluntary and total turnover, grievances, sick leave and safety by division as other indicators of WF engagement. For all but safety, targets are set lower than Bureau of Labor standards and we use the OSHA target. The target set for Gallup results is 4 (Good) on a 5-point scale. DPU aims to rank in the top percentile of comparative groupings. Gallup indicates that engagement worldwide is at 32%; 42% of DPU's WF is engaged. While DPU encourages attendance at all meetings and events as an informal indicator, actual attendance is not tracked.

5.2b Organizational Culture To empower the DPU WF, we created an organizational culture that encourages open communication, high performance and an engaged WF through the Leadership System (LS) (**Figure 1.1-1**). Management and senior leaders (SLs) have an open-door policy and communication is promoted through the use of various meetings and discussions (**Figure 1.1-5**). SLs take an active role in motivating staff to reinforce high performance. Encouraging continuous learning contributing to high performance is one of the core values. The WF survey gives employees an opportunity to share their thoughts with management and encourages engagement as opportunities for improvement are dealt with.

Reinforcement of MVV is shown in **Figure 1.1-3**. DPU's culture is one of customer service, teamwork and collaboration and respect. SLs and management respect employees as they know that DPU's Vision is achieved through the efforts of the WF. DPU's Vision is to be high performing and provide diversified and innovative solutions. Ensuring that our culture benefits from diverse ideas, cultures and thinking of the WF is accomplished by: 1) supporting WF to achieve goals and work on career progression through the Performance Planning and Appraisal (PPA), 2) encouraging idea sharing, suggestions for improvements and participation in lessons learned, 3) involving those who do the work in planning, design and budgeting of projects and 4) empowering employees to solve customer problems. Employees are encouraged to apply 'out of the box' thinking and many enhancements have resulted as described in **5.1a2**.

5.2c Performance Management and Development
5.2c1 Performance Management Performance Management is grounded in DPU organizational culture ❶. DPU's performance management system (**Figure 5.2-2**) to encourage and motivate employees for high performance and utilize their full potential is facilitated by the annual PPA process and informal performance feedback opportunities ❷. Performance is rated for Customer Service, Skills/Technical Competency, Organizational Behavior, Initiative, Self-

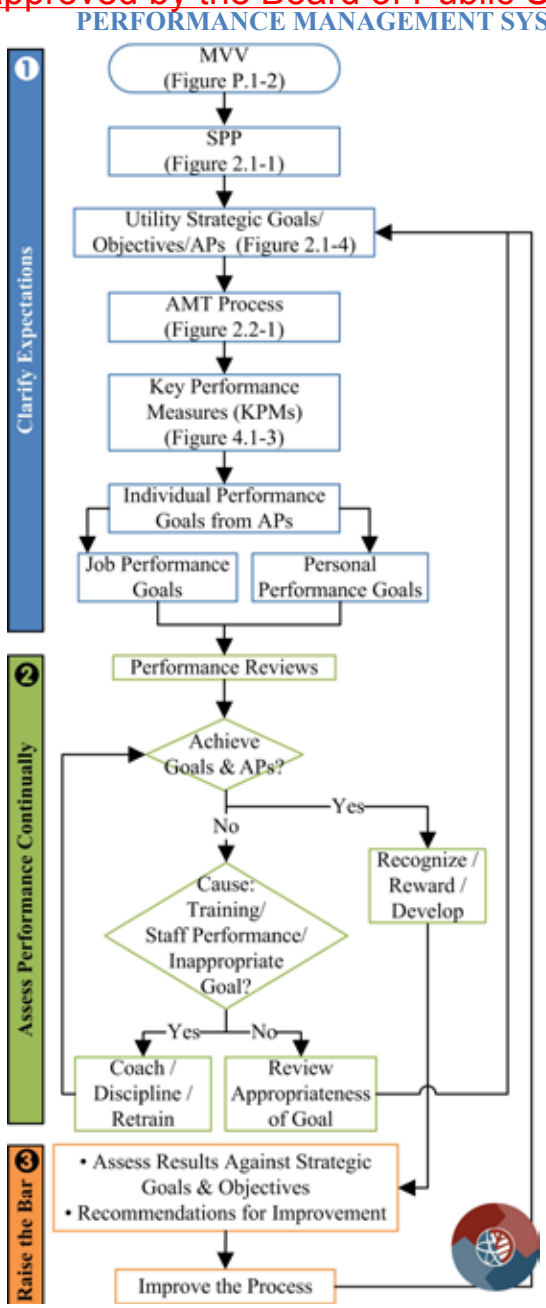


Figure 5.2-2 ***DPU's Performance Management is a systematic approach to encourage and support WF high performance.***

Management, Quality of Work, Leadership/Management and specific Duties/Behaviors.

DPU is a customer services and utility services provider and teaches its employees to strive for excellence in both areas. Customer service starts by looking for customer-focused employee candidates and is reinforced as the key requirement for job success throughout employment. Several divisions including field crews and engineering were evaluated by customers and key partners during their customer/key contacts and field crew call-out surveys. These surveys and the survey process are currently under review as DPU determines how to improve them.

❷ Based on annual performance evaluation, raises (incentive) are now directly determined by employee ranking

to improve and reward employee performance. DPU has recognition programs and several recognition strategies and events as illustrated in Figure 5.1-3. DPU employees select a teammate as safety employee of the quarter who is recognized and rewarded with a day off with pay. High performers are incentivized with additional training and are most eligible for promotions. After 5 years of employment, staff annually receives stability pay if they have met their performance expectations.

Through strategic planning, high performance is directed by the PPAs ❸. The PPA system reinforces intelligent risk taking. DPU allows each member to innovate and "think outside the box" to ensure the end product offers customers the most cost-effective work design solutions. As described in **5.2b**, employees are empowered to solve customer problems and make changes and suggestions in an environment that encourages intelligent risk taking. Staff are encouraged to bring new training suggestions and requests to their reporting managers and often those requests are not only approved but a post training assessment is completed with the employee to see if other staff would benefit from the training. For example, LAC implemented a new ERP and an intelligent risk was taken by reducing the customer care front office staff from 5 to 3, allowing 2 staff to focus on learning the new billing system in the back office. The plan is to rotate staff from back office to front office until all 5 are proficient in the billing process. This was a risk because of the volume of calls the 3 front office staff are left to manage.

The performance management system supports a customer and business focus and AP achievement in ❶ and ❷. Customer and business focus is assured through SP.

5.2c2 Performance Development DPU's learning and development system (Figure 5.2-3) supports personal development firstly with the PPA where employees are asked to include a goal each for their professional and personal improvement. As part of PPA, staff are coached and new employees are mentored to ensure that their learning and development is reinforced. To support employee's development desires, DPU encourages them to suggest training opportunities for themselves and request tuition support. This is a formal process involving the submission of a request form which is approved by the Deputy and submitted to LAC. Tuition may be provided by LAC and supplemented by DPU. Training requests do not always have to apply to improving related job skills. As an example of intelligent risk taking, a plumber asked to take GIS training not related to his job, which was granted. He went on to design the mapping system for LAC, a key business result. Staff have been supported in getting Bachelors and Masters degrees. Employees are encouraged and supported to solve customer problems, make or recommend changes and offer improvement suggestions as detailed in **5.2b** and **5.2c1**. The PPA also supports organizational performance improvement and contributes to key business results as all levels of employees starting with the UM are focused on achieving their goals, which are based on Strategic Planning Process (SPP) goals and action plans. The apprenticeship program as described in **5.2c4** details how WF are coached and mentored.

As an organizational performance improvement example, a superintendent was certified as a trainer of the Pipeline assessment certification program (NASSCO - National Association of Sewer Service Companies). The Gas/ Water/ Sewer (GWS) deputy took an intelligent risk to have him certified resulting in a $645 savings/employee, contributing to business results.

All DPU employees receive Ethics training during orientation which is reinforced in all-hands and other meetings and discussions. They also receive Harassment training annually as treating each other and customers with respect is an ethics component. Fairness is one of our ethical business practices. As a result, staff weigh their decisions in handling customer problems based on fairness to all customers and not just the specific customer with whom they are dealing. As an example, a customer with a water leak receives a huge bill and while it would be nice to excuse that customer of the charge, that would result in other customers ultimately sharing the cost. As a result, the charge stands.

Ethics are part of continuing education required to maintain CPA and Engineering licenses and certifications. In consideration of customer (ethics) and as intelligent risk

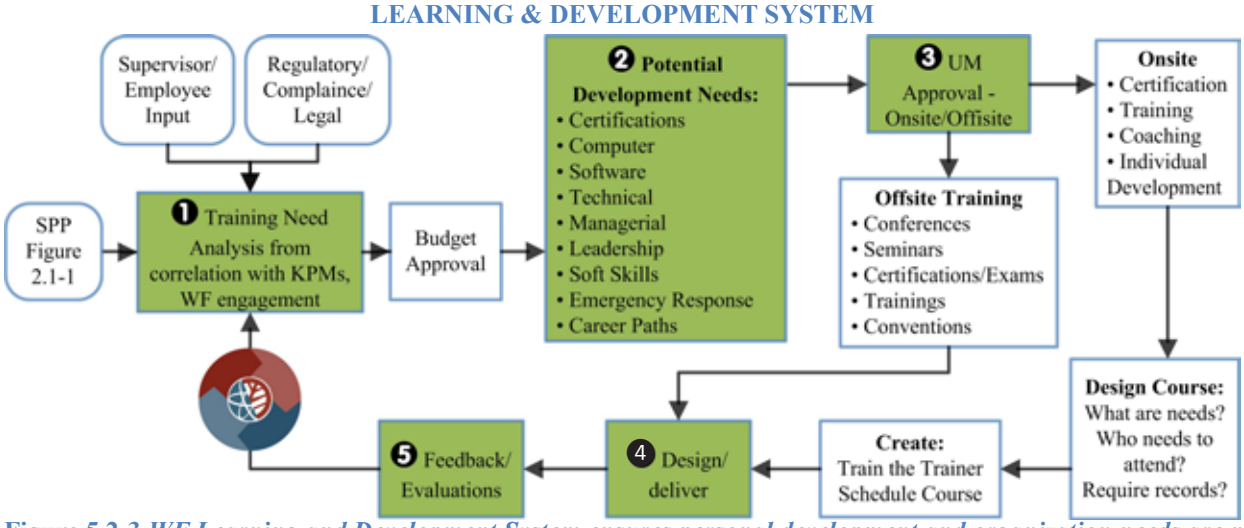


Figure 5.2-3 ***WF Learning and Development System ensures personal development and organization needs are met.***

taking, crew members will reduce water flow to an area rather than shut the water off while repairing a line if they feel it is safe to do so. Power crews may also work hot on a line to prevent power outages. They are only able to do this based on the excellent training they receive and their commitment to the customer.

5.2c3 Learning and Development Effectiveness DPU evaluates the effectiveness and efficiency of learning and development processes through review of organizational measures, customer surveys and in many dashboards and reports as outlined in **4.1b**. Evidence of effective safety learning is shown by correlating declining severity or occurrence of injuries and reflected in job injury reports evaluated by the Quarterly Safety Committee (QSC) and SMT. New training options are sought as better training is needed. As an example, DPU needed better wastewater training which was resolved by utilizing a national provider of training instead of the state program. For training requested by an employee, a post training assessment is done to determine if the training objectives were met and if others would benefit from training. GWS and power dispatchers are trained and tested and results are monitored by supervisors to ensure employees are proficient in skills. NASSCO manhole training is one requirement that DPU felt would be better handled in house. A GWS supervisor was certified as a trainer and even facilitates training for the union.

The performance management system correlates outcomes with business results as demonstrated in the example of meter readers in **5.1a4** where meter readers who would become redundant are being retrained to work in the GWS division and assume positions as soon as they become available. This practice retains people experienced in DPU's culture and procedures and saves time and expense. An improvement example is described in **5.2a2** where certifying the superintendent as a trainer and inspector enhanced training and contributed to key business results by the 66% saving on certification of each employee.

Certifications are an essential part of learning and development in the public utilities industry. Per federal pipeline safety regulations, welds performed on steel natural gas pipelines must be performed by a person certified in American Petroleum Institute (API) Method 1104, with an inspector certified in the same procedure to verify compliance. Prior to 2014, when DPU required steel gas pipeline welding services, we had to hire an API 1104 certified weld inspector. There were none available in LAC, requiring us to schedule out of town inspectors, pay their travel expenses and wait on their schedules. To provide more flexibility, save cost and improve organizational performance, DPU sent our GWS Superintendent to the National Welding Certification School to become a certified API method 1104 welding inspector. DPU now can schedule work around only the welder's availability, with significant savings in cost and speed of repairs.

In April of 2018, LAC implemented LITMOS, a cloud-based learning management system. LITMOS allows managers to author, distribute and track web-based training courses, as well as schedule and track instructor-led courses. Because the system is new, we have not become totally familiar with its functionality. However, we have an action plan established for FY2020 to further explore all the features and determine how we can expand its use, especially to track training requirements and report on deficiencies.

5.2c4 Career Development DPU's PPA process promotes career development and progress with supervisors and employees discussing and planning for growth opportunities and determining training and additional experience needs. DPU provides financial support for training, certification and continuing education costs. The apprenticeship program provides career progression for field crews. Our GWS division is unique as a utility provider because it maintains and operates infrastructure for three utilities (gas, water, sewer) unlike most other providers. GWS staff members have to be proficient and certified in all three utilities. Finding staff qualified in all three utilities has proven to be nearly impossible. Staff are hired with expertise in one utility and then paired with a level 4 for on-the-job training in the other two. To move from one level to the next, they receive regulation and certification training, take the certification test and must prove to their trainer that they have the skills over a 6-month period. Apprentices go from level 1 to 2 and then pipe fitter and finally senior pipe fitter. Employees for WWTP and WP are promoted similarly. Power dispatchers receive formal training for federal certifications and annual refresher training.

In 2015, the critical skills matrix was created to develop future leaders. For key management and leadership positions, critical duties are defined and employees with similar duties are assessed as to their readiness to carry out such duties. The matrix is used to direct training of staff to assume mission critical tasks and to show employees what training they need to be competitive for that position. SLs participate in developing future leaders by mentoring and communicating career paths. SLs work with LAC to successfully promote from within as evidenced by the last two UMs who were internal promotions. Staff in all divisions are promoted from within to supervisory roles.

LAC offers a program for its leaders and potential leaders. The Los Alamos County Leadership Academy's objectives are for participants to develop: a network with other departments, supervisory and leadership knowledge and skills and presentation skills to become more effective communicators. Topics covered are: supervisory skills, leadership models, LAC Code of Conduct, teamwork, communications, HR topics, conflict management, stress management, facilitation skills, transformation leadership, time management, organizational skills and change management.

6: Operations

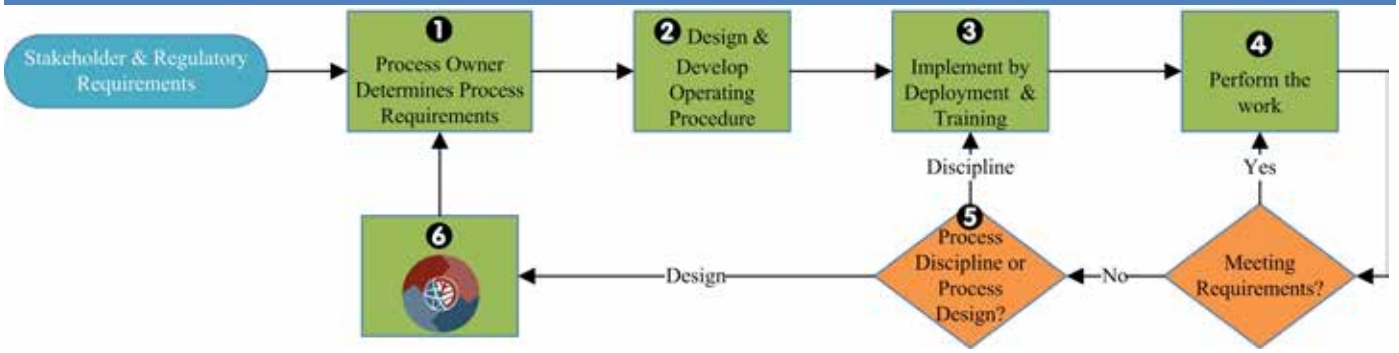


Figure 6.1-1 ***We design our processes to meet and exceed our stakeholder requirements.***

Everything we do is a process. We use the Enterprise Systems model (**Figure P.1-0**) to ensure that all aspects of the business ecosystem are included in work process management. All our key work processes (KWPs) deliver value to our customers, and therefore the focus of most of our innovations (**Figure 7.1-25a**) is on KWPs.

Year	Cycle of Learning
2005/ 2007	Utility Infrastructure Condition Assessments living document
2013	Smart Meter & Dynamic Pricing Pilot Project
2014/ 2019	5-year Management Audit using the QNM Zia application
2014/ 2018	KWP benchmarks expanded
2016	Formally documented our Critical Business Systems as part of the Critical Task Matrices

Figure 6.1-0 ***Operations cycles of improvement have impact.***

6.1 Work Processes

6.1a Product and Process Design

6.1a1 Determination of Product and Process Requirements We determine requirements for key products and work processes from customers' needs and expectations. In ❶ of the Key Work Process (KWP) Design process (**Figure 6.1-1**), process owners identify stakeholder (SH) requirements. Key work systems, processes and their requirements are shown in **Figure 6.1-2**. Key work product and process requirements are collected through several listening and learning methods (**Figure 3.1-2**) including industry benchmark reports from American Water Works Association (AWWA), American Public Power Association (APPA), American Public Gas Association (APGA), American Gas Association (AGA), formal and informal surveys, and Board of Public Utilities (BPU) Meetings. Stakeholder (SH) (including customers) requirements are gathered early to ensure that processes deliver the desired outcome. The process owner reviews the requirements to improve the key work process.

6.1a2 Key Work Processes Our primary work processes are shown in **Figure 6.1-2** with the key requirements and measures of performance.

6.1a3 Design Concepts KWPs are designed using the process (**Figure 6.1-1**), as shown in ❷. The design includes ensuring that the process meets requirements that are identified in ❶. Teams with subject matter experts (SMEs) are assembled early in process design to ensure that organizational knowledge is leveraged. Process owners consider opportunities to incorporate new technology and create customer value to deliver product excellence. Process owners have the necessary authority to evaluate risk and build agility into their processes.

KWPs are deployed in ❸ through Standard Operating Procedures (SOPs) located on servers, in emails, included in training and communication in meetings as appropriate to ensure that the approach is understood by the process users.

6.1b Process Management and Improvement

6.1b1 Process Implementation To ensure that day-to-day work processes meet KWP requirements, process owners track and analyze key performance measures (KPMs) using the method identified in **Figure 4.1-1**. Each key process owner collects and documents key process requirements and designs the process SOPs to meet those requirements. In ❹ the workforce (WF) performs the work and the process owners analyze performance using the KPMs. Many operational processes are measured and analyzed in real-time. Dashboards gather and analyze performance measures on a monthly, quarterly and yearly basis. These measures cover all key SOPs. If a measure is found to be trending in an undesirable direction, the process owner analyzes the situation in ❺ and makes necessary adjustments to reverse the negative trend by determining if it is due to process discipline or the design of the SOP. If it's discipline (the workforce isn't following the process) then they are re-trained in ❸. When the analysis indicates an opportunity for improvement is necessary, a redesign is completed using PDSA in ❻.

KPMs, including in-process measures included in **Figure 6.1-2**, are used to control and improve processes. Day-to-day operations are carried out in accordance with operating procedures developed for specific tasks to ensure they meet key process requirements. For instance, work to be performed on an active electric system utilizes a switching procedure. This is a step-by-step list of the work to take place which is reviewed and approved by all staff involved in the work.

The end of process performance measures relates best to product or service quality.

Key Work System	Key Work Process	Key Work Process Reqmts.	Key Performance Measures (Cat 7 Figure)	In Process Measure	End of Process Measure
Electric Production (EP)	Maintain Infrastructure	1, 3, 4, 5	Equivalent Availability Factor DOE (7.1-1)	√	
			Total Power supply Expense per MWh sold (7.1-15)		√
Electric Distribution (ED)	Maintain Infrastructure	1, 2, 3, 4	O&M expense per all account (7.1-16)		√
	Operate Infrastructure	All	System Average Interruption Duration Index (SAIDI) (7.1-2)	√	√
			System Average Interruption Frequency Index (SAIFI) (7.1-5)	√	
			Customer Average Interruption Duration Index (CAIDI) (7.1-4)	√	
Natural Gas Distribution (GD)	Maintain Infrastructure	1, 2, 3, 5	PHMSA Reportable Main Pipeline Leaks/100 miles (7.1-6)	√	
			O&M expenses per all account (7.1-17)		√
	Operate Infrastructure	All	Therms/Capita/Heating Degree Day (7.4-11)		√
Water Production (WP)	Maintain Infrastructure	1, 2, 3, 4	Water Main Breaks/100 miles (7.1-8)	√	
			O&M Expenses / Million Gallons Produced (7.1-18)		√
	Operate Infrastructure	1, 3, 4, 5	Gallons per Capita Daily (GPCD) (7.4-13)		√
			Total Potable Water Produced (M Gallons) (7.1-7)		√
	Maintain Water Quality	2, 4	Drinking Water Compliance (% days in compliance) (7.4-5)	√	
Non-Potable Water (NP)	Construct Infrastructure	1, 6	System Renewal & Replacement (% of PWV) (AOS)		√
	Maintain Infrastructure	1, 2, 3, 4	O&M Expenses / Million Gallons Produced (7.1-19)		√
			Water Main Breaks / 100 miles of Main Pipeline (7.1-10)	√	
	Operate Infrastructure	1, 3, 4, 5	Gallons / Capita/ Day (GPCD) (7.4-12)		√
			Total Non-Potable water produced & distributed (Million Gallons) (7.1-9)		√
Water Distribution (WD)	Maintain Infrastructure	1, 2, 3, 4	O&M Expenses / 100 miles of Main Pipeline (7.1-21)		√
			Water Main Breaks per 100 miles of Main Pipeline (7.1-11)	√	
	Operate Infrastructure	All	Water Service Affordability (Ave. Residential Monthly bill vs Median Household Income) (7.1-12)		√
Wastewater Collection (WC)	Maintain Infrastructure	1, 2, 3, 4	O&M Expenses / 100 miles of Main Pipeline (7.1-24)		√
			Sewer Overflow Events / 100 miles of Main Pipeline (7.1-22)		√
	Operate Infrastructure	1, 2, 3	Sewer Service Affordability (Ave. Residential Monthly Bill vs Median Household Income) (7.1-13)	√	
Water Treatment (WT)	Maintain Infrastructure	1,2,3,4	O&M Expenses /Million Gallons Treated (AOS)		√
	Operate Infrastructure	1,2,3,4, 5	Gallons of Sewage Conveyed & Treated (Million Gallons) (7.1-23)		√
	Maintain Water Quality	2, 4	WWTP Compliance (% Event compliance vs. All permit events) (7.4-6)	√	
ALL	Safety & Emergency Response	All	Percent of Emergency Exercises Completed (7.1-26)		√
			OSHA Incident Rate (7.1-27)	√	√
Key Work Process Legend: 1: Reliability, 2: Quality, 3: Affordability/Value 4: Regulatory Compliance 5: Sustainability					

Figure 6.1-2 ***Key Work Processes meet their requirements and provide direct alignment to performance measures.***

6.1b2 Support Processes Our key support processes are determined based upon the support needed to sustain the overall operations of DPU and are included in Figure 6.1-3. These are essential to supporting KWPs and services in our day to day operations and are determined by how they provide value to our customers, enhance financial return or leverage organizational success.

6.1b3 Product and Process Improvement DPU's process for improving work and support processes to improve our products and process performance starts when SH, including the WF, identify a need to improve a work process. We utilize PDSA as our primary approach to improve overall process effectiveness (Figure P.2-3).

Reviews of performance measures can also indicate an opportunity for improvement. Improvement ideas are brought to management or the process owner's attention for consideration. If the change is simple, the owner of the process is authorized to make changes. If the changes affect multiple

Key Support Process	Key Support Process Reqmts.	Performance Measures (Cat 7 Figure)
Finance (F&A)	1, 3, 4	Number of Billing Adjustments Past due receivables > 90 days (7.5-8)
Customer Care Center (CCC)	2, 4, 5	Abandon calls (7.1-25) Customer satisfaction (7.2-6 & -7) Average wait time (7.2-1)
Public Relations (PR)	4, 5	Bill inserts (7.2-4) Social media engagement (7.2-5) Natural Gas Public Awareness Program (AOS)
Human Resources (HR)	2, 4	Training Hours (7.3-1) Tools & Equipment (7.3-2) Turnover rate (7.3-4) Employee Engagement 7.3-9)
Key Support Process Requirements: 1: Reliability, 2: Quality, 3: Affordability/ Value, 4: Excellent customer service, 5: Access		

Figure 6.1-3 ***Our Key Support processes ensures that we meet key stakeholder requirements.***

stakeholders, a meeting of the stakeholders will be scheduled to consider and possibly implement the suggestions if doing so aligns with one or more core competencies. If funding is needed, approval must be secured from BPU and Council. There is an agenda process for staff to bring recommendations forward for approval.

Initiating and completing field crew service requests is an example of how improvements to work processes are made. This field work includes trench inspections, meter installs, service connects or disconnects, and initiating billing and discontinuing service. These core processes overlap many groups in DPU's operations. To keep rates competitive, it is critical these processes are effective and efficient. A team with representatives from all areas met and reviewed what was being done and what should be changed. The entire process was documented with a description of responsibilities and how the work is conducted within the Enterprise Resource Planning (ERP), MUNIS. Inefficiencies were identified by the employee focus group which recommended changes to improve the process, including defining responsibilities for customer care center (CCC) representatives entering the request into the ERP work order system and engineering for inspections and operations doing the work. This team resolved issues and the improved process continues to evolve for improved work flow and efficiency.

DPU has developed and deployed a process library with SOPs kept on a network drive so they can be accessed by the entire WF to reduce variability. Each operational area of DPU performs periodic reviews of their key work processes. This review process is performed by process owners and users systematically going through process steps asking "why do we do it this way and is there a better way?" A change procedure is utilized to ensure improvements are made as needed with management oversight. This process review is overseen by an Operating Procedure Review Committee (OPRC) that meets on a quarterly basis, with a representative from each operational area. The purpose of the committee is to ensure that all operating procedures are reviewed at regular intervals by SHs to look for process improvements. DPU also has a process for deploying proposed changes to our Construction Standards or operations procedures when there are regulatory changes or changes in industry standards which will require policy or procedure changes. The policy or procedure change is routed through the appropriate Asset Management Team (AMT) for input before being submitted to management for final approval.

DPU employs PDSA to improve our processes and root cause analysis to solve our operational problems. See **Figure P.2-3**. Root cause analysis is performed when an issue arises. The process for root cause analysis is:

1. Describe the problem,
2. Determine why it happened,
3. Determine what can be done to prevent from happening again or to minimize and
4. Assign resulting actions with responsible parties and due dates.

6.1c Supply-Network Management Our approach to selecting qualified suppliers to meet our operational needs is included in **Figure 6.1-4**. DPU's purchases are guided by its purchasing regulations which follow the New Mexico Procurement Code. New Mexico emphasizes transparency and equal opportunity to bid. Bidding processes are either Invitation for Bidders (IFB), Request for Qualifications (RFQ) or Requests for Proposals (RFP). We procure items

Select Supplier	Promote Alignment & Collaboration	Ensure Agility	Communicate Performance Expectations, Measure & Evaluate Performance
Water, DPU Water Production	Div. of DPU under Deputy Utilities Mgr. control	Divisions of DPU working together	Daily operations and weekly feedback meetings
Electric Power, DPU Power Supply 75% owned Resources	Division of DPU		Performance expectations are communicated through daily operations and weekly meetings
Negotiated long term gas supply with the Natural Gas suppliers	NM Municipal Energy Acquisition Auth. (NMMEAA), partnership of 4 municipal utilities for mutual benefit	Deal was based on 80% of our historical usage to ensure that we haven't over purchased	DPU communicates annually to County Council customer savings due to NMMEAA gas pre-pay.
Wholesale gas, water & electric equipment suppliers through procurement process	Standard Specification aligned with industry standards	Working with local suppliers on DPU challenges & needs while keeping apprised of new products offered by supplier	DPU communicates with suppliers regularly during the solicitation of goods and through product demonstrations by supplier.
Professional Consultants selected through RFQ & RFP process	Long term established relationships	Pre-approved on-call contracts where by work can begin immediately via task orders	Clear Evaluation Criteria, Construction Standards New work is not guaranteed if work is unsatisfactory.
Electric Power, 25% market purchases using Market Surveys	Expanded market reach	Daily correspondence with Marketers who have ability to adapt to changing market conditions	Day Ahead Schedules & daily market surveys. New purchases are not guaranteed if deliveries are not met. 100% Firm Power delivered, Reliability, competitiveness with Index pricing
Electric Coordination Agreement, LAC and DOE	Common goals for affordable & reliable power supply, sharing power dispatch services.	Sharing of block power purchases and sales among LAC, LANL & Sandia, Kirtland	Bi-monthly Operating Committee meetings covering resource updates, generation resource availability and compliance with regulatory bodies.
Member of Utah Associated Municipal Power Systems (UAMPS)	Generation, transmission, with Govt. & Public Affairs impacting our industry	Lower risk through partnership, sharing knowledge with changing markets, regulations	Monthly project committee feedback meetings

Figure 6.1-4 ***Our Supply-Network provides an effective process to manage our suppliers.***

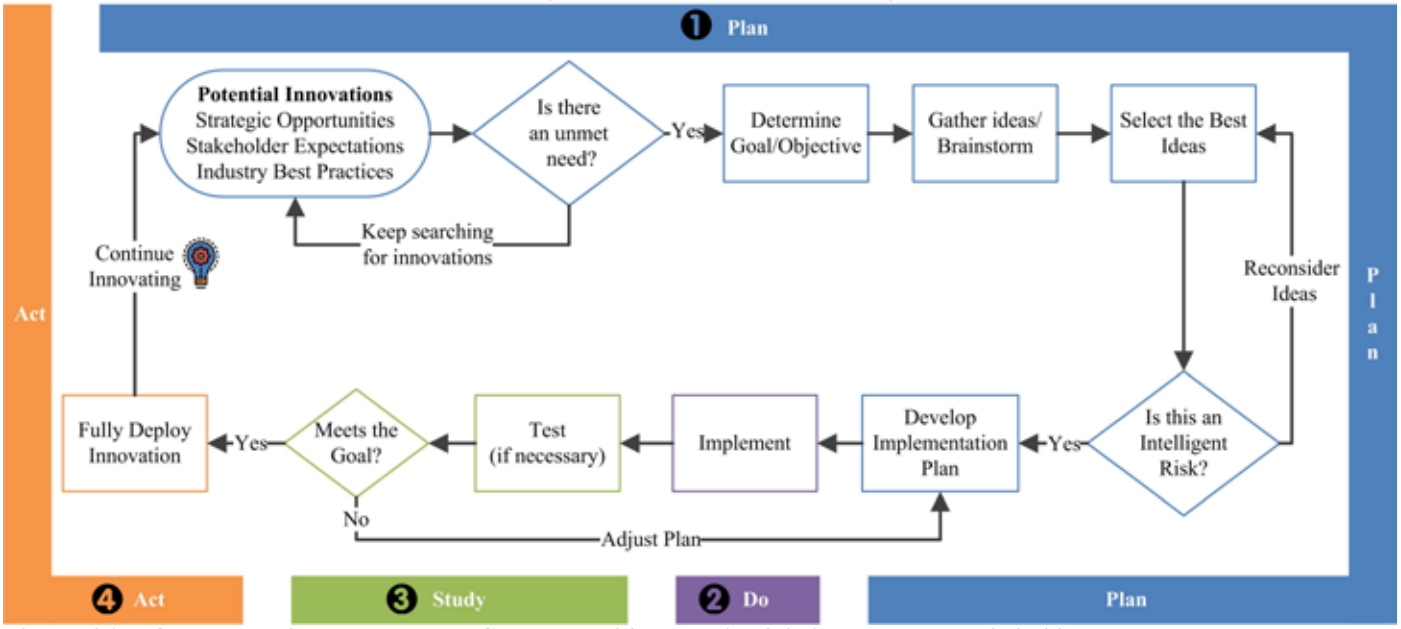


Figure 6.1-5 ***Our Innovation Management System provides meaningful change to our stakeholders.***

and services that have clearly defined specifications governing scope, schedule and quality using IFB's to get the lowest available price. In many cases, however, vendor experience, knowledge and resiliency are important factors in securing the best supplies and services to keep DPU competitive. In such cases, we issue a RFP and negotiate with the best qualified vendors to secure the best value for DPU. If unique technology or standardization dictate a sole source of supply, we write a sole source justification to our procurement office stating the reasons for the sole source selection and why there are no other vendors capable of supplying the goods or services.

6.1d Innovation Management We use the Innovation Management System (**Figure 6.1-5**) to guide our pursuit of innovation. The approach follows the PDSA steps (**Figure P.2-3**). We begin gathering potential innovations in the plan phase ❶ by determining strategic opportunities determined from the Strategic Planning Process (SPP, **Figure 2.1-1**), SH requirements (**Figure P.1-6**) and industry best practices. A decision is made if the potential innovations are addressing an unmet need. If so, we establish objectives and goals to be achieved by the innovation and establish performance measures that determine if the innovation is effective. We brainstorm for ideas from our SMEs and compare these solutions, selecting and refining them to quickly and cost-effectively meet the objective(s). In assessing the intelligent risk, the following are key questions we use in determining intelligent risk:

1. Is the innovation cost-effective?
2. Could the innovation result in unintended or unwanted consequences?
3. Does the innovation comply with current and anticipated regulatory requirements?
4. Does the innovation produce technically sound, defensible and repeatable results?

We develop an innovation implementation plan with initial budgets and resources and clear accountability. We implement the plan in the Do phase ❷. We test ❸ the innovation by reviewing the performance measure and soliciting feedback from our customers, SHs and internal staff to gauge the effectiveness of the implementation, as appropriate. We fully deploy the innovation ❹. Over time, as it becomes clearer that the innovation demonstrates increasing merit, we may dedicate additional funding and resources as necessary to support the plan. If the innovation is not effective in meeting the performance goal and the requirements, we return to the develop implementation step and re-plan as necessary. We may discontinue the innovation if a better idea surfaces or it just doesn't work in making meaningful change at DPU. For example, our customers wanted an application to engage with us and our services. As we progressed, we determined that the systems could not communicate effectively, so we are seeking other potential solutions.

We assembled a citizen committee (the Future Energy Resources or FER committee) to recommend future energy resource solutions. This group consisted of members of LANL, the public schools, commercial and residential customers. They provided innovative suggestions for DPU to assess. Since we are community-owned versus an investor-owned utility, we share our innovation with sister community-owned utility organizations that may be seeking similar solutions to common problems. The 1600 smart electric meter pilot project on North and Barranca Mesas is an example of innovation. By installing smart meters we were able to test virtual dynamic pricing to determine which pricing signals better influence customers' behavior to shift their electric load to different times of the day when electricity is less expensive for DPU. Using this information, we will be able to develop appropriate time of use rates after DPU has installed Advance Metering Infrastructure (AMI) for all its customers. AMI includes electric smart meters and communication modules to transmit gas and water consumption data in 15-minute increments. The AMI project will be implemented in 2019 and completed by 2021.

Year	Cycles of Learning & Improvement
2009	AMTs review process performance
2011	Safety Culture Vision established
2015	Operating Procedure Review Committee
2018	SP focus on benchmarks
Annually	Safety & emergency drill improvements

Figure 6.2-0 ***Key work and support processes are more effective due to improvements.***

6.2 Operational Effectiveness

6.2a Process Efficiency and Effectiveness As discussed in **6.1a3** design concepts, during the design of a (SOP) DPU considers the following factors of cycle time, productivity, efficiency and effectiveness as appropriate. Once the SOP is being used, overall operational performance is closely monitored through in-process measures and outcome measures in **Figure 6.1-2**. Many performance measures are benchmarked against industry measures and all performance levels are trended against past performance. To minimize productivity losses the Asset Management Teams (AMT) meet quarterly to review performance and discuss any areas of concern.

To prevent defects, service errors and rework and to minimize the costs of inspections, DPU's overall performance of operations are managed by several systems which include monthly dashboard reviews, quarterly financial reviews, operating procedure reviews, Asset Management Program, standardized methods, Project Administration Procedures (PAPs). For example:

1. Dashboard reviews: Monthly as each operational area allows us to be agile and address problems proactively.

2. Quarterly financial reviews: Ensure that we are operating in accordance with our established budgets and discuss any need for additional financial resources to meet our key requirements and expectations in the delivery of our services.

3. Operating Procedure Reviews: DPU's process for systematically reviewing key SOPs allows us to incorporate new innovative ideas resulting in efficiency gains.

4. Asset Management Program: For the eight utilities systems, AMTs include planning for adequate maintenance to preserve and protect the utilities infrastructure, planning for asset replacement or refurbishment to mitigate impacts of failure and ensuring utility rates support these replacement or refurbishment plans. AMT Governance review process ensures that all the AMTs are performing their due diligence analysis for maintaining their systems to meet the needs of our customers at the lowest cost.

5. Standardized Methods: Ensuring consistent standards of construction begins with the Utilities Construction Standards - a manual with drawings and specifications. These standards are included in all bid packages for Capital Improvement Programs (CIPs).

6. PAPs: 18 SOPs that guide projects from beginning (Implementation Requirements) to end (Project Closeout). These SOPs include alignment to the Mission Statement, Design Concepts, Project Performance Measures, Baseline Change Control and Project Specific Training. This approach ensures we eliminate any unnecessary waste on projects and keep the projects on cost and schedule.

As an example, wastewater collections AMT recommended a program of regular sewer video inspections along with root control and cleaning of the collection system to reduce costs associated with sewer back-ups and infrastructure replacements.

6.2b Security and Cyber security DPU's information systems are controlled by Los Alamos County (LAC) to maintain awareness of emerging security and cyber security threats. LAC ensures security and cyber security of sensitive or privileged data and information by deploying a defense-in-depth approach, which is the concept of protecting a network with a series layered security mechanisms:

1. LAC makes use of multiple Demilitarized Zone (DMZ) perimeter networks used to segment the internal network and services from untrusted access.
2. A next-generation firewall allows legitimate traffic while blocking bad traffic through a series of rules. The firewall also uses port and network translation to segment and secure necessary incoming traffic for appropriate data/service ingestion.
3. Intrusion Prevention Systems (IPS) are employed that block known malicious signatures in files or external attacks. The firewall IPS is updated by subscription every 24 hours to ensure relevance against new and modified threats. The IPS constantly monitors incoming traffic for malicious signatures and will alert staff when unacceptable thresholds are surpassed.
4. Web filtering and filter definition services block web sites known to host malicious traffic, protecting computers from infection.
5. Email security appliance scans all corporate email for viruses or links to sites hosting malware.
6. Enterprise antivirus (AV) is installed on every endpoint set to scan all files for malware.

Because there are so many threats with such a wide variety of attack methods available, there is no single method for successfully protecting a network. Utilizing the strategy of defense-in-depth reduces risk of having a successful, and likely very costly, attack on the network. We maintain awareness of emerging security threats using a variety of resources such as the SANS institute, NIST cyber security standards and employ the services of expert vendors to ensure LAC systems have adequate protection from attacks.

LAC has also developed a user security policy to educate employees of security needs, issues and their responsibilities for system and data security. Other policy has been developed for specific areas of Information (IT) and security including email, mobile devices and use of social media. Employees are encouraged to read security policies annually.

We manage electronic and physical data and information to

ensure confidentiality and appropriate access by requiring all employees, vendors and partners with access to DPU data to sign a confidentiality and data usage agreement. All parties are provided access only to data they require to get their work done. All systems employ the model of zero access to start and rights are granted as needed by job function. Limited confidential information is kept on customers; social security numbers or bank account information are not stored on LAC servers.

We use a one-size-fits-all approach to identify and prioritize information systems to secure them from cyber-attacks. All LAC systems follow the same standards and guidelines for cyber security which makes deployment, maintenance and troubleshooting more effective and efficient. Computer systems are protected from cyber security attacks by ensuring all laptops are fully encrypted, mobile devices require installation of Microsoft Azure mobile device security application and outside access to the LAC network requires use of the Virtual Private Network (VPN). Two-factor authentication is employed when required to remotely access the network. Strong passwords are enabled throughout the network and must be changed every 90 days and customer accounts are locked after three invalid login attempts. Accounts with 90 days of inactivity are automatically locked. The LAC Server rooms access is limited and the rooms are kept locked. Video surveillance and door sensors are used for monitoring access and notifying IT staff of entry to Server rooms.

Multiple approaches are utilized to successfully detect, respond to and recover from cyber security breaches. Real-time notifications of systems and the deployment of auto updating subscription-based threats definitions are received from LAC security vendors and other security sources to keep cyber security appliances and software up-to-date. Cyber security audits are performed by a third-party vendor and remediation efforts are prioritized and implemented to reduce exposure to cyber-attacks. Security updates are performed on a daily/weekly basis to the network, server and end user computers. Server software updates are applied monthly to ensure that security driven patches are implemented on a timely basis.

6.2c Safety and Emergency Preparedness

6.2c1 Safety Our safety culture vision (Figure 6.2-1) is centered around the slogan "Our Way of Life, Join Us." Our preamble to safety states: "DPU seeks to create a safety culture where employees practice safety every hour on the job, while no one is watching, because employees want to, not because employees have to." Our goal is to promote how safety is managed in the workplace by creating a work environment which reflects attitudes, beliefs, perceptions and values that employees share when it comes to safety. Our approach and deployment safety methods are included in Figure 6.2-1. In addition, we hold a Quarterly Safety Committee meeting. In this meeting, we review and share best practices, address safety prevention, inspections, root causes, analysis of failures and how we recovered as necessary.

We Believe:	Approach/Deployment
Safety is First	• WF recognizes that safety is first no matter the circumstance • WF has obligation to report & follow-up unsafe conditions • Be aware of "what could go wrong" & maintain a sense of vulnerability • WF empowered to call "time-out," reassess or re-evaluate • WF responsible for safety of co-workers & public
Lead by Example	• SLs committed to WF safety • SLs committed to developing & fostering mutual trust • SLs follow all safety rules • Leaders monitor/review near-misses, SIRs; take actions to avoid repeat incident
Establish High Work Performance	• System for performance measurement & rewards • Ensure crews have training, tools & PPE to work safely • Empower WF to identify training needs to meet/exceed job safety requirements
Brief/Tailgate Every Job	• Field supervisors shall complete job briefing forms daily or for every project • WF affirm job briefing forms • WF empowered to extend job brief until full understanding • WF empowered to call out safety rule violations • While at job site, WF wears appropriate PPE including hard hats
WF Safety Suggestions	• Managers seek WF input & suggestions on procedures & safety • WF empowered to make work & safety suggestions • Evaluate WF suggestions & respond • System for monitoring safety performance measures • Encourage innovative solutions to safety problems
SLs=Senior Leaders, WF=Workforce, PPE=Personal Protective Equipment, SIR=Severe Injury Report	

Figure 6.2-1 ***The Safety Culture Vision, beliefs provide clear guidelines for all employees.***

6.2c2 Business Continuity We ensure that DPU is prepared for disasters and emergencies using our PDSA approach (Figure P.2-3). Safety and Emergency Response is a key work process; therefore, we use our key work process (KWP) design process (Figure 6.1-1) to identify performance requirements and develop processes that deliver the desired level of service for all utilities and all SH. Considerations include prevention, continuity of operations and recovery. Once vulnerabilities and threats are identified, plans are developed to mitigate risks, including ways to ensure the availability of a well-prepared workforce, reliable suppliers and partners. As described in **6.2b**, IT systems are designed to be secure and continuously available to meet business and customer needs. Numerous preparedness plans have been developed, including the Emergency Operations Plan (EOP) coordinated with Los Alamos County, Continuity of Operations Plans (COOP) an internal plan to make sure we have an easy to use SOP for all employees in case of an emergency (2-page document), Emergency Action Plans (EAP) for the Dam and hydroelectric generating plants (regulatory requirement) and electric, gas and water curtailment plans. To ensure robust deployment of plans, staff conducts multiple exercises on preparedness plans each year staff also participates in emergency tabletop/fullscale exercises developed and practiced by the county and appropriate SH. Lessons learned from exercises and real emergencies are documented and incorporated in preparedness plans and the PDSA cycle continues.

7: Results

When an issue surfaces, the first question asked by the SMT is, "What does the data tell us and how do our results compare to valid comparisons?" DPU selects, collects and integrates data to determine progress in business, customer and process results and measure stakeholder DPU satisfaction (Figure 4.1-1). Results using comparative data provide current progress toward meeting strategic objectives and action plans against benchmarks where available. The use of "gut feel" data and information is not in our culture. Results drive improvements at DPU. Performance expectations are high and the workforce strives to sustain that in every transaction, every time.

Preferred trends are up unless indicated by a down arrow. Better

7.1 Product and Process Results Item 7.1 is a complex criterion. To answer the breadth and depth and to ensure all aspects are addressed, a table of contents has been provided:

7.1 Results Area to Address	Source of Requirement	Result Figure(s)
a Customer-Focused Product and Service	Figure P.1-6	7.1-1–7.1-13
b1 Work Process Effectiveness, Efficiency & Innovation	Figure 6.1-1	7.1-14–7.1-25
b2 Safety and Emergency Preparedness	Figure 6.2-1	7.1-26 & 7.1-27
c Supply-Network Management	Area 6.1c	7.1-28

7.1a Customer-Focused Product and Service Results Performance measures in **7.1a** provide results that are integrated to Strategic Objective 3.1 "Customer Service processes and systems are efficient and used friendly," in Figure 2.1-4.

Customer Segment: Electric (EP/ED) To measure the effectiveness of our ability to maintain our infrastructure to produce electricity, DPU tracks the Hydroelectric Equivalent Availability Factor (EAF). The measure provides available hours on an annual basis. As indicated in Figure 7.1-1, Abiquiu meets and exceeds the benchmark in all years and El Vado has made significant improvement and is approaching the benchmark.

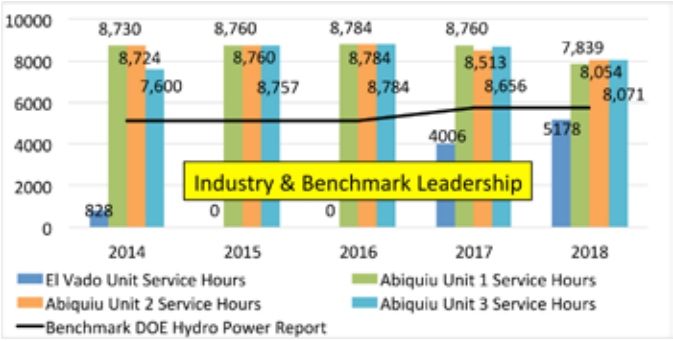


Figure 7.1-1 Hydroelectric Equivalent Availability Factor (EAF) by unit (EP)

Overall performance for the delivery of electricity is measured by System Average Interruption Duration Index (SAIDI) (see acronym glossary) in Figure 7.1-2. Our goal is to be below 60 minutes (:60). We exceeded the APPA benchmark 4 out of the last 6 years. Some of our electricity comes from LANL and jurisdiction and is out of our control. In 2017, they impacted our electric distribution. We lost a supply station and both feeders to our switching station that caused SAIDI to increase.

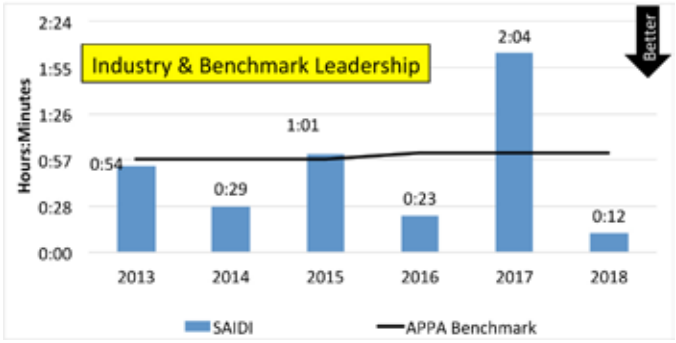


Figure 7.1-2 Electric System Average Interruption Duration Index (SAIDI) (ED)

We use Average System Availability Index (ASAI) (see acronym glossary), Figure 7.1-3, to measure system reliability and we are performing well above the APPA benchmark.

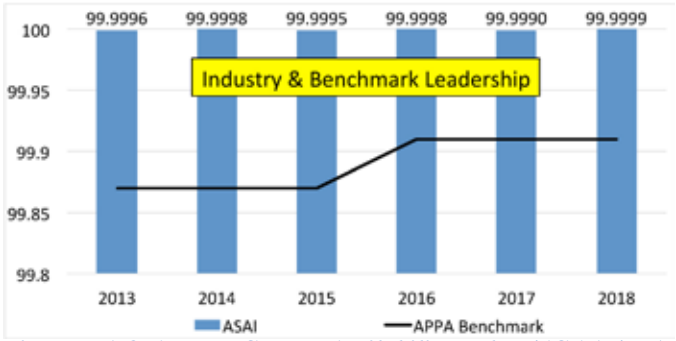


Figure 7.1-3 Average System Availability Index (ASAI) (ED)

We have seen an increase in Customer Average Interruption Duration Index (CAIDI) (see acronym glossary) over the last 2 years, Figure 7.1-4.

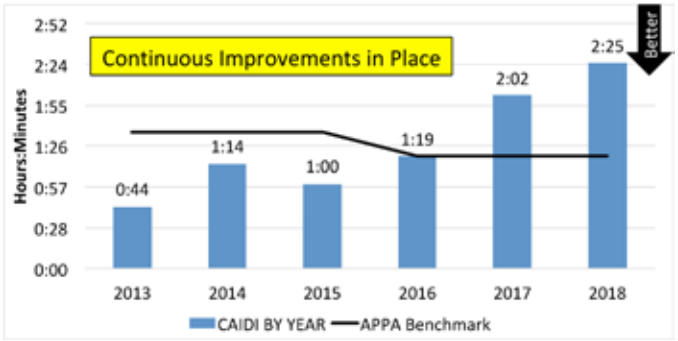


Figure 7.1-4 Customer Average Interruption Duration Index (CAIDI) (ED)

We also measure the reliability using the System Average Interruption Frequency (SAIFI) (see acronym glossary), Figure 7.1-5. Results indicate continuous improvement and benchmark performance versus the APPA benchmark.

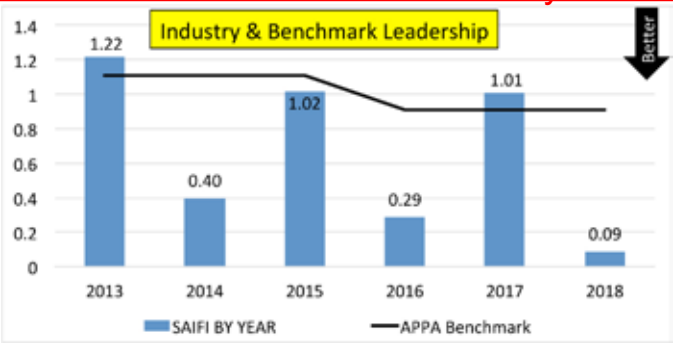


Figure 7.1-5 *System Average Interruption Frequency Index (SAIFI) (ED)*

Customer Segment: Gas The number of gas leaks per 100 miles of main pipeline is a useful measure of the overall quality and reliability of the gas distribution system, **Figure 7.1-6**. Results indicate benchmark performance versus the APGA national standard.

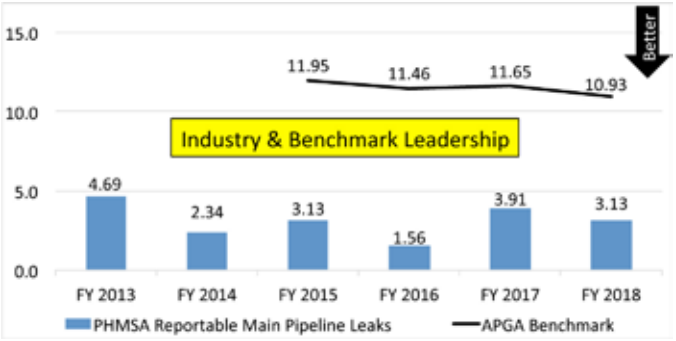


Figure 7.1-6 *Reportable Main Pipeline Leaks per 100 Miles of Pipeline (GD)*

Customer Segment: Water (Potable and Non-Potable) We track potable water produced in **Figure 7.1-7**. This is a simple cumulative total to show if actual water produced matches projected sales. Projecting water demand can be very complex, taking into consideration variables such as past usage, population changes, weather and conservation. Being able to accurately calculate water demand is very important when planning future projects and budgets. An accurate forecast can be a good indication that different tracking systems, such as metering, are efficient and functioning well.

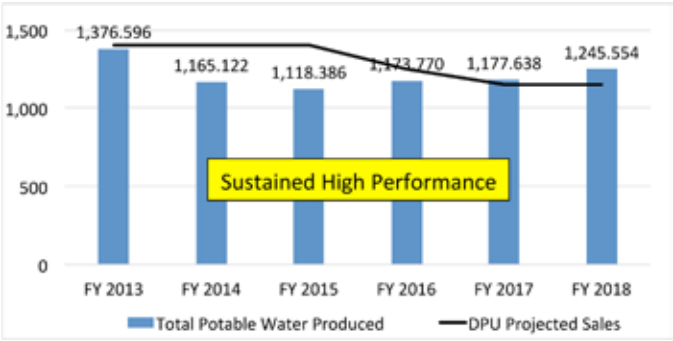


Figure 7.1-7 *Total Potable Water Produced (Million Gallons) (WP)*

The number of water main breaks per 100 miles of main pipeline is an effective measure of overall quality and reliability of the potable water transmission system, **Figure 7.1-8**. Please note that DPU data for this measure is not available prior to FY2017. We are performing better than the AWWA benchmark.

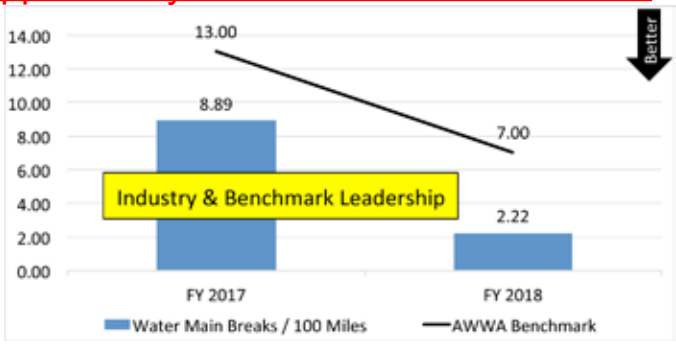


Figure 7.1-8 *Water Main Breaks per 100 Miles of Main Pipeline (Potable Transmission) (WP)*

Figure 7.1-9 Non-Potable Water Produced measures if actual non-potable water produced matches projected sales, as is the case with potable water. Projecting water demand is very complex, taking into consideration variables such as past usage, population changes, weather and conservation. An accurate forecast is a good indication that different tracking systems such as metering, are efficient and functioning well.

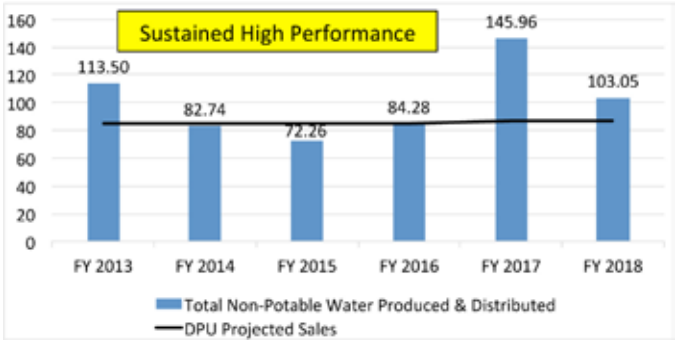


Figure 7.1-9 *Total Non-Potable Water Produced and Distributed (Million Gallons) (NP)*

The number of non-potable water main breaks per 100 miles of main pipeline is an effective measure of the overall quality and reliability of the non-potable water transmission system, **Figure 7.1-10**. DPU inherited miles of old non-standard pipelines and has been implementing pipeline replacement projects as funding has allowed. Please note that DPU data for this measure is not available prior to FY2017.

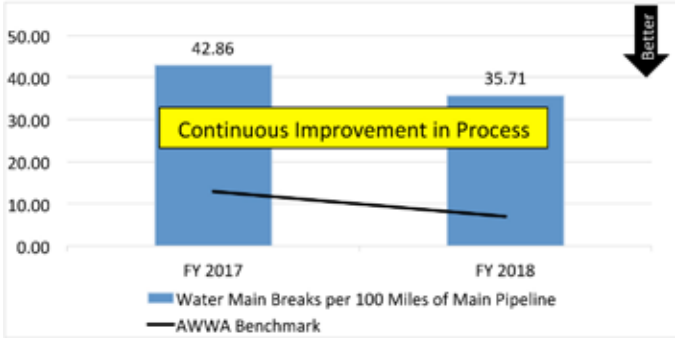


Figure 7.1-10 *Water Main Breaks per 100 Miles (NP)*

The number of water main breaks per 100 miles of main pipeline is a useful measure of the overall quality and reliability of the water distribution system, **Figure 7.1-11**.

The American Water Works Association (AWWA) recognizes that providing reliable and high-quality water services

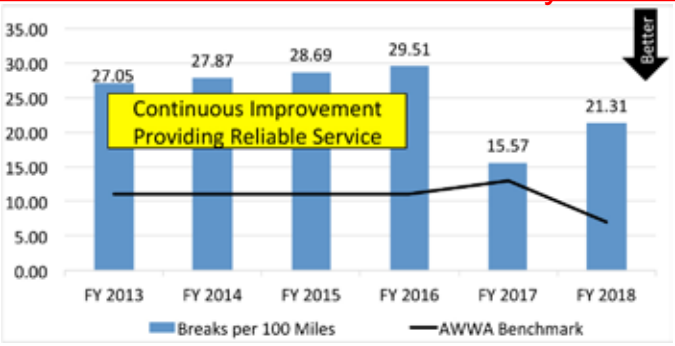


Figure 7.1-11 *Water Main Breaks per 100 Miles (WD)*

at fair and reasonable rates and charges to all customers is fundamental to a utility's mission. To be financially sustainable, DPU optimizes expenditures through operating efficiencies, implements water conservation and resource management best practices and prudently manages capital, operating and financing costs. Pricing of water services should accurately reflect the true costs of providing high-quality services to consumers to maintain infrastructure and plan for upcoming repairs, rehabilitation and replacement of that infrastructure, while also taking into consideration the median household income of the community. Pricing decisions involve considerations of equity as well as efficiency. **Figure 7.1-12** provides benchmark level performance.

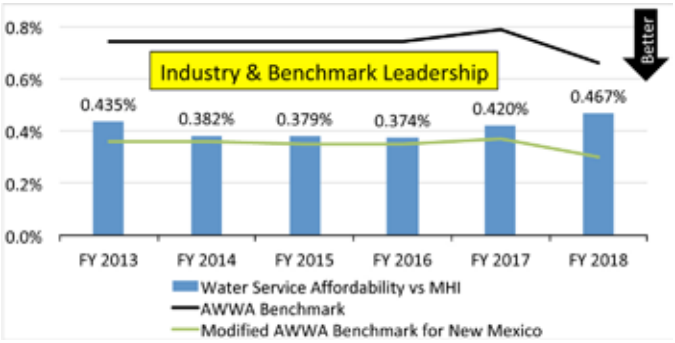


Figure 7.1-12 *Water Service Affordability (WD)*

Customer Segment: Wastewater Well-maintained infrastructure is affordable and reliable Wastewater reliability, equates to Sewer Service Affordability. **Figure 7.1-13** is cost as a percentage of median household income. When we can keep the costs to our customers lower, the more satisfied they are with our wastewater service.

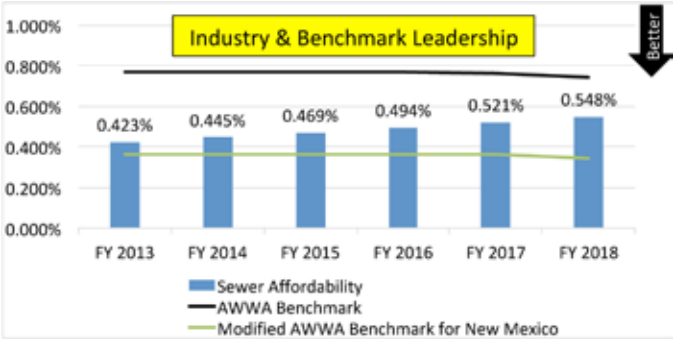


Figure 7.1-13 *Sewer Service Affordability (WC)*

7.1b Work Process Effectiveness Results

7.1b1 Process Effectiveness and Efficiency Performance measures in **7.1b1** provide results that are integrated to Strategic Objectives 1.1-1.8, in **Figure 2.1-4**.

Customer Segment: All We measure the effectiveness and efficiency of our meter installations, maintenance, programming and reading. Meters that are properly installed, functioning correctly and programmed and read accurately require fewer re-reads. Efforts to address meter issues have reduced the number of meter re-reads by about 20% since fiscal year 2016.

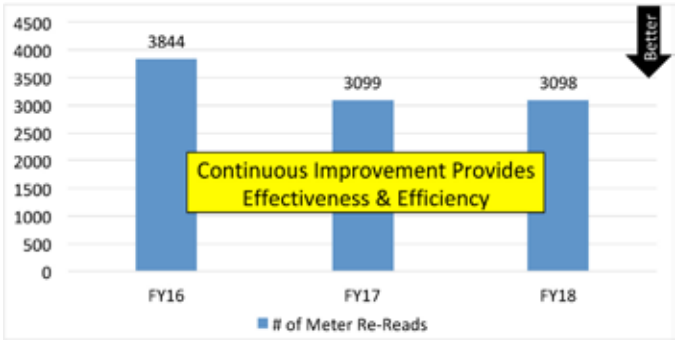


Figure 7.1-14 *Number of Meter Re-reads*

Customer Segment: Electric We measure effectiveness of electric service by the total power supply expense per MWh sold to customers in **Figure 7.1-15**. The ratio measures all power supply costs, including generation and purchased power associated with the sale of each megawatt hour. DPU has improved by 25% since CY 2013 and is outperforming the APPA top quartile for the last two years.

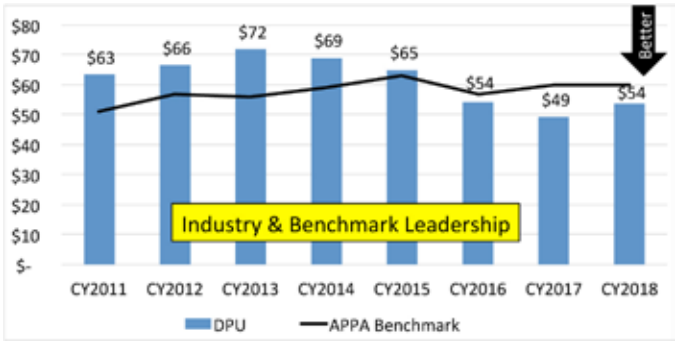


Figure 7.1-15 *Total Power Supply Expense per MWh Sold (EP)*

We also track the amount of money spent on operations and maintenance per customer in **Figure 7.1-16** to assess whether or not the electric distribution system is being maintained efficiently given the scale of the operation.

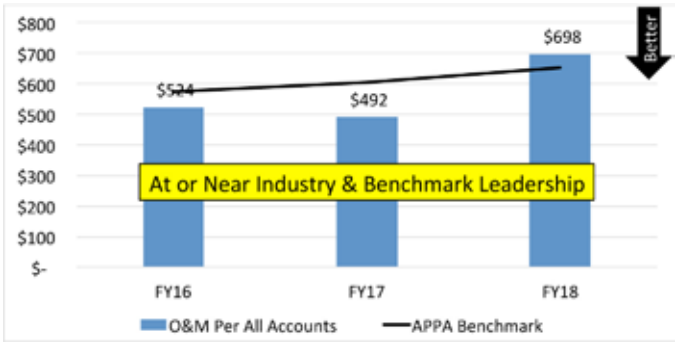


Figure 7.1-16 *O&M Expenditures per All Accounts (ED)*

Customer Segment: Gas We track the same measure for GD efficiency and effectiveness in **Figure 7.1-17**. We have improved our efficiency by 14% since FY 2013.

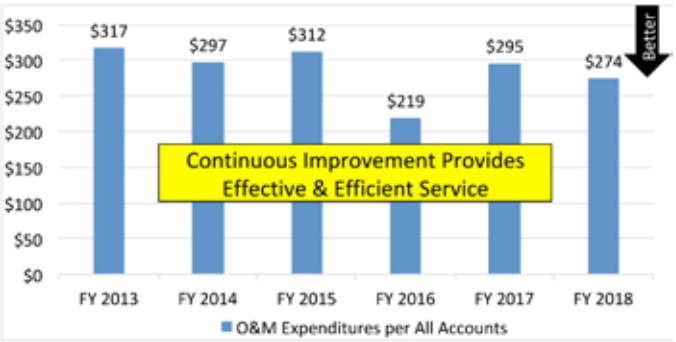


Figure 7.1-17 ***O&M Expenditures per All Accounts (GD)***

Customer Segment: Water We track O&M expenditures as a measure of water system performance efficiency and effectiveness in **Figure 7.1-18**. This tracks the amount of money spent on O&M per million gallons produced in the potable water system and assesses whether the WP system is being maintained efficiently given the scale of the operation. We have improved potable water efficiency by 62% since FY 2013 and are outperforming the AWWA benchmark.

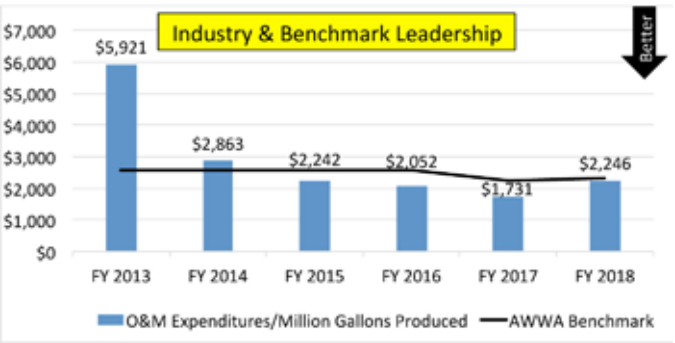


Figure 7.1-18 ***O&M Expenditures per Million Gallons Potable Water Produced (WP)***

We also track O&M Expenditures per million gallons produced for non-potable water, **Figure 7.1-19**. We have improved our non-potable water efficiency by 49%.

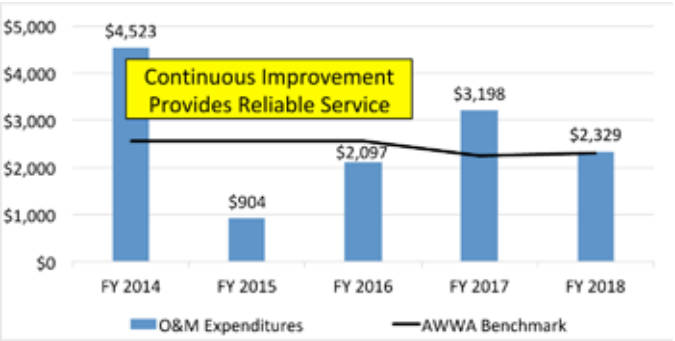


Figure 7.1-19 ***O&M Expenditures per Million Gallons of Non-Potable Water Produced and Distributed (NP)***

We are required to test drinking water lead and copper levels in individual residences where the highest lead levels are likely to be found per Environmental Protection Agency (EPA) 1991 Lead and Copper Rule. We conduct sampling on a triennial basis, but we may sample more frequently, as appropriate, to ensure high quality water. Results in **Figure 7.1-20** indicate 100% effectiveness in meeting EPA standards.

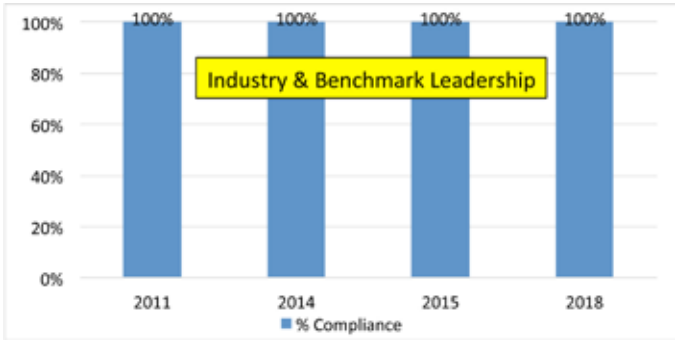


Figure 7.1-20 ***Lead and Copper Water Sampling (WD***

O&M Expenditures per 100 miles of main pipeline for WD in **Figure 7.1-21** indicates 24% improvement in efficiently maintaining our system. Given the scale of the operation we are making progress in meeting the AWWA benchmark. Water distribution is more expensive than most AWWA contributors due to our size and terrain.

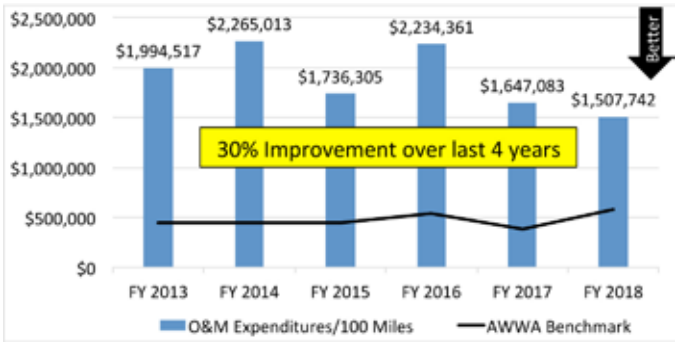


Figure 7.1-21 ***O&M Expenditures per 100 Miles of Main Pipeline (WD)***

Customer Segment: Wastewater We track sewer overflows per 100 miles of pipeline to assess effectiveness and efficiency of WC maintenance processes in **Figure 7.1-22**. We have improved our performance by 50% since FY 2013.

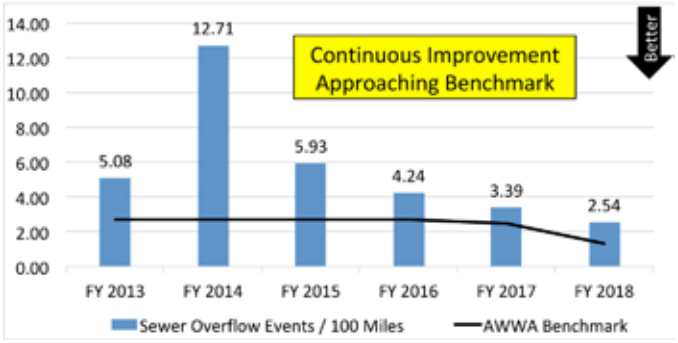


Figure 7.1-22 ***Sewer Overflow Events per 100 Miles of Main Pipeline (WC)***

We assess historical sewage conveyed and treated as a method of predicting and adequately budgeting for the treatment needs of the community. **Figure 7.1-23** measures the amount of sewage that we have conveyed and treated.

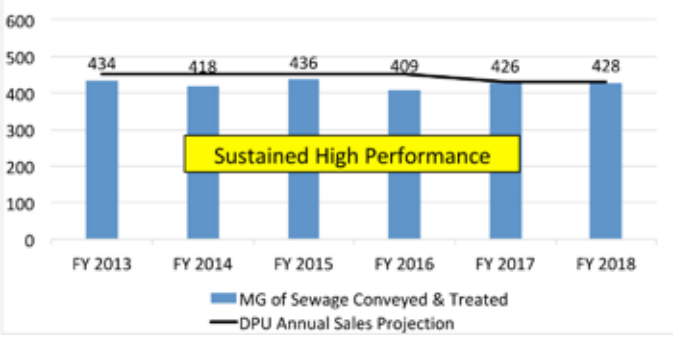


Figure 7.1-23 ***Gallons of Sewage Conveyed and Treated (WT)***

We track O&M Expenditures per 100 miles of Main Pipeline for WC on **Figure 7.1-24**. Results indicate increased expenditures due to an increased emphasis in repair & replacement in the 27 sewer lift stations. Costs per 100 miles of sewer main pipeline is going up for three reasons: 1) We are having more sewer blockages and overflow events on our canyon drop - canyon ledge pipelines, and these take a lot of time and money to resolve because of the extra caution that must be taken to safely access these areas and correct the problem. These seem to occur during the winter months when ice and snow make it extra difficult and dangerous. To address this issue in the long-term, we have programmed full replacement of every canyon drop sewer pipeline in our 10-year & 20-year CIP (AOS). 2) Our sewer lift stations are old (20 - 40 years) and many of their major high dollar components (such as pumps and control panels) have aged out and are in need of replacement. We have elected to do significant repair and replacement (R&R) on each sewer lift station through the O&M budget. We plan to have all of our older sewer lift stations fully refurbished in the time frame between FY17 and FY21 (progress AOS). 3) We inherited a sewer system from DOE that included a significant number of locations where multiple homes were served off of a single 4" clay pipeline. These small lines, usually located in backyards behind fences and vegetation, have deteriorated to the point where they are often becoming clogged with roots. Over the next three to four years these lines will be replaced with new larger lines not subject to root intrusion.

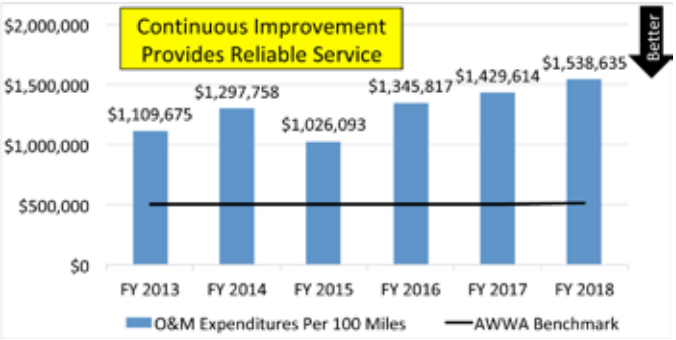


Figure 7.1-24 ***O&M Expenditures per 100 Miles of Main Pipeline (WC)***

A key performance measure of excellent customer service is abandoned call rate for CCC. In FY18, we received an increased number of abandoned calls due to staffing turnover, technical issues and two major, widespread power outages. The first outage affected 3,000 customers during work hours. Customers called the CCC to report the outage and quickly overwhelmed our staff. The second outage, Nov. 2017, affected 6,000 customers after hours. The voice mail message instructs these customers to hang up (abandon the call) and dial police dispatch to report the outage. FY18 results shows all abandoned calls, including those by instruction after hours. In the future, DPU will only track abandoned calls during hours of operation to better understand the true impact on customer service.

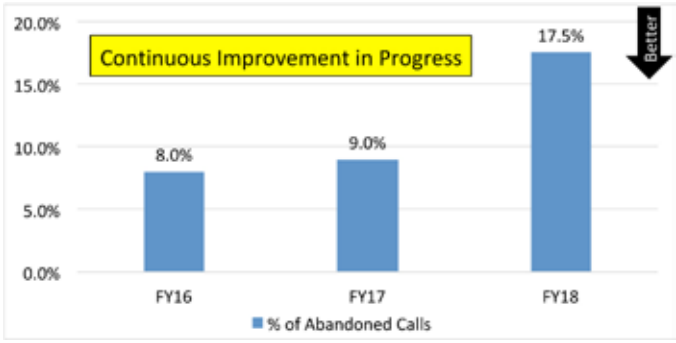


Figure 7.1-25 ***Abandoned Call Rate for All Customer Segments***

Finally, **Figure 7.1-25a** (on next page) provides nearly 80 years of innovation initiatives researched, studied and implemented by DPU. Innovation process effectiveness results are segmented by process types as shown in **Figure 6.1-2** and **Figure 6.1-3**.

7.1b2 Safety and Emergency Preparedness Performance measures in **7.1b2** provide results that are integrated to Strategic Objective 4.2 "Employees promote a culture of safe and ethical behavior."

To ensure we are prepared for emergencies, we conduct exercises. As indicated in **Figure 7.1-26**, we have met the schedule every time for fiscal years 2014-2018.

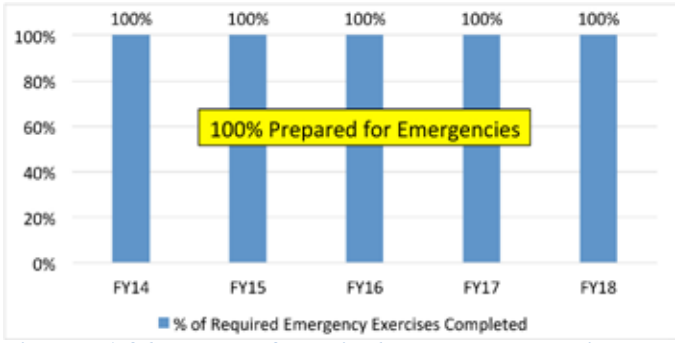


Figure 7.1-26 ***Percent of Required Emergency Exercises Completed***

We track our OSHA incident rate in **Figure 7.1-27** compared against the Bureau of Labor benchmark for public utilities. Our trend had improved from 8 incidents to under 4 per year.

Process Figures 6.1-2 & -3	Innovation	Year
NP	First in US to use effluent water to irrigate a golf course	1940s
EP	Signed ECA with DOE-DOE resulting in DPU becoming an electric producer. Construct 2 renewable energy hydroelectric plants, purchase percentage ownership in power plant, etc. Vertical integration & increase renewable energy to 20 – 28%.	1986
ED, GD	Purchase ED & GD in White Rock from Public Service Company of NM; provide savings & improve service & response time	1989
WP	Took over ownership/operation of WP for LAC from DOE; provide savings	1998
NP	Capture non-potable water from LA Reservoir and tie to the community's irrigation system to reduce amount of drinking water used for watering turf areas.	2005
EP	Create LA Green program for customers to purchase renewable energy credits to couple with electric consumption, making it green power.	2005
ED, WP, WD	Underground electric lines and improve water capacity, redundancy and fire protection	2005
WC	Use Horizontal Directional Drilling in place of open trenches for installing gravity flow WC pipes, minimizing disruption to our customers; innovative due to topography and geology (volcanic Tuff).	2005
All KWP	Develop in-house condition assessments for each utility as living documents, making staff subject matter experts vs. contracting to 3rd party; cost-savings & knowledge is retained in-house	2005-07
EP, ED	Early adopter of Interconnection-connection with Cogeneration Rule to encourage customers to add rooftop solar; compensation to customer in the form of net metering	2006
EP	Operate merchant desk services for LAC and DOE-LANL which is a cost savings to both parties.	2008
CCC	Operate Customer Care Center (from LAC); cost savings	2008
NP, WD	Initiate project at ski hill; provide enhanced fire protection by capturing snow melt near ski lodge (successfully used in 2011 fire) & allow snow making for winter season (economic development)	2009
EP	Expand merchant desk services to Sandia National Laboratory and Kirtland Air Force base; provide more efficient service and save costs	2009
All KWP	Create Asset Management Teams – a cross section of employees from different DPU divisions	2009
All KWP	Create Internship Program for student engineers; encouraging them to become interested in the utilities field while providing much needed assistance to DPU during construction season	2010
EP, ED	U.S.-Japan demonstration smart grid project demonstrates high penetration of renewable energy on a residential electric grid, using smart grid technology. Partners: DPU, NM, LANL & Japanese government	2010
ED	Assign individual journeymen linemen responsibility for specific electric distribution feeders (Circuit); assisted in improving electric reliability	2010
EP	Add low-flow turbine generator to Abiquiu plant; increase renewable EP capacity 22%. Project received $4.5 million (50% of project costs) from federal American Reinvestment & Recovery Act	2011
EP	Sign ACE MOU to maximize renewable EP at Abiquiu plant; ACE receives renewable energy from DPU & in turn adjusts water releases from dam to increase power generation.	2011
GD	Join NMMEAA for natural gas purchases to take advantage of discounts to pass to customers	2011
EP	First in NM to install PV array on a landfill; adds to renewable energy portfolio	2013
F&A	Smart meter pilot project implements virtual dynamic pricing research with Kyoto University	2013 -15
F&A, WT	Initiate composting operations on landfill: cost savings to DPU and valuable product for customer	2013
EP	BPU adopts SMT carbon neutral goal of 2040	2013
GD	Change gas rate to a pass-through rate, eliminate reserve fund; reduce the cost of gas for customers	2013
EP, ED, PR	Create ad-hoc citizen committee (FER) to engage customers to research and suggest DPU's future energy resources and define "carbon neutral"	2014
EP	Join UAMPS, 46 small public utilities members; mitigates risk, keeps projects affordable, e.g. the Carbon Free Power Project (CFPP), a first-of-a-kind Small Modular Nuclear Reactor (SMR)	2014
DPU	Include White Papers from SMT at strategic planning to address innovation & agility	2015
F&A	Implement project to leverage GIS upgrade and DPU financials related to the new ERP	2015/18
HR	Reorganize workforce for more productivity and development	2015
F&A, CCC	Deployed the Los Alamos smart mobile app for customers to manage utility accounts online	2016
WT	Special financing and ordinance to replace Wastewater Water Treatment Plant	2018
F&A, NP	Implement SCADA metering system (billing and regulatory reporting) for the non-potable water system	2018
Innovation is our Vision		

Figure 7.1-25a *Innovation Inventory*

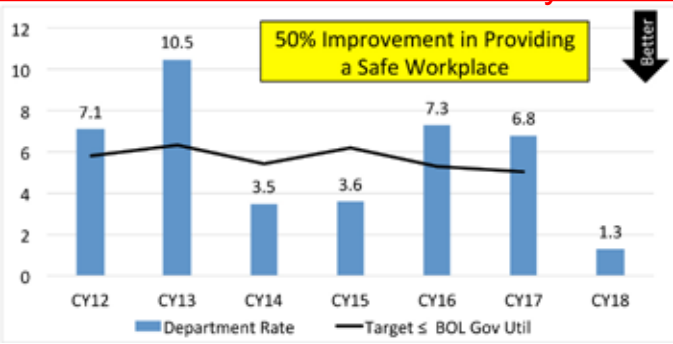


Figure 7.1-27 *OSHA Incident Rate*

7.1c Supply-Network Management Results Performance measures in **7.1c** provide results that are integrated to Strategic goal 1.0 "Provide Safe and Reliable Utility Services."

We track major supplier satisfaction in Figure 7.1-28. This measure reflects the results of a supplier survey we performed to determine our ability to meet their requirements and expectations. The specific question is based on whether their operation is improved by our partnership with them.

Figure 7.1-28 *Major Supplier Survey Satisfactions*

7.2 Customer Results All Performance measures in **7.2a** provide results that are integrated to Strategic Goal 3.0 "Customers and Community – Be a customer service oriented organization that is communicative, efficient and transparent," in Figure 2.1-4.

7.2a Customer-Focused Results

7.2a1 Customer Satisfaction Figure 7.2-1 provides results for the Average Customer Wait time on the phone in minutes in our Customer Care Center. Results indicate that improvements in the center have decreased customer wait times by over 50% and align with the customer requirement of excellent customer service.

Figure 7.2-1 *Average Customer Phone Wait Time (Minutes)*

Figure 7.2-2 Commercial Customer Satisfaction and Figure 7.2-3 Residential Customer Satisfaction contain the results of our biennial customer satisfaction survey by customer

Segment	Measure	2011	2013	2015	2017
Electric	Overall Quality	N/A	N/A	3.3	3.6
	Reliability	3	3.3	3.3	3.6
	Value	3	3.1	2.8	3.2
Gas	Overall Perf.	3.5	3.6	3.4	3.6
	Reliability	N/A	N/A	3.4	3.7
	Value	N/A	N/A	2.9	3.2
Water	Overall Perf.	3.5	3.5	3.4	3.6
	Reliability	N/A	N/A	3.4	3.6
	Value	N/A	N/A	2.9	3.1
Wastewater	Overall Perf.	3.5	3.5	3.3	3.6
	Reliability	N/A	N/A	3.4	3.6
	Value	N/A	N/A	2.8	3.2
Overall	Overall Perf.	N/A	N/A	3.4	3.4
	Billing Accuracy	3.3	3.3	3.2	3.2
Field Crews	Courtesy	3.9	3.6	3.6	3.7
	Knowledge	3.5	3.4	3.6	3.4
	Able to Resolve	3.3	3.3	3.6	3.4
CCC	Courtesy	3.6	3.6	3.7	3.4
	Knowledge	3.4	3.2	3.2	3.2
	Able to Resolve	N/A	N/A	3.1	3.1
Goal is 3.5 or Higher					
Approaching Goal – "Good" Rating 3.0-3.4					
Sustained Excellent Commercial Customer Service					

Figure 7.2-2 *Customer Satisfaction (Commercial)*

Segment	Measure	2011	2013	2015	2017
Electric	Overall Quality	N/A	N/A	3.5	3.4
	Reliability	3.1	3.3	3.4	3.4
	Value	3.1	3.1	3	2.9
Gas	Overall Perf.	3.6	3.6	3.6	3.5
	Reliability	N/A	N/A	3.6	3.5
	Value	N/A	N/A	3	3
Water	Overall Perf.	3.5	3.6	3.6	3.4
	Reliability	N/A	N/A	3.6	3.5
	Value	N/A	N/A	3	2.9
Wastewater	Overall Perf.	3.5	3.5	3.5	3.4
	Reliability	N/A	N/A	3.6	3.5
	Value	N/A	N/A	2.9	2.9
Overall	Overall Perf.	3.3	3.4	3.3	3.3
	Billing Accuracy	3.3	3.3	3.3	3.2
Field Crews	Courtesy	3.7	3.6	3.6	3.5
	Knowledge	3.6	3.5	3.6	3.5
	Able to Resolve	3.5	3.3	3.5	3.3
CCC	Courtesy	3.5	3.5	3.5	3.3
	Knowledge	3.2	3.4	3.3	3.1
	Able to Resolve	N/A	N/A	3.2	3.0
Goal is 3.5 or Higher					
Approaching Goal – "Good" Rating 3.0-3.4					
Sustained Excellent Residential Customer Service					

Figure 7.2-3 *Customer Satisfaction (Residential)*

segment. Results indicate consistent levels of customer satisfaction within all segments which supports our core competency of "Building Customer and Partner Relations." Results for the value questions that are below 3.0 are being addressed through improvement efforts to communicate the value of the services we provide in bill inserts and community outreach. The survey uses a 1- 4 point scale.

7.2a2 Customer Engagement Public communications (Press Releases, Bill Inserts, Advertisements, Radio Interviews, Reports and Public Meetings), Figure 7.2-4, are an important means of maintaining and improving customer engagement. This improves the value that our customers feel about the services we provide. We have increased numbers of communications by over 25% since CY 2014.

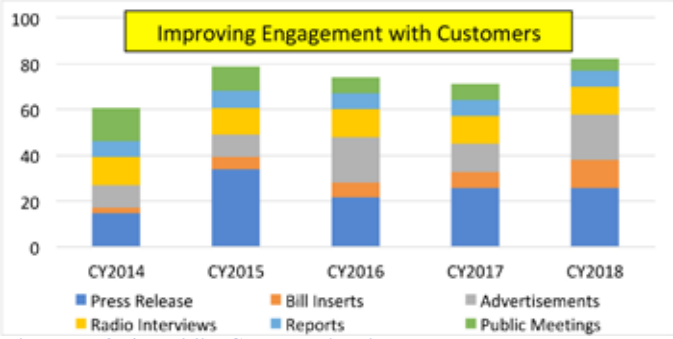


Figure 7.2-4 *Public Communications*

We actively engage our customers through social media. We have doubled our engagement since FY16 well above our target to be equal to or above the previous year.

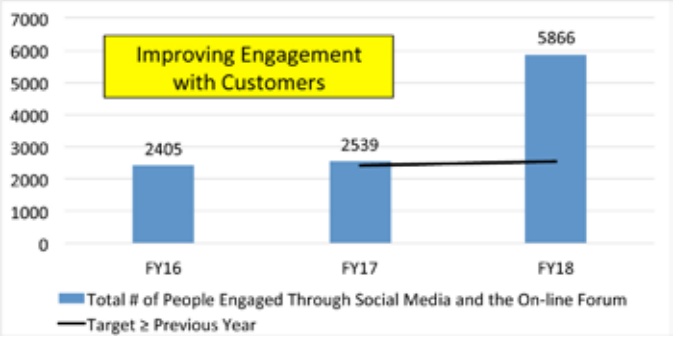


Figure 7.2-5 *Social Media Engagement and Online Forum Posts*

Figure 7.2-6 Net Promoter Score, which we began tracking in FY 2015, provides results for the "likely to recommend" question for our commercial customer segment on the customer survey. Our results indicate excellent improvement with our commercial customer segment.

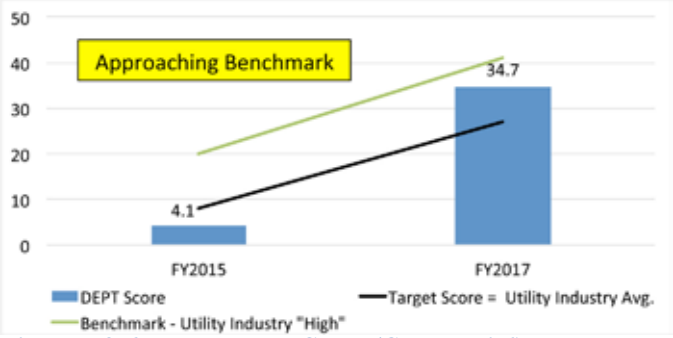


Figure 7.2-6 *Net Promoter Score (Commercial)*

Figure 7.2-7 Residential Net Promoter Score provides results for the "likely to recommend" question for our residential customer segment on the customer survey. Expanding AMI to more residential customers will positively impact NPS results in the near future; further gains in longer-term clean energy sources endorsed by our residents should also improve NPS results.

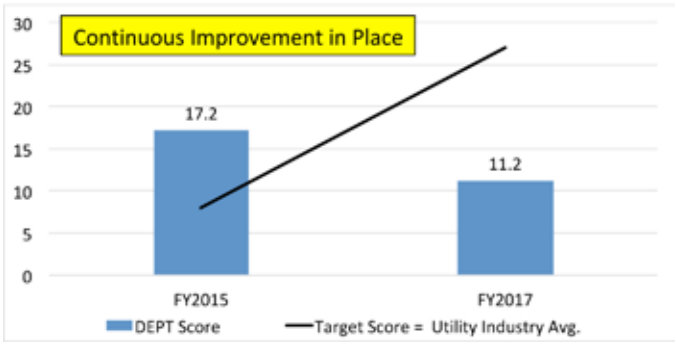


Figure 7.2-7 *Overall Net Promoter Score (Residential)*

Figure 7.2-8 Our overall communication score indicates our ability to communicate with our residential and commercial customers. These results come from the biennial customer survey.

Segment	2011	2013	2015	2017
Commercial	3.1	3.1	3.1	3.3
Residential	3	3.1	3	3.1
Goal: 3.5 or Higher (4 point scale)				
Approaching Goal – "Good" Rating 3.0-3.4				
Continuous Improvement Provides Reliable Service				

Figure 7.2-8 *Overall Communications (Commercial & Residential)*

Finally, we generate revenue for our 'customer' LAC through franchise fees and payments in lieu of taxes.

	FY2014	FY2015	FY2016	FY2017	FY2018
Revenue	$1.4M	$1.4M	$1.6M	$1.5M	$1.5M
Consistent Funding for County Operations					

Figure 7.2-9 *Annual Revenue for LAC (in round numbers)*

7.3 Workforce Results

7.3a Workforce-Focused Results

7.3a1 Workforce Capability and Capacity Performance measures in **7.3a1** provide results that are integrated to Strategic Goals 1.0 "Provide Safe and Reliable Utility Services" and 4.0 "Sustain a capable, satisfied, engaged, ethical and safe work environment," in Figure 2.1-4.

To ensure we have the appropriate skills, we measure results for training hours from LITMOS are included in Figure 7.3-1a. We are in the early stages of using this system, but it gives us a method to track each division's capability and capacity. We have made significant progress in training our workforce and increasing our capability and capacity. This result supports our core competency of Employee Development (Figure P.1-2).

Segment	# of Classes Completed – Tracked in LITMOS	# of Hours Spent on Training – Tracked on Dashboards
	Apr 2018 – Apr 2019	FY2018
Admin/Eng	296	Not Tracked
Electric	374	840
GWS	525	1,536
Water Prod.	238	144
WWTP	90	287
Department Total	1,523	2,807
Continuous Improvement in Training our Workforce		

Figure 7.3-1a *Training Hours & Classes*

We track capability and capacity through competencies and/or certifications required as part of employee job requirements in **Figure 7.3-1b**. Green shading indicates we meet the base requirement and blue shading indicates benchmark performance.

Competency/ Certification or Equiv.	Base Reqd.	# Certified	% Base Requirement
Balancing & Inter. Cert.	2	2	100%
CPA, CFE, CGFM	0	1	N/A
Cross Connect/Backflow Prev. Cert.	7	7	100%
Engineering in Training Cert.	0	1	N/A
Journeyman Elect. Lic.	9	9	100%
Journeyman Gas Fitters Lic.	9	9	100%
License EL-1J	0	1	N/A
Plastic Weld or Pipe Fusion Cert.	15	15	100%
PM Professional Cert.	0	1	N/A
Registered P.E.	4	5	125%
Transmission Op. Cert.	6	6	100%
Wastewater Sys. I Cert.	6	7	117%
Wastewater Sys. II Cert.	9	9	100%
Wastewater Sys. IV Cert.	4	4	100%
Water Sys. I Cert.	9	9	100%
Water Sys. II Cert.	10	11	110%
Water Sys. IV Cert.	6	6	100%
TOTAL	**96**	**103**	**107%**
Exceeding WF Capability & Capacity Requirements			

Figure 7.3-1b *Competency Levels & Compliance with Certification/License Training Requirements*

DPU conducts a comprehensive biennial employee survey to measure changes over time regarding WF climate and employee engagement and satisfaction. In 2016, DPU began using Gallup Q12 to measure WF engagement, which consists of actionable workplace elements with proven links to performance outcomes. Percentile results are included in **Figure 7.3-2**. We are improving and performing higher than the range for "Good" for Gallup and Public Administration.

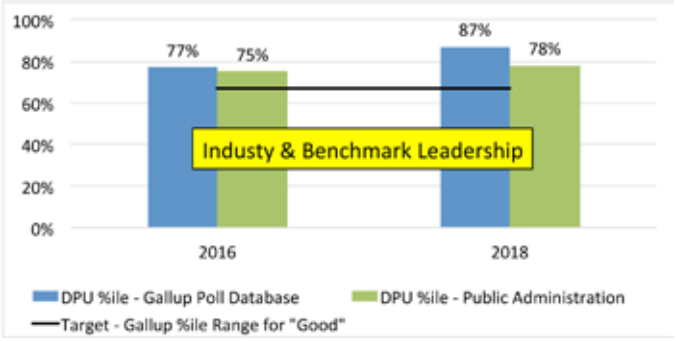


Figure 7.3-2 *Materials and Equipment to Do My Work Right*

We also track Employee Length of Service in **Figure 7.3-3a** to assess WF capability and capacity. This result provides us with a look at the maturity of the WF and our ability to retain WF knowledge. Our objective is to have at least 50% of the WF with at least seven years length of service as this indicates, not only their knowledge but their loyalty to DPU.

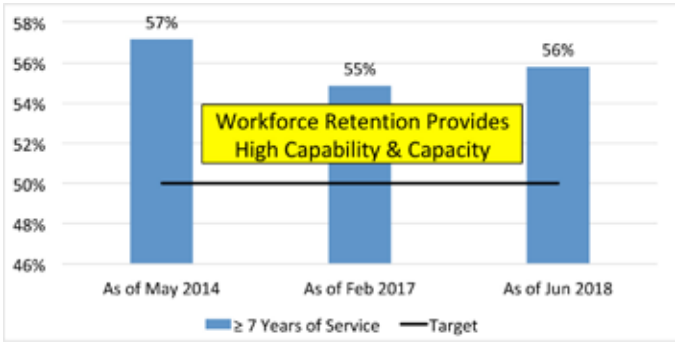


Figure 7.3-3a *Workforce Length of Service*

Segment	# of Positions	%
Admin/Eng		
FY16	28	100%
FY17	24	100%
FY18	24	100%
Electric		
FY16	25	100%
FY17	25	100%
FY18	25	100%
GWS		
FY16	19.75	100%
FY17	25.75	100%
FY18	25.75	100%
Water Prod.		
FY16	10.25	100%
FY17	9.25	100%
FY18	9.25	100%
WWTP		
FY16	9	100%
FY17	9	100%
FY18	9	100%
Department Total		
FY16	92	100%
FY17	93	100%
FY18	93	100%
100% Capable Employees		

Figure 7.3-3b *Percent of Employees Possessing Required Professional Credentials*

We screen new-hires using our rigorous new-hire screening process to ensure that every employee possesses the minimum credentials for their positions. Results in **Figure 7.3-3b** indicate that we have met all minimum requirements for every new member of our workforce.

7.3a2 Workforce Climate

Performance measures in **7.3a2** provide results that are integrated to Strategic Goal 4.5, "Sustain a capable, satisfied, engaged, ethical and safe WF focused on customer service" **Figure 2.2-2**.

We track involuntary separations as an indicator of our workforce climate (Integrity and ethics). Involuntary turnover (Figure 7.3-4) results when an employee is not a good fit for our organization and culture. If our HR processes are well designed and executed, involuntary separations should be very low. Results are outstanding and in three of the six years presented we had zero involuntary separations. We compare favorably to LAC.

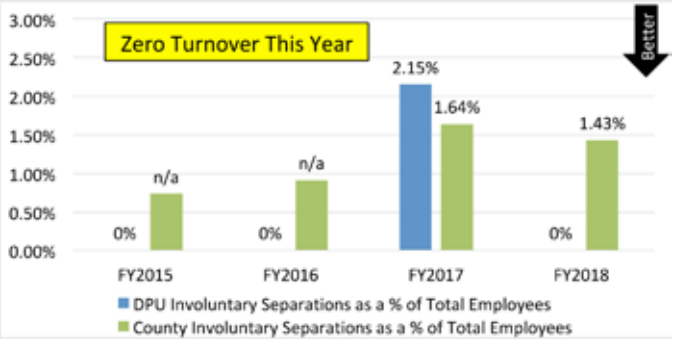


Figure 7.3-4 ***Comparative Turnover rate (% of Involuntary Separations)***

We track performance for the workforce requirement of job satisfaction using the Gallup survey. Employees are asked, on a scale of 1-5, "How Satisfied are you with your organization as a place to work?" Figure 7.3-5 shows results for overall workforce satisfaction. We are approaching the top quartile for Public Administration. Our Utilities Manager had held employee focus group meetings to address overall workforce satisfaction.

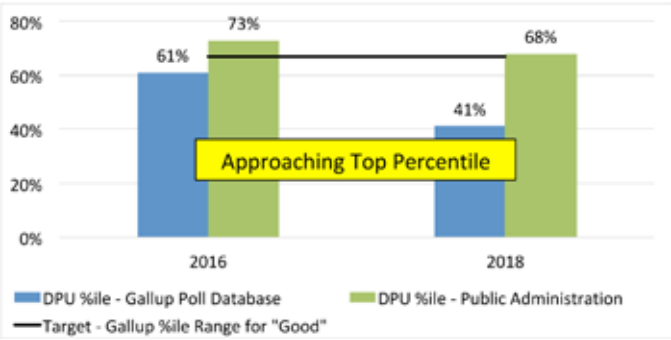


Figure 7.3-5 ***Overall Satisfaction***

Employees' response to the question from the Gallup survey they "have the opportunity to do what they do best everyday" (Figure 7.3-6), indicates top quartile results. This provides results for the workforce's key requirement of accountability.

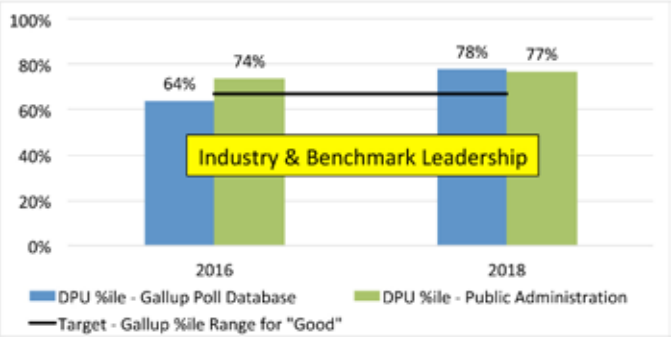


Figure 7.3-6 ***"I have the opportunity to do what I do best every day."***

A workforce key requirement is good pay and benefits. The DPU Senior Management Team believes that the generous sick and annual leave benefits offered by Los Alamos County help employees achieve a positive work/life balance and helps retain valuable employees. Unusual trends in department-wide average leave balances could be indicators of possible cultural problems where a work/life balance is not valued or encouraged. Maintaining an adequate leave balance is a great way for employees to protect themselves in the event of unforeseen emergencies or to prepare for retirement. Because employees can use sick leave to extend their retirement date, it is not unusual to see high leave balances. Many of our employees take advantage of this generous benefit. Results in Figure 7.3-7 indicate that our workforce has effective work/life balance.

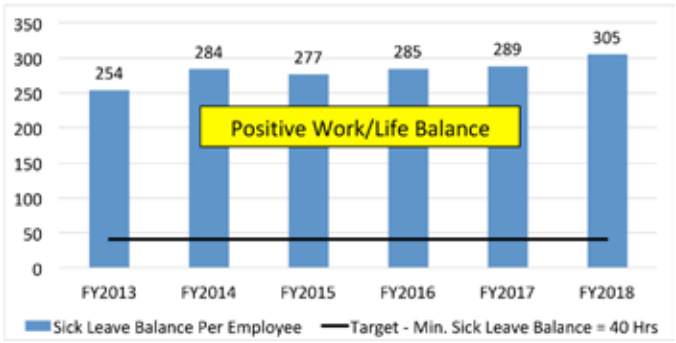


Figure 7.3-7 ***Sick Leave Balances***

7.3a3 Workforce Engagement Performance measures in **7.3a3** provide results that are integrated to Strategic Objective 4.3, "Employees are engaged, satisfied and fairly compensated," in Figure 2.1-4.

There was no engagement scoring prior to the 2016 survey when we began using the Gallup survey. Employees were asked general engagement questions, but no quantifiable score was ever calculated. Our results for Workforce engagement in Figure 7.3-8 show we have made progress and are approaching the top quartile.

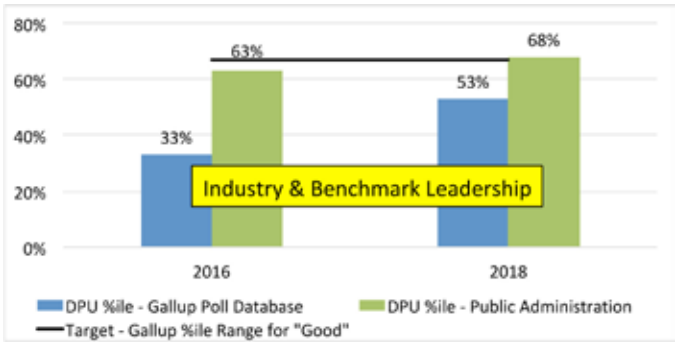


Figure 7.3-8 ***Employee Engagement***

Employees want to feel supported as mentioned in Figure P.1-6. We measure that key requirement by asking the "my opinion seems to count" question, Figure 7.3-9. We are improving and approaching the top quartile.

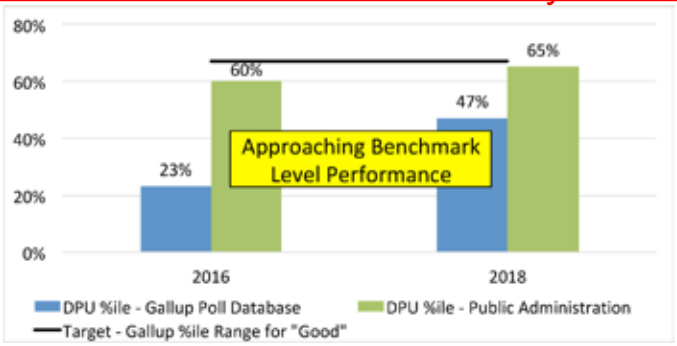


Figure 7.3-9 *"My opinion seems to count."*

7.3a4 Workforce Development Performance measures in **7.3a4** provide results that are integrated to Strategic Objective 4.1, "Leaders invest in employee training and professional development," in **Figure 2.1-4**.

Along with the results in **Figures 7.3-1a** and **7.3-1b**, we measure the effectiveness of our workforce development by the number of leaders and potential leaders (14% over the last four years) who have attended the Los Alamos County Academy (**Figure 7.3-10**). The Academy's objectives for participants are to: develop networks between the departments, develop supervisory and leadership knowledge and skills and develop presentation skills to be more effective communicators.

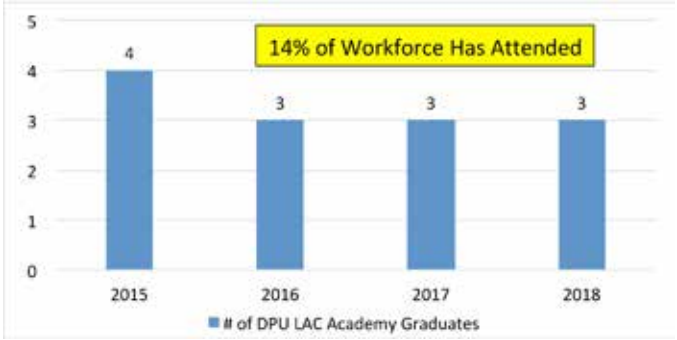


Figure 7.3-10 *Employees Who Have Completed Los Alamos County Academy*

Figure 7.3-11 provides the results that employees feel that we care about their career development and in 2018 we achieved top percentile performance.

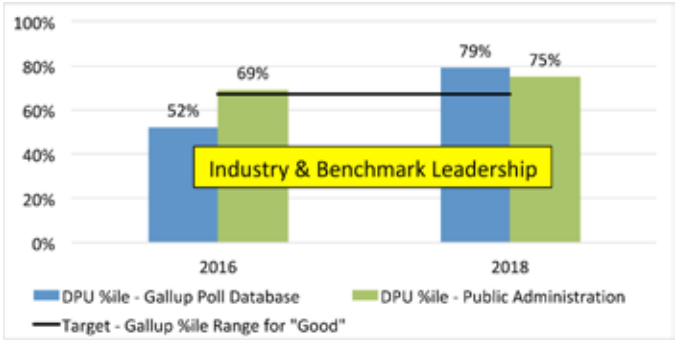


Figure 7.3-11 *"Someone at work encourages my development."*

Another way to measure effectiveness of learning and development is communicating and discussing employees' performance and development progress. Results in **Figure 7.3-12** indicate top percentile performance in 2018.

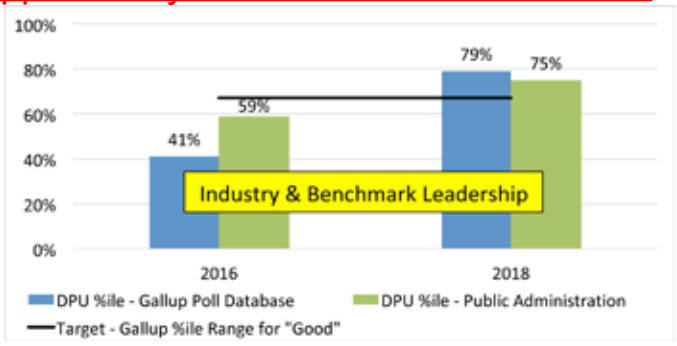


Figure 7.3-12 *"Someone at work has talked to me about my progress."*

7.4 Leadership and Governance Results Performance measures in **7.4** provide results that are integrated to all strategic goals in **Figure 2.1-4**.

7.4a Leadership, Governance and Societal Contribution Results

7.4a1 Leadership Employees indicated that senior leaders communicate and engage the workforce in DPU's vision and values to create action. Results from the employee survey are included in **Figure 7.4-1** "I know what is expected of me at work," and **Figure 7.4-2** "I have received recognition." Results for **Figure 7.4-1** were in the top third percentile of the Gallup poll data and Public Administration data.

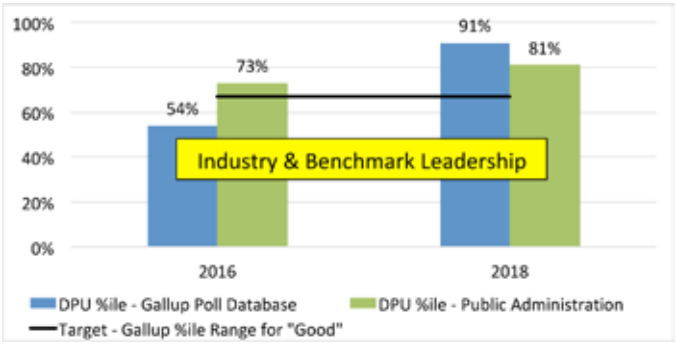


Figure 7.4-1 *"I know what is expected of me at work."*

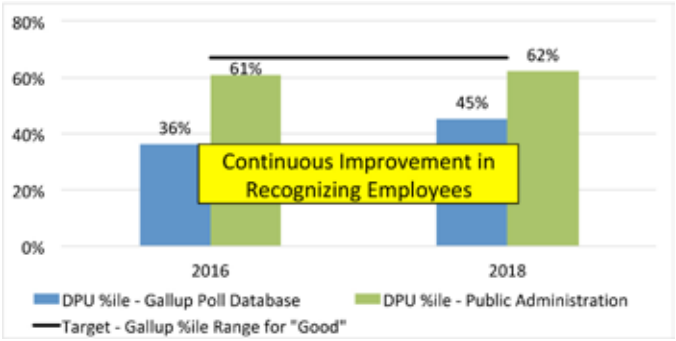


Figure 7.4-2 *"I have received recognition in the last seven days."*

Figure 7.4-3 indicates that MVV makes employees feel their job is important. This indicates the integration of the SMT's Mission to engage the workforce is aligned to their jobs and what they come to work for every day.

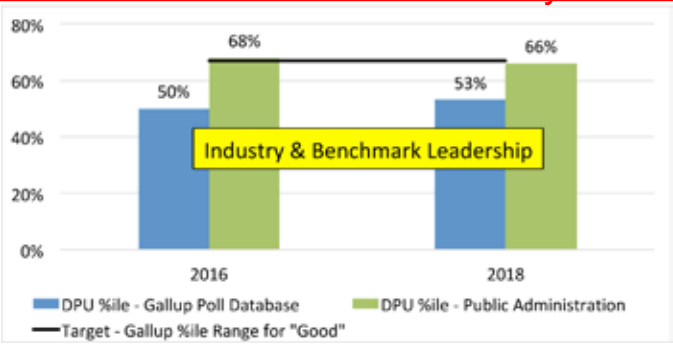


Figure 7.4-3 ***"My job is important in meeting DPU's mission and vision."***

Year	Method	# Apply	Board Composition
2012	1 Newspaper Ad	1	5 men
2013	1 Newspaper Ad	2	5 men
2014	Enhanced	8	5 men
2015	Enhanced	4	5 men
2016	Enhanced	3	4 men, 1 woman
2017	Enhanced	5	3 men, 2 women
2018	Enhanced	5	3 men, 2 women
BPU Diversity Improved			

Figure 7.4-4b ***Governance: Board Diversity***

7.4a2 Governance Key results for our governance system are shown in Figure 7.4-4a. These results demonstrate sustained high performance in key elements of governance such as accountability, independence, transparency, etc.
BPU diversity provides accountability, protection of SHs and balancing value throughout our operations as indicated in Figure 7.4-4b. Our enhanced recruiting process has resulted in more applicants and board diversity, with 2016 marking the first appointment of a women to serve on our board in over a decade. Other diversity results AOS. Selection of board members is done through recruitment, interviewing and appointment by Council. In 2014 DPU enhanced the recruitment process to include a brochure, ads, press releases, social media and flyers posted in libraries and stores, etc. These enhanced approaches have resulted in more applicants and better diversity that reflects our communities.

Key Aspects	Approaches	FY16	FY17	FY18
Accountability for Strategy & SL Actions	Strategic goals are reviewed annually by BPU	Yes	Yes	Yes
	SLs incorporate feedback received from WF & stakeholders in setting SP goals. Examples of feedback include customer surveys & Council input	Yes	Yes	Yes
	Goals are cascaded to WF through PPAs	Yes	Yes	Yes
	Annual goals are monitored throughout the year	Yes	Yes	Yes
	Annual goals are measured & included in performance reviews. Accomplishments are included in quarterly & Annual reports to BPU	Yes	Yes	Yes
Fiscal Accountability	Annual Budget is approved by the BPU & posted online	Yes	Yes	Yes
	Monthly financial activity & budget performance is reported to the BPU quarterly	Yes	Yes	Yes
	See Figure 7.4-7(Legal & Regulatory Compliance & Risk) for Audits, Internal Controls & Loan Covenants results	Yes	Yes	Yes
	Financial policies adopted by BPU	Yes	Yes	Yes
	LAC Procurement Regulations followed	Yes	Yes	Yes
Independence & Effectiveness & Audits	An annual third-party financial audit is performed by an independent CPA firm.	Yes	Yes	Yes
	The CAFR is submitted to the State & available online	Yes	Yes	Yes
Transparency in Operations	Customers have online access to their accounts	Yes	Yes	Yes
	PR is dedicated to disseminating & sharing information with customers. Tools incl: Website, Intranet, Bill inserts, social media posts & media stories, door hangers	Yes	Yes	Yes
	Monthly BPU meetings are open to the public & meeting minutes are published	Yes	Yes	Yes
	Biennial customer survey results reviewed by SLs collectively to identify opportunities for improvement	Yes	Yes	Yes
	Policies & SOPs are accessible to WF	Yes	Yes	Yes
	Performance metrics are tracked daily & monthly, & quarterly, KPMs used by AMTs & WF	Yes	Yes	Yes
	Key Account meeting with customers	Yes	Yes	Yes
Selection of Governance BPU Members	Members of the BPU are appointed to staggered 5-year term	Yes	Yes	Yes
	BPU & UM must file Conflict of Interest statements annually	Yes	Yes	Yes
Protection of Stakeholders & Rate Payers	BPU Meetings are open to the public & require a quorum to adopt a rate ordinance	Yes	Yes	Yes
	Rate studies are performed	Yes	Yes	Yes
	WF Ethics Training, robust Job Training & Safety Culture	Yes	Yes	Yes
	We listen to our SHs through various listening posts & community outreach (Figure 3.1-2)	Yes	Yes	Yes
Succession Planning for Senior Leaders	UM reviews critical task matrix with direct reports	Yes	Yes	Yes
	Deputy Director positions were created to support continuity of operations	Yes	Yes	Yes
	Policies & SOP's are in place to provide guidance to WF	Yes	Yes	Yes
Full Compliance with All Key Aspects of Governance				

Figure 7.4-4a ***Governance System***

7.4a3 Law and Regulation Results for meeting or surpassing legal and regulatory requirements in water treatment are included in Figure 7.4-5. Drinking water compliance is measured by the number of days in full regulatory compliance as a percent of all days for the potable water system. DPU has historically performed very well in this area with 100% compliance with regulatory requirements.

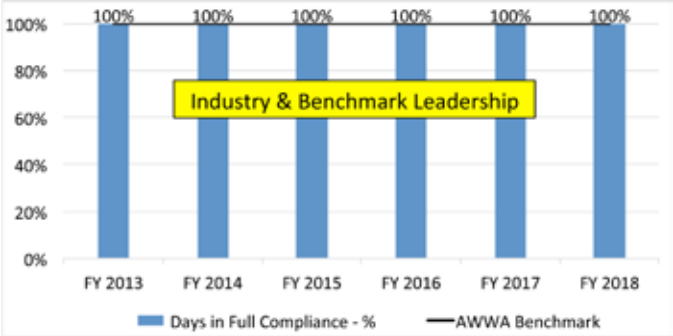


Figure 7.4-5 *Drinking Water Compliance*

Figure 7.4-6 provides WWTP Regulatory Compliance results. This measure is defined as the number of permit parameter test results found in compliance as a percent of all permit parameter tests required. There are between 50 and 55 permit parameter tests required each month at each WWTP. An example of a permit parameter test is the requirement that the daily pH is between 6.6 and 9.0.

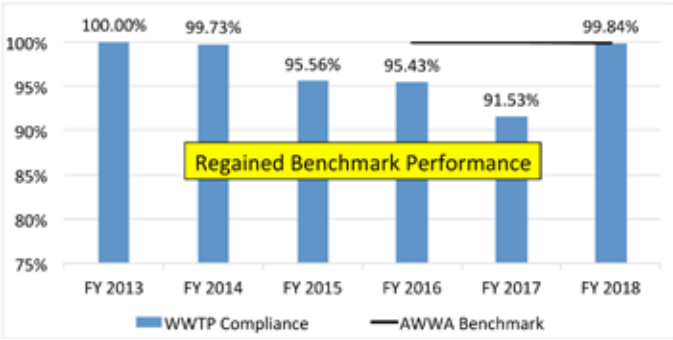


Figure 7.4-6 *WWTP Compliance*

Figure 7.4-7 indicates results from the legal and regulatory table in Figure 1.2-4. DPU meets and exceeds all legal and regulatory requirements. The column titled KM or Key Measure represents how the legal or regulatory process compliance is determined.

Area Reg/ Legal	Key Process	Authority	KM	Goal	FY 16	FY 17	FY 18
R: Finance	Audits	NMOSA	F	NV	NV	NV	NV
R: Finance	Internal Controls	DPU	V	NV	NV	NV	NV
R: Finance	Loan Covenants	Bond Trustee	V	NV	NV	NV	NV
L: EP	IRP	PUP	C	NV	NV	NV	NV
L: WP	Dam inspection	NMOSE	F	NV	NV	NV	NV
L: Gas	Leak Survey	NMPRC	T/C	NV	NV	NV	NV
L: WW TP	Discharge Monitoring	NMED	A/V	NV	NV	NV	NV
L: DPU	Safety	NM OSHA	V	NV	NV	NV	NV

A=Accurate, C=Complete, F=Findings, V=Violation, T=on-time; Goal: NV=No Violations; PUP=Prudent Utility Practice

Sustained High Performance For All Legal Compliance Processes

Figure 7.4-7 *Legal and Regulatory Compliance and Risk*

Safe Drinking water is a given to our customer but DPU is required to provide results to the public via the Consumer Confidence Report (Public Notification Compliance). Figure 7.4-8 indicates that we have met all publication requirements.

Fiscal Year	Report Issued for Calendar Year	# of Violations
FY2014	2013	0
FY2015	2014	0
FY2016	2015	0
FY2017	2016	0
FY2018	2017	0

Sustained Excellence Provides Safe Water

Figure 7.4-8 *Safe Drinking Water – Consumer Confidence Report Compliance*

7.4a4 Ethics Figure 7.4-9 provides results of WF training on the code of ethics in all-hands meetings, conflict of interest and ethical considerations of SH, partners and suppliers.

Ethics Area	Key Process	Au-thority	KM	Goal	FY 16	FY 17	FY 18
WF Ethics	Code of Ethics	Code	Tr	100%	100%	100%	100%
CI	Governance	LAC	A/C	100%	100%	100%	100%
SH, PS	Contracts	LAC	A/C	NV	NV	NV	NV

A=Accurate, C=Complete, Tr=Trained, CI=Conflict of Interest SH=Stakeholders, PS=Partners & Suppliers; Goal: NV=No Violations

Sustained High Performance for Ethics

Figure 7.4-9 *Code of Ethics Training*

7.4a5 Society We have implemented processes to increase the amount of renewable energy (RE) consumed. DPU far exceeds the renewable energy consumption of the state New Mexico as a whole as depicted in Figure 7.4-10.

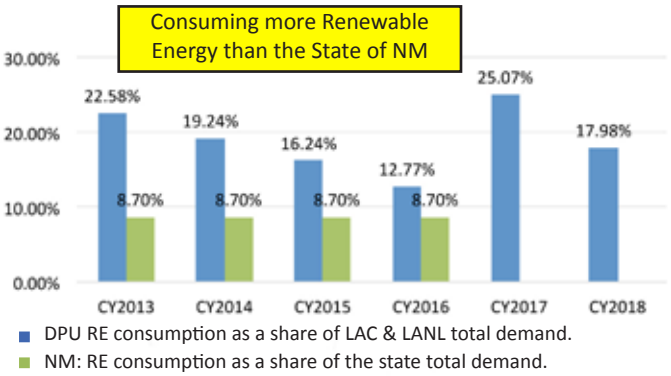


Figure 7.4-10 *Percent of Power Derived from Renewable Energy*

We also perform better than our conservation goal for gas therms per heating degree day (Figure 7.4-11).

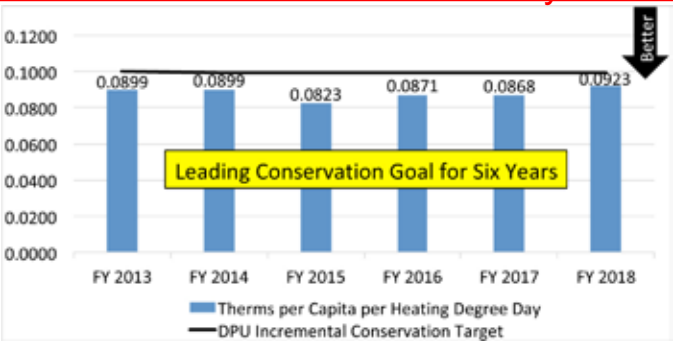


Figure 7.4-11 ***Gas Therms per Capita per Heating Degree Day***

To monitor progress in water conservation, we track the gallons per capita of Non-Potable water, **Figure 7.4-12** and Potable Water, **Figure 7.4-13** produced daily.

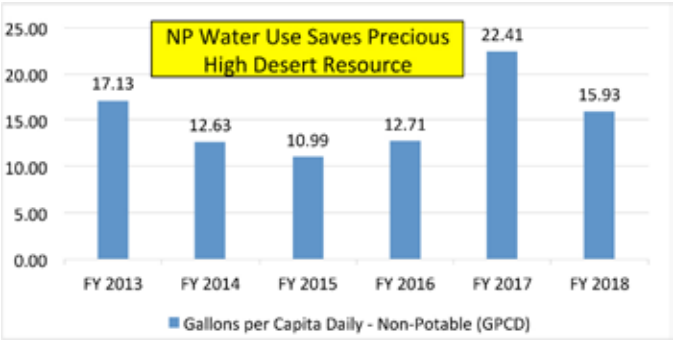


Figure 7.4-12 ***Gallons per Capita Daily of Non-Potable Water***

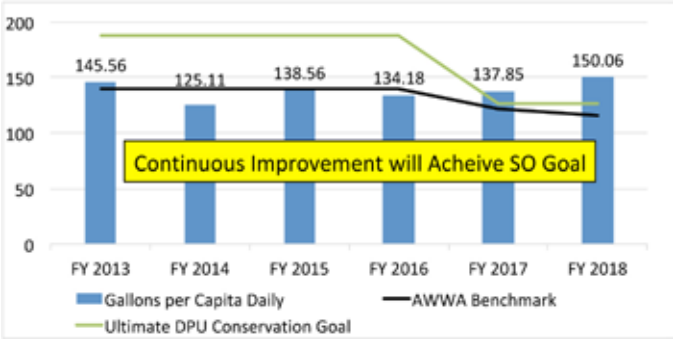


Figure 7.4-13 ***Gallons per Capita Daily of Potable Water***

We track our use of reclaimed wastewater (**Figure 7.4-14**) and have improved usage greater than 50% since 2013. Reclamation is part of meeting our long-term water conservation goals.

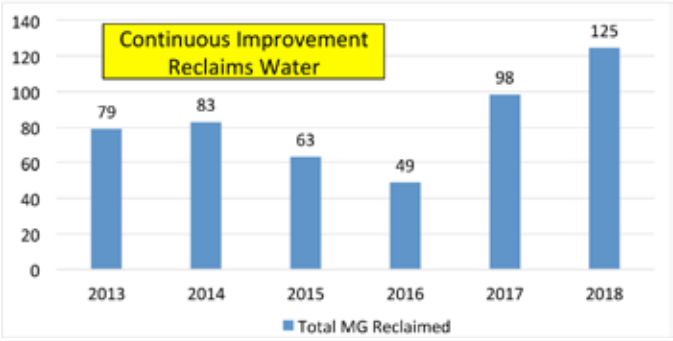


Figure 7.4-14 ***Wastewater Treatment Reclaimed Water Use***

We measure the disposition of biosolids by tracking the tons of compost produced in our WT process in **Figure 7.4-15**.

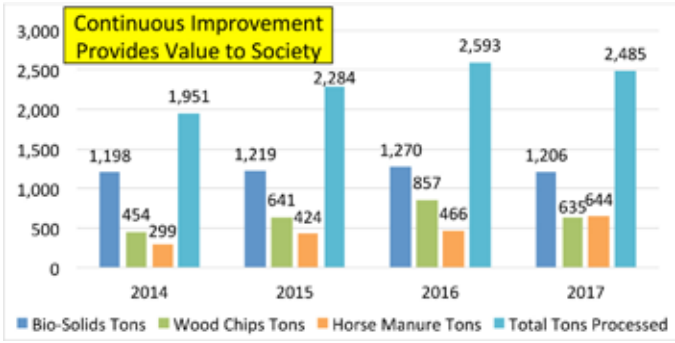


Figure 7.4-15 ***Wastewater Treatment Tons of Compost Processed***

Supporting our key communities includes education outreach. We track engagement, **Figure 7.4-16**, by the number of our customers who participate at our community environmental education events on conservation, classroom participation and hands-on demonstrations at Pajarito Environmental Education Center (PEEC).

Period	Amount of $ Spent on Conservation Public Outreach	Hours Spent on Conservation Public Outreach	# of Students Who Received Cons. Ed. in Classroom	# of People Participated in DPU Conservation Demos	Total # of Connections Made by the Conservation Program
2013	$ 18,490.00	553	1,651	250	1,651
2014	$ 20,071.00	532	3,322	422	2,900
2015	$ 28,120.00	409	2,512	1,088	3,600
2016	$ 35,720.00	644	1,995	1,200	3,900
2017	$ 40,257.00	675	2,865	1,470	4,335
2018	$ 46,539.58	785	2,872	1,346	4,218
Sustained Improvement in Society Outreach Increases Conservation Awareness					

Figure 7.4-16 ***PEEC Participation***

7.5 Financial, Market and Strategy Results

7.5a Financial and Market Results

7.5a1 Financial Performance Results included for financial performance tie directly to the Customer Value (**Figure P.1-2**) by being service oriented and fiscally responsible and Strategic Goal 2.0 Achieve and Maintain Financial Excellence (**Figure 2.1-4**). We track the annual budget target versus expenditures for DPU in **Figure 7.5-1** and then each division in **Figure**

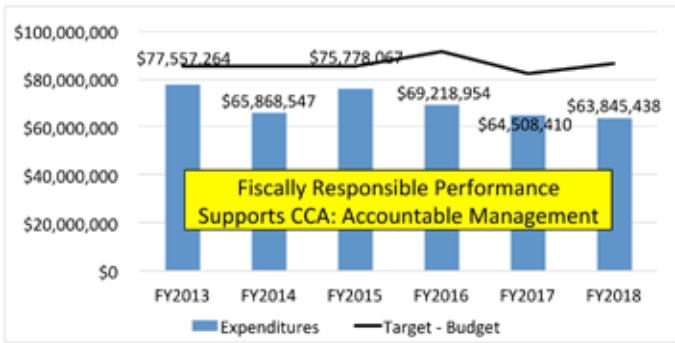


Figure 7.5-1 ***DPU Total Budget Performance***

7.5-2 through Figure 7.5-7. Some of the unexpended WP budget is due to deferment of major CIP projects, a result of factors outside the control of DPU. Results indicate positive performance and trends in budgetary performance.

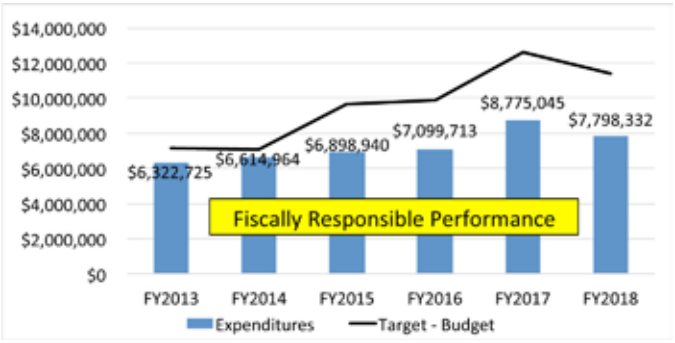


Figure 7.5-2 *ED Budget Performance*

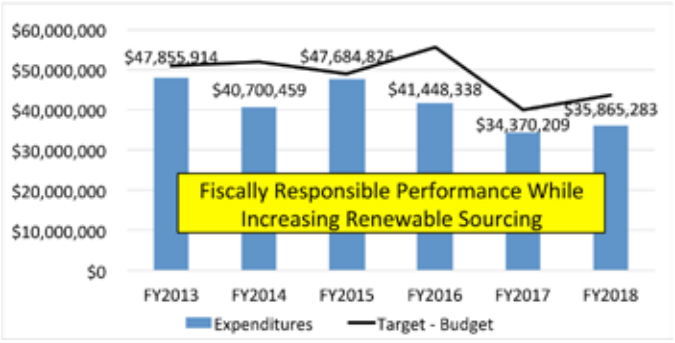


Figure 7.5-3 *EP Budget Performance*

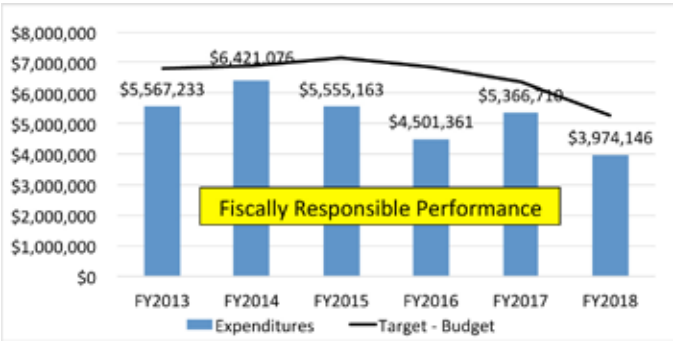


Figure 7.5-4 *GD Budget Performance*

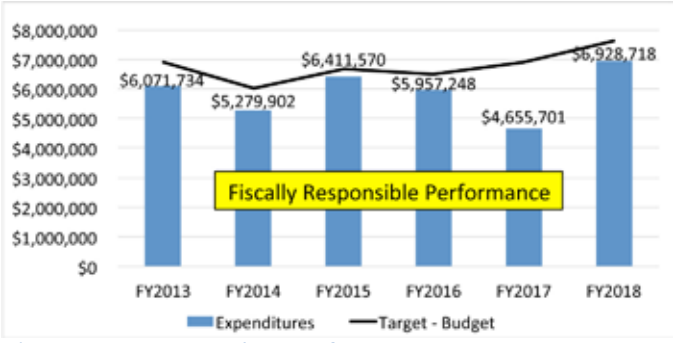


Figure 7.5-5 *WW Budget Performance*

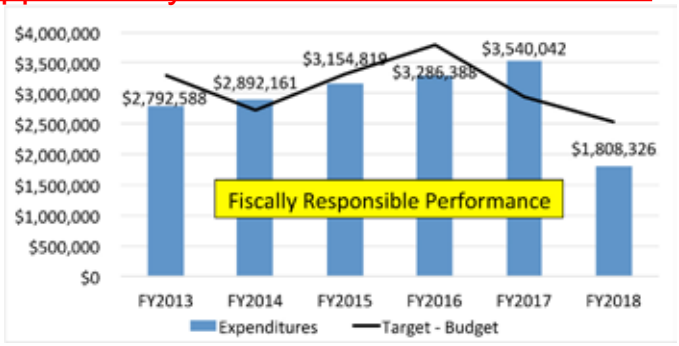


Figure 7.5-6 *WD Budget Performance*

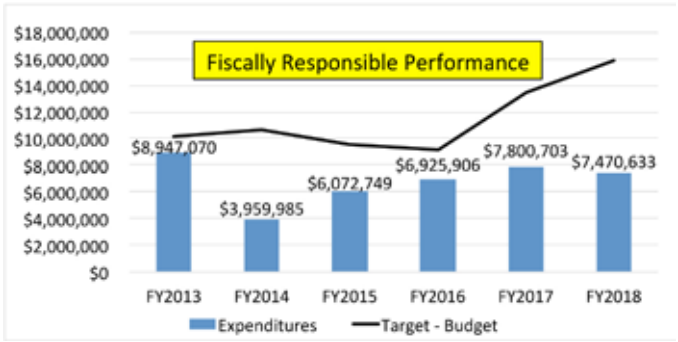


Figure 7.5-7 *WP Budget Performance*

Past due receivables (Figure 7.5-8) reflect improvement in working with customers to get their bills paid on time to ensure excellence in financial return and viability.

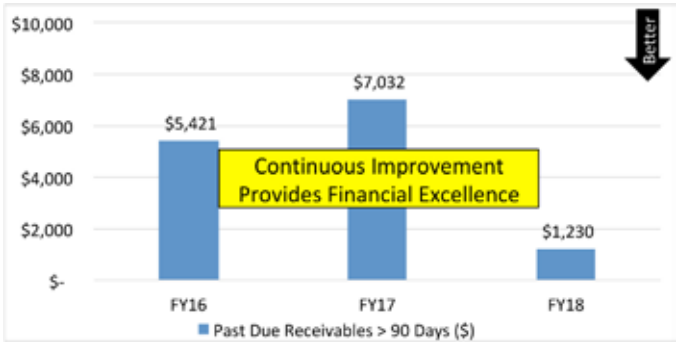


Figure 7.5-8 *Past Due Receivables*

7.5a2 Marketplace Performance Although we have no competition, we measure marketplace performance by assessing our average residential bills against valid comparisons as appropriate or available (Figure 7.5-9 through Figure 7.5-12). The results tie to Strategic Objective 2.1 (Figure 2.1-4), *Utilizing revenues to provide high-level service while keeping rates competitive with similar utilities*. Results

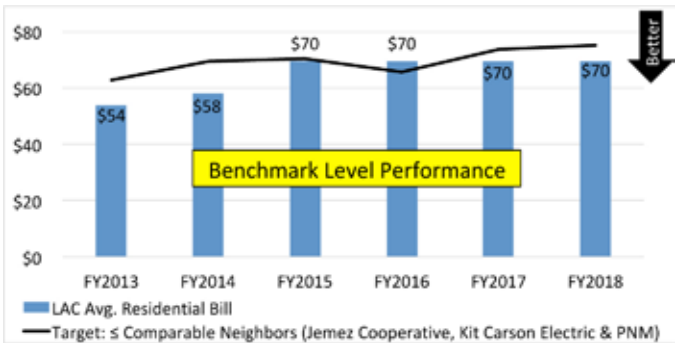


Figure 7.5-9 *Average Residential Bill (Electric)*

indicate benchmark level performance for all utilities.

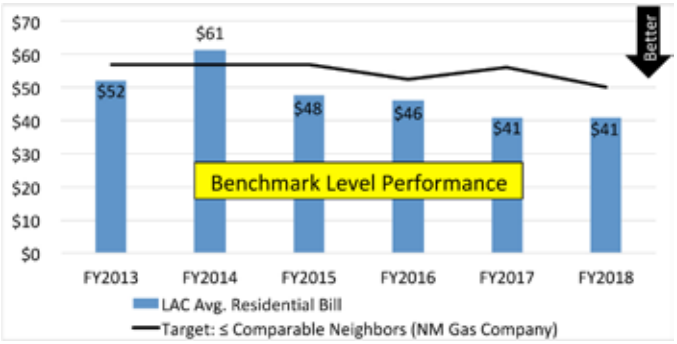


Figure 7.5-10 *Average Residential Bill (Gas)*

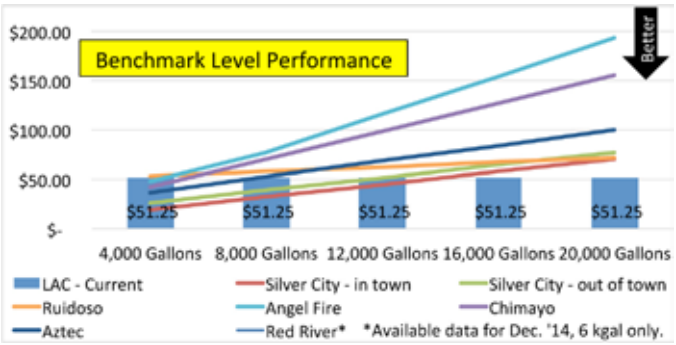


Figure 7.5-11 *Average Residential Bill (Wastewater/Sewer)*

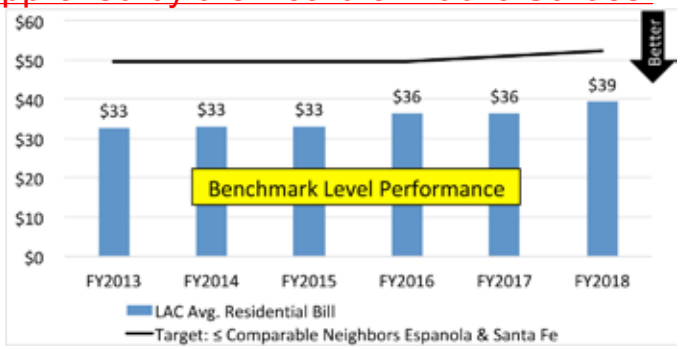


Figure 7.5-12 *Average Residential Bill (Water)*

7.5b Strategy Implementation Results Results for the Strategic Objectives (SO) in Figure 2.1-4 are included in Figure 7.5-13 for the last three fiscal years. Most SOs have more than one KPM to monitor and measure success. The full dashboard of KPMs used by SMT is AOS. Excellent results across all goals strengthens existing partnerships with SHs and provides a springboard to new partnerships. Results for recent intelligent risk taking are highlighted below.

Goal/SO Fig. 2.1-4 link	Key Performance Measures (7.x Figure #)	FY 16	FY 17	FY 18
1.1 Water	(WP) Drinking Water Compliance (7.4-5)	100%	100%	100%
1.2 Gas	(GD) PHMSA Reportable Main Pipeline Leaks/ 100 mi. Pipeline (7.1-6)	1.56	3.91	3.13
1.3 Sewer	(WC) Sewer Overflow Events/100 mi. pipeline (7.1-2)	4.24	3.39	2.54
1.4 EP	EAF (7.1-1)	Multiple	Multiple	Multiple
1.5 ED	SAIDI (7.1-2)	0:23	2:04	0:12
1.6 Systems	Management Audit	FY2009	FY2014	FY2019
1.8 Continuous Improvement	Innovation Inventory	AOS	AOS	AOS
2.1 Financial Excellence	Audits (7.4-7)	NV	NV	NV
2.2 Competitive Rates	Comparative rates Electric, Gas, Sewer, Water (7.5-9 thru 12)	Multiple	Multiple	Multiple
2.3 Meet Targets by 2025	Budget vs. Expenditures – Department (7.5-1)	$69M	$64M	$64M
2.4 Achieve Plans	Budget Performance (7.5-2 thru 7)	Multiple	Multiple	Multiple
3.1 Customer	Net Promoter Score (7.2-6-7)	N/A	FY2015	F72017
3.2 Stakeholders	Public Communication (7.2-4)	Multiple	Multiple	Multiple
4.1 Invest in WF	Professional Development (7.3-11)	69%	N/A	75%
4.2 Safe/ethical	OSHA Incident Rate (7.1-27)	7.3	6.8	1.3
4.3 WF Engagement	WF Survey: Employee Engagement (7.3-8)	63%	N/A	68%
5.1 Carbon Neutral	(EP) % Power Derived from renewable energy (7.4-10)	13%	25%	18%
5.2 Conservation	PEEC: #People Reached by Programs (7.4-16)	3,900	4,335	4,218
5.3 Reduce Water Use	Gallons per Capita (Potable) (7.4-13)	134	138	150
5.4 Reduce Gas 3%	(GD) Therms/ Capita/ Heating Degree Day (7.4-12)	.087	.086	.092
6.1 Partnerships	DPU operation is improved by our Partnerships	N/A	N/A	83.3%
At or Above Goal				
Approaching Goal				
Area to Improve				
Excellent Results in Every Strategic Goal Area				

Figure 7.5-13 *Strategy Achievement*

Intent to Apply

New Mexico Performance Excellence Awards
QUALITY NEW MEXICO

8. Eligibility Determination
   The Organization must . . .
   a. be a distinct organization or business unit operating in New Mexico.
   b. have officially or legally existed for at least one year.
   c. must be able to respond to all seven Baldrige Criteria categories, if submitting at the Roadrunner or Zia Levels,
   d. must have processes and related results for its unique operation's products, and/or services.

   Does the Organization meet the above eligibility requirements?
   _X_ Yes (Continue with next question)
   ____ No (Contact QNM before submitting this form.)

9. Questions for Subunits Only (Division, Department, Group)
   Is the Organization a subunit? ____ Yes (Continue with this question) _X_ No (Skip to next question.)
   Is the Subunit applying for a Zia Award? ____ Yes (Continue with this question) ____ No (Skip to next question.)
   The Subunit must . . .
   a. have 5 or more employees.
   b. be separately incorporated and distinct from the parent's other subunits OR must have been independent before being acquired by the parent and continue to operate independently under its own identity.
   c. function independently and as a discrete entity with substantial authority to make key administrative and operational decisions.
   d. have a clear definition of 'organization' reflected in its literature.
   e. function as a business or operational entity.
   f. be self-sufficient enough to be examined in all seven categories of the Baldrige Criteria.
   g. have its own senior leaders.
   h. plan and implement its own strategy.
   i. serve identifiable customers either inside or outside the organization.
   j. be responsible for measuring its performance and managing knowledge and information.
   k. manage its own workforce.
   l. manage its own work processes and other aspects of its operations.
   m. be able to report results related to these areas.

   Does the Subunit meet the above eligibility requirements for subunits if applying for the Zia Award?
   ____ Yes (Continue with next question)
   ____ No (Contact QNM before submitting this form.)

10. Intent Documents
    Include with your Intent to Apply
    - an organizational chart
    - other locations (see questions on following page)

11. Submittal
    Submit your Intent to the NMPEA Director via email or mail:

    EMAIL: nancee@quality-newmexico.org
    PHONE: (505) 944-2001

    Quality New Mexico
    P.O. Box 25005
    Albuquerque, NM 87125

A copy of this approved form will be returned for your records and for inclusion into your Self-Assessment.

For use by Quality New Mexico only:
Organization has met the eligibility requirements to submit its Self-Assessment to the NMPEA.

NMPEA Authorizing Official — Date 5/7/19

LOS ALAMOS

BOARD OF PUBLIC UTILITIES
ADDITIONAL MEETING DOCUMENTS

Additional or revised information or documents are often passed out to the Board at the meetings. Whenever possible, this informational cover page will accompany those documents.

MAKE 20 COPIES OF ANY DOCUMENTS, INCLUDING THIS COVER SHEET, AND RETURN TO JAIME KEPHART PRIOR TO THE MEETING.

MEETING DATE	07/17/2019
AGENDA ITEM	7.B Approval of Resolution 19-18
DOCUMENT TITLE(S)	Resolution 19-18
FROM	Steve Cummins, Deputy Utility Manager for Power Supply
NEW OR REVISED? Is this a revision that is different from what was in the agenda packet, or is it something entirely new?	Revised
RECOMMENDED ACTION If you have a new or revised recommended motion for the Board, enter it here.	**N/A**
ADDITIONAL INFORMATION Please VERY BRIEFLY explain the purpose of this information or document.	There was a non-substantive typo in the resolution provided in the agenda packet. It was corrected, and the revised version was given to the Board at the meeting. Pg. 2, Sec. 2(a) – "Notwithstanding the rights provided to the Participant Section 1~~(b)~~(d)…."

RESOLUTION NO. 19-18

A RESOLUTION AUTHORIZING AND APPROVING AN INCREASE IN THE PARTICIPANT'S ENTITLEMENT SHARE UNDER THE CARBON FREE POWER PROJECT POWER SALES CONTRACT FOR THE LAY-OFF POWER SALES AGREEMENT ASSOCIATED WITH JOINT USE MODULE PLANT OPERATIONS AT THE CARBON FREE POWER PROJECT; AND RELATED MATTERS.

***** ***** *****

WHEREAS, the Incorporated County of Los Alamos, New Mexico (the *"Participant"*) is a member of Utah Associated Municipal Power Systems (*"UAMPS"*) pursuant to the provisions of the Utah Associated Municipal Power Systems Amended and Restated Agreement for Joint and Cooperative Action, as amended (the *"Joint Action Agreement"*);

WHEREAS, the Participant has previously approved, executed and delivered the Carbon Free Power Sales Contract dated as of April 1, 2018 (the *"Power Sales Contract"*) with UAMPS, including an Entitlement Share of 8,000 kW of the capacity of the Project (initially capitalized terms used and not defined herein have the meanings assigned to them in the Power Sales Contract);

WHEREAS, UAMPS, the U.S. Department of Energy and Batelle Energy Alliance, as DOE's prime contractor at the Idaho National Laboratory (together, *"DOE"*) entered into a Memorandum of Understanding in December 2018 (the *"MOU"*), under which one of the small modular reactors at the Project (*"JUMP SMR"*) will be utilized by DOE for research and development purposes under its "JUMP" program;

WHEREAS, the MOU calls for definitive agreements for the JUMP SMR be negotiated by October 2019 (collectively, these agreements are referred to herein as the *"JUMP Lay-Off Power Sales Agreement"*);

WHEREAS, UAMPS and the Project Management Committee believe that the JUMP Lay-Off Power Sales Agreement will provide substantial benefits to the Participants and the Project as a whole, including accelerating the development of the Project, achieving cost savings and other benefits;

WHEREAS, certain Participants in the CFPP desire to facilitate this transaction by electing to increase their Entitlement Shares in a total amount sufficient to enable UAMPS to make the JUMP SMR available to DOE and thus enabling UAMPS to enter into JUMP Lay-Off Power Sales Agreement with DOE; and

WHEREAS, the Participant now desires to increase its Entitlement Share in the amount set forth below to facilitate the JUMP Lay-Off Power Sales Agreement;

NOW, THEREFORE, BE IT RESOLVED by the Governing Body of the Incorporated County of Los Alamos, New Mexico as follows:

Section 1. Increase of Participant Entitlement Share for JUMP Lay-Off Power Sales Agreement. (a) The Participant hereby authorizes and approves increasing its Entitlement Share in the CFPP by 2,974 kW and up to 10,000 kW of capacity.

(b) Upon the completion of negotiations with DOE, UAMPS shall submit the JUMP Lay-Off Power Sales Agreement to the Project Management Committee for approval as provided in the Power Sales Contracts. Upon the approval or disapproval of the JUMP Lay-Off Power Sales Agreement by the Project Management Committee, UAMPS shall send written notice to each of the Participants that has elected to increase its Entitlement Share of the action taken by the Project Management Committee and, if the Project Management Committee has approved the JUMP Lay-Off Power Sales Agreement, a copy of the JUMP Lay-Off Power Sales Agreement.

(c) If the JUMP Lay-Off Power Sales Agreement is approved by the Project Management Committee but is not executed by UAMPS for any reason, UAMPS shall give additional written notice of such fact to such Participants.

(d) Upon its receipt of the written notice from UAMPS described in (b) above, the Participant shall, in its sole discretion, have the right to rescind its election to increase its Entitlement Share as provided in 1(a) above or to modify the increase in its Entitlement Share as provided in 1(a) above upon its determination that the final terms of the JUMP Lay-Off Power Sales Agreement are unacceptable. Upon its receipt of the written notice from UAMPS described in (c) above, the Participant shall, in its sole discretion, have an additional right to rescind its election to increase its Entitlement Share as provided in 1(a) above or to modify the increase in its Entitlement Share as provided in 1(a) above. The Participant shall exercise these rights upon the approval of its Governing Body and by written notice to UAMPS which shall be given not later than 30 days after UAMPS gives notice to the Participant under (b) or (c) above.

Section 2. Miscellaneous; Effective Date. (a) Notwithstanding the rights provided to the Participant Section 1(d) of this resolution, this resolution shall be and remain irrepealable until the expiration or termination of the Power Sales Contract in accordance with its terms.

(b) All previous acts and resolutions in conflict with this resolution or any part hereof are hereby repealed to the extent of such conflict.

(c) In case any provision in this resolution shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

(d) This resolution shall take effect immediately upon its adoption and approval.

ADOPTED AND APPROVED this 6th day of August, 2019.

INCORPORATED COUNTY OF LOS ALAMOS,
NEW MEXICO

By _____
Sara C. Scott
Council Chair

ATTEST:

_____
Naomi D. Maestas
County Clerk

[SEAL]

County of Los Alamos
Staff Report
August 22, 2019

Agenda No.:	6.B
Index (Council Goals):	BCC - N/A
Presenters:	Bob Westervelt, Deputy Utilities Manager - Finance/Admin
Legislative File:	**RE0410-19**

Title
Approval of Incorporated County of Los Alamos Resolution No. 19-23. A Resolution Removing Uncollectible Utility Accounts from the Incorporated County of Los Alamos' Accounts Receivable List for Fiscal Year 2014

Recommended Action
I move that the Board of Public Utilities approve Incorporated County of Los Alamos Resolution No. 19-23. A Resolution Removing Uncollectible Utility Accounts from the Incorporated County of Los Alamos' Accounts Receivable List for Fiscal Year 2014, and forward to the Council with a recommendation for approval.

Staff Recommendation
Staff recommends that the Utilities Board approve Resolution No. 19-23; A Resolution Removing Uncollectible Utility and Miscellaneous Receivable Accounts from Accounts Receivable List of Los Alamos County and forward to the Council with a recommendation for approval.

Body
Pursuant to 3-37-7 NMSA 1978, it is requested that the County Utilities Board approve the write off of these uncollectible accounts. These accounts have been uncollectible for four (4) or more years, and all avenues for collection by the county have been exhausted. Once the Utilities Board has formally approved the write-offs for utility charges, a resolution will be prepared for County Council approval.

The New Mexico Attorney General's Opinion 70-88 indicated that writing off such uncollectible accounts has no effect on the County's future right to collection if circumstances change, and if collection is not barred by the applicable statute of limitations.

The amount of write-off for each utility was determined from the actual amounts billed. APPA reports that comparably sized utilities (5,000 - 10,000 customers) have a weighted average of .0046 per revenue dollar in FY2014. The County has a ratio of .002 for FY2014, excluding sales to DOE. This shows that FY2014 the County's ratio of uncollectible utility accounts is significantly lower than other similar size utilities.

Write-offs for fiscal year 2014 consist of 82 accounts for fiscal year 2014 totaling $24,737.90, which were sent to J.C.C. Christensen & Associates, the collection agency contracted by Los Alamos County to assist in collecting on outstanding final accounts in which previous collection efforts have failed. Please note the balance due listed on Exhibit "A" includes GRT & GGRT in

the amounts of $1,056.64 & $498.28 respectively.

Alternatives

The alternative is to maintain these amounts as receivables, an asset, on the County's books, with an offsetting liability, allowance for uncollectible accounts.

Fiscal and Staff Impact

Utility	FY2014
Electric	$ 7,608.40
Gas	$ 6,923.78
Water	$ 2,577.31
Sewer	$ 5.503.64
Subtotal	**$22,613.13** (amount requiring Utility Board Approval for FY14)
Refuse	$ 2,124.77
TOTAL	$24,737.90

Attachments

A - Resolution No. 19-23

INCORPORATED COUNTY OF LOS ALAMOS RESOLUTION NO. 19-23

A RESOLUTION REMOVING UNCOLLECTIBLE UTILITY ACCOUNTS FROM THE INCORPORATED COUNTY OF LOS ALAMOS' ACCOUNTS RECEIVABLE LIST FOR FISCAL YEAR 2014

WHEREAS, Robert Westervelt, Deputy Utilities Manager-Finance and Administration, has stated that:

1. The accounts listed are unsecured receivables incurred for the services or fees outlined in Exhibit "A" attached hereto;

2. Monthly statements were mailed and numerous phone calls were made in an effort to locate the debtors and collect the receivables;

3. The accounts have been uncollectible for more than four (4) years;

4. In the opinion of the Deputy Utilities Manager-Finance, the accounts are uncollectible; and

WHEREAS, collection efforts with respect to the uncollectible accounts have been unsuccessful and the uncollectible accounts remain on the list of accounts receivable of the Incorporated County of Los Alamos (County); and

WHEREAS, County wishes to remove the uncollectible accounts from the list of accounts receivable as authorized by NMSA 1978, Section 3-37-7.

NOW THEREFORE BE IT RESOLVED by the governing body of the Incorporated County of Los Alamos, that:

Section 1. Pursuant to NMSA 1978, Section 3-37-7, the uncollectible accounts, including but not limited to those uncollectible accounts that have been discharged in bankruptcy, are hereby removed from the list of accounts receivable of County.

Section 2. Nothing in this Resolution or the removal of the accounts from the list of accounts receivable shall have any effect on County's future rights to collection as to the uncollectible accounts and the discharged accounts if circumstances change.

Section 3. Council hereby directs and authorizes the County Manager/Treasurer to take all necessary action to accomplish the purpose of this Resolution.

PASSED AND ADOPTED this 27th day of August 2019.

COUNCIL OF THE INCORPORATED
COUNTY OF LOS ALAMOS, NEW MEXICO

_____

Sara C. Scott
Council Chair

ATTEST: (Seal)

_____

Naomi D. Maestas
Los Alamos County Clerk

Account Number	Customer Name	Amount Due
2000630	LARRY R MARTINEZ	$ 53.24
2000789	RENICK WORLEY	$ 145.72
2001393	LUJAN	$ 370.72
2008136	BETTI J BURKE	$ 376.31
2012472	DAVID LICHLITER	$ 106.29
2012482	DAVID LICHLITER	$ 132.55
2013169	PRISCILLA MITCHELL	$ 65.41
2015121	DENISE EWY	$ 23.44
2017009	WES WOMACK	$ 270.96
2017564	COFFEE HOUSE	$ 991.67
2021589	CHELSEA CANTRUP	$ 173.87
2021600	ESQUIRE BARBER SHOP	$ 136.77
2021626	BOONE, ZENAS J	$ 35.99
2021894	VALERIE ADAMS	$ 281.09
2025142	THERESA MILLIGAN	$ 58.94
2025158	FELINA TRUJILLO	$ 52.80
2025221	DEBORAH DOUGLAS	$ 256.74
2025546	LLC PINON TRAILS VENTURES	$ 247.97
2032178	MIKE FRAIN	$ 33.71
2035178	DANIEL RODRIGUEZ	$ 220.13
2036628	REA/ 379 CATHERINE	$ 123.25
2040958	ANNE LICON-KEMPER	$ 188.78
2045428	BEAU GERRARD	$ 431.41
2045578	KEVIN FINN	$ 22.29
2049068	MARIA MENDOZA	$ 73.24
2051178	BARBIE MEGARIZ	$ 567.77
2055818	JAMES HOLDEN	$ 638.32
2067138	REGINALD BREWER	$ 524.87
2071848	CHARLES PHILLIPS	$ 58.17
2073828	JENNIFER HARTLINE	$ 236.86
2076258	VALERIE MARQUEZ	$ 85.05
2077088	CAITLIN SMITH	$ 1,226.59
2077438	ANTHONY FRISTACHI	$ 289.15
2080418	CATHLEEN L TRIGLETH	$ 990.32
2081918	WEIZHONG HAN	$ 24.72
2081938	KENNY AND BRIDGET SMITHERS	$ 74.70
2082438	XIAODONG WEN	$ 7.97
2083358	WESTON HORPEDAHL	$ 13.58
2083688	BOBBIE STEWART	$ 14.39
2085088	WANKI BAE	$ 9.48
2087578	GREG HENDERSON	$ 262.56
2088818	CHARLES MORRIS	$ 29.19
2090318	NICHOLAS ANDERSON	$ 687.05
2091558	NICHOLAS AND JESSICA WEBB	$ 462.83

2093688	LINDSAY KRESLAKE	$	480.39
2093908	DESIREE NITZ	$	296.41
2094458	BURGANDY R BROCK	$	887.44
2094848	ASHLEY AND BRADLEY HUGHES	$	428.03
2094888	MARTIN DOMINGUEZ	$	162.22
2095078	ROVER NO. 1 DOGGY DAYCARE	$	163.52
2095088	SUNG DAE YIM	$	123.49
2095618	VIVIANA MARQUEZ LOPEZ	$	17.38
2096918	MALLISSA DUNCAN	$	10.65
2097288	JAXON MOFFETT	$	461.08
2098188	MOSES A SALAZAR	$	494.32
2098378	EVA RUYBAL	$	58.07
2098408	JEFFREY MYERS	$	392.92
2098568	JUAN M GONZALES	$	470.08
2099038	LENLEY SALAZAR	$	81.45
2099278	A AND C PERFORMANCE	$	70.17
2099748	BOBBIE WENDROVSKY	$	146.70
2099938	SHANG LIU	$	18.93
2100098	TRISHA INTERIOR	$	33.77
2100438	KARA MARLIN-HRUSKA	$	238.26
2100648	DONNA MORALES	$	176.29
2100778	MARTINA SHAFFER	$	228.45
2100858	MELINDA MILLER	$	85.53
2101308	GERALD HECK	$	12.16
2101338	SERGIU DRADUTA	$	7.44
2101898	MARIELA RUIZ AND LUIS QUEZADA RUIZ	$	453.34
2102438	BRITTANY DONNELLY	$	1,099.91
2102528	TRACY THOMAS	$	8.24
2102988	BRIANA DIMICK	$	66.42
2103018	GARY G BOBO	$	577.86
2103078	FUSION CAFE AND COFFEE ROASTERS	$	6,237.69
2103388	SAM TRUJILLO	$	11.28
2103418	DENNIS GARCIA	$	249.98
2103528	MARCO GARCIA	$	139.67
2103688	GUSTAVO PALACIOS AND JOHANNA SANDOVAL	$	305.82
2103818	EUGENE BURRELL	$	291.93
2104578	SUMMER VESTAL	$	15.73
2105058	URS CORPORATION	$	212.94
	TOTAL WRITE OFFS	**$**	**26,292.82**

County of Los Alamos
Staff Report
August 22, 2019

Agenda No.:	6.C
Index (Council Goals):	BCC - N/A
Presenters:	Bob Westervelt, Deputy Utilities Manager - Finance/Admin
Legislative File:	**12049-19**

Title
Approval of Budget Carryovers from FY2019 to FY2020

Recommended Action
I move that the Board of Public Utilities approve Budget Revision 2020-08 for carryovers from FY2019 to FY2020 and forward to Council with a recommendation for approval. I further move that the budget revision be included as an attachment in the minutes for the record.

Staff Recommendation
Staff recommends the Board of Public Utilities approve the budget carryovers as presented and forward to Council with recommendation for approval.

Body
Requirements for carryover of budget authority are as follows:
1. The project was budgeted in FY2019, was not completed, and the remaining budget in FY19 is carried over to continue the project in FY2020.
2. The project was not included in the FY2020 budget.
3. The project was not encumbered in FY2019.

All of these requirements have been met for each of the projects listed below. We are seeking Board approval to carry these funds over in anticipation of completing these projects in FY2020. Upon Board approval this $5,761,745 carryover will be presented by Finance Staff for Council approval.

Water Production budgeted, with revisions, $5,064,361 for the Otowi 2 Well House and equipment project, LA Reservoir Road stabilization, Pajartito Well #5 MCC replacement, and the Pajarito Well #4 motor replacement. This work has been started but hasn't yet been completed. The budget has been only partially spent or encumbered, therefore $3,417,876 of the remaining budgeted funds needs to be carried forward into FY20.

In Electric Distribution, carryforward of unspent budgeted funds is requested for two projects, the Los Alamos Switchgear Substation (LASS) and the NM 502 project. In FY19, 1,340,817 was budgeted for URD replacements in Los Alamos and White Rock, however, due to the NM 502 project unexpected expenses were incurred ($184,033) and staff resources were pulled away from this project. DPU would like to re-appropriate $500,000 of the remaining funds to NM 502 and URD replacements. In FY19, $334,000 of capital project funds were carried over from FY18

to FY19 for the LASS substation. In FY19 $155,359 was expended or encumbered. This project has been delayed further due to LANL. DPU is requesting a carryover of the remaining unencumbered funds of $178,641 into FY20.

In FY19, $194,814 was budgeted under Water Distribution for new valve installs at DOE delivery locations. On this project $107,546.45 was expended in FY19. DPU is requesting a portion of the remaining funds, $25,000, to be carried forward into FY19.

In Wastewater, $43,800 was budgeted for GIS upgrades and maintenance in FY19, including another $1,300 carried forward from FY18. A total of $16,470 was expended in FY19. As such, DPU requests the remaining $27,330 of these funds be carried forward into FY20.

Also, in Wastewater, $493,397 was budgeted in FY19, including $81,397 in encumbrances from FY18, for computer system upgrades, blower install, compost pad expansion, and dechlor upgrades. Of these funds, $60,776 was expended or encumbered. As such, $320,000 of the remaining budgeted funds need to be carried over into FY20.

Water Production budgeted $27,000 in FY19 for tools, supplies, and equipment for storage tank improvements/upgrades and compliance upgrades. This work has not been completed yet. Of the $27,000 in budgeted funds, DPU requests to carry $27,000 into FY20.

Water Production planned SCADA (HSQ) programing in the Potable system by budgeting $92,500 in FY19. Those programing upgrades are not yet complete. Therefore, $90,929 in remaining budgeted funds needs to be carried forward into FY20.

Also, in Water Production, $173,955 was budgeted for five new effluent meters in the non-potable system, HSQ programing in the Non-Potable SCADA system, and storage tank upgrades, which includes $121,455 in budget revisions. Problems with the meters and delays from the manufacturer have required this project remain open in FY19. As such, $131,921 in remaining budgeted funds needs to be carried forward into FY20.

Funds for the AMI project were awarded in mid FY19, and the contract was awarded in the spring of 2019. Due to lack of staff resources, this project will continue into FY20. DPU is requesting carryover of unencumbered funds in Electric Distribution of $200,235, Gas of $171,341, and Water Distribution of $138,055. In addition to this, when the pervious revision was approved by BPU and Council, tax and contingency was not included in the revision. Additional funding is requested, to match funds to the contract amount for this project, including contingency and GRT, in Electric Distribution of $209,581, Gas of $179,338 and Water Distribution of $144,498. This is a total of $1,043,048. Work on this project is expected to begin in January, due to the Munis 2019.1 upgrade.

Please note: Budget carryovers for the White Rock Waste Water Treatment Plant was previously approved by BPU on July 17, 2019 and Council on July 30, 2019 in budget revision 2020-05.

Alternatives

If these funds, budgeted but not expended in FY2019, are not carried over the projects could be funded with FY2020 funds (requiring a FY2020 budget adjustment), postponed and re-budgeted in FY2021, or cancelled.

Fiscal and Staff Impact

$5,761,745 transfer of budget authority from FY2019 for expenditures in FY2020.

Attachments

A - Budget Revision 2020-08

Budget Revision 2020-08

BPU Meeting Date: Aug 21, 2019 **Council Meeting Date: Sep 24, 2019**

	Fund Name	Description	Org	Object	Expenditures (decrease)	Fund Balance (decrease)
1	Utilities - Water Distribution	New valve installs at DOE Contract Delivery locations	54185420	8369	$ 25,000	$ (25,000)
2	Utilities - Water Production	Storage Tank Tools, Supplies and Equipment for Upgrades	54285610	8579	$ 20,000	$ (20,000)
3	Utilities - Water Production	Storage tank regulatory compliance upgrades	54285635	8839	$ 7,000	$ (7,000)
4	Utilities - Water Production	HSQ Programing of Otowi and Guaje Sub-Systems	54285640	8559	$ 90,930	$ (90,930)
5	Utilities - Water Production	NP Meter Upgrades, programing, and reporting	54285645	8369	$ 75,000	$ (75,000)
6	Utilities - Water Production	Storage tank equipment upgrades	54285645	8369	$ 40,000	$ (40,000)
7	Utilities - Water Production	HSQ Programing of Otowi and Guaje Sub-Systems	54285645	8369	$ 16,921	$ (16,921)
8	Utilities - Wastewater	GIS Upgrades	55185510	8369	$ 27,330	$ (27,330)
9	Utilities - Wastewater	Computer System upgrades, Blower Install, Compost Pad expansion, Dechlor Upgrades	55185525	8369	$ 320,000	$ (320,000)
10	Utilities - Electric Distribution	AMI (AGR19-912) and Contingency, Tax, and Remaining Contact AMT	51285299	8839	$ 409,816	$ (409,816)
11	Utilities - Gas	AMI (AGR19-912) and Contingency, Tax, and Remaining Contact AMT	53185399	8839	$ 350,679	$ (350,679)
12	Utilities - Water Distribution	AMI (AGR19-912) and Contingency, Tax, and Remaining Contact AMT	54185499	8839	$ 282,553	$ (282,553)
13	Utilities - Water Production	Otowi Well #2 - Well House and Equipment Design and Construction	54285699	8369	$ 1,680,561	$ (1,680,561)
14	Utilities - Water Production	LA Reservoir Road Stabilization Project	54285699	8369	$ 1,630,000	$ (1,630,000)
15	Utilities - Water Production	Pajarito Well #5 MCC Replacement (AGR19-12) and Contingency	54285699	8369	$ 53,657	$ (53,657)
16	Utilities - Water Production	Pajarito Well #4 Motor Replacement (AGR19-39 Wagner) and Contingency	54285699	8369	$ 53,657	$ (53,657)
17	Utilities - Electric Distribution	Crown and LASS SUBSTATION delayed due to LANL	51285299	8369	$ 178,641	$ (178,641)

Budget Revision 2020-08

BPU Meeting Date: Aug 21, 2019 **Council Meeting Date: Sep 24, 2019**

18	Utilities - Electric Distribution	Unspent URD captial project funds carryover request for NM 502 Project	51285299	8369	$ 500,000	$ (500,000)

Description: The purpose of this budget revision is to carryover budget authority to FY2020 for various Utilities projects and for operational expenditures. These projects were not completed in FY2019 and are planned for FY2020. There isn't a valid encumbrance at June 30, 2019 and the projects were not rebudgeted in FY2020. A brief descriptions for each carryover request is shown above in the third column. For the AMI Project, Council approved a total project of $6,531.40 which included contingency and GRT. However, the budget revision approved at the same meeting did not include either the contingency or GRT ($533,417). The $533,417 has been included in this request.

Fiscal Impact: The impact on the Joint Utilities Fund is to increase expenditures and decrease fund balance by $5,761,745.

County of Los Alamos
Staff Report
August 22, 2019

Agenda No.:	6.D
Index (Council Goals):	* 2019 Council Goal - N/A
Presenters:	Bob Westervelt, Deputy Utilities Manager - Finance/Admin
Legislative File:	**AGR0640-19**

Title
Request for Consent to Assignment of Services Agreement AGR17-01, Changing the Assignment from Diamond Marketing Solutions Group, Inc. to Output Services Group, Inc. (OSG) and Approval of Related Amendment No. 2.

Recommended Action
I move that the Board of Public Utilities approve the Consent to Assignment of Services Agreement AGR17-01, changing the assignment from Diamond Marketing Solutions Group, Inc. to Output Services Group, Inc. (OSG) and the related Amendment No. 2 to Services Agreement AGR-17-01, and forward both to Council for approval.

Staff Recommendation
Staff recommends approval of the Consent to Assignment of Services Agreement AGR17-01 and Amendment No. 2 to Services Agreement AGR-17-01 as presented.

Body
Los Alamos Department of Public Utilities entered into Services Agreement AGR17-01 on February 1, 2017, with Diversified Data Processing & Consulting Inc (DivDat) to laser print, insert and mail monthly utility statements and past due notices to DPU customers; print and insert utility bill stuffers; generate electronic bill presentations (e-billing); and integrate utility data with the Los Alamos DPU App . The term of the agreement is from March 1, 2017 through February 28, 2021.

As required under Section O of Services Agreement AGR17-01, DPU received a July 17, 2018 letter from DivDat informing Los Alamos County that on June 26, 2018, DivDat entered into an Asset Purchase Agreement with Diamond Marketing Solutions Group, Inc. DivDat further requested the irrevocable consent from Los Alamos County for DivDat to assign its rights and obligations and the delegation of all of its performance under Services Agreement AGR17-01 to Diamond. Specifically, section O states that the “Contractor may not assign this Agreement or any privileges or obligations herein without the prior written consent of the County.” Upon Los Alamos County’s consent and the closing of the Asset Purchase Agreement, Diamond was to be bound by all of the terms of Services Agreement AGR17-01.

In July, 2019, DPU received another request, dated July 8, 2019, for Consent to Assignment of Service Agreement 17-01, this time to Diamond Marketing’s parent company, Output Services Group (OSG). The letter states that the requirements of AGR17-01 can most effectively be accomplished by OSG directly, and requests assignment of the agreement to OSG. The

proposed Approval of Assignment and Amendment No. 2 to Services Agreement 17-01 authorizes that assignment.

Alternatives

Should the Board and Council determine not to approve the Consent to Assignment of Services Agreement AGR17-01, DPU will need to work with Diamond Marketing to determine if they are able and willing to continue under the existing assignment, or DPU will need to issue a new request for proposals and award a new contract for bill printing services.

Fiscal and Staff Impact

Approving the Assignment of Services Agreement AGR17-01 should have no fiscal impact and no impact on staff.

Attachments

A - Request for Consent to Assignment of Agreement
B - Amendment No 2 to Services Agreement AGR17-01

DIAMOND
COMMUNICATION SOLUTIONS

July 8, 2019

Via U.S. Mail and Email

Julie Williams
Public Relations Manager
County of Los Alamos
PO Box 1030
Los Alamos, New Mexico 87544

Re: Request for Consent to Assignment of Agreement

Dear Ms. Williams:

Reference is made to the Diversified Data Processing & Consulting, Inc. Service Agreement[1], dated as of 3/1/17 (together with any amendments, addendum, supplements and related documents and agreements, including the assignment described below, the "**Agreement**"), between Diversified Data Processing & Consulting, Inc., a Michigan corporation d/b/a DivDat ("**DivDat**"), and County of Los Alamos ("**you**" or "**your**") which was assigned with your consent to Diamond Marketing Solutions Group, Inc., a Delaware corporation ("**Diamond**"), following the sale by DivDat of certain of its business assets to Diamond on August 31, 2018.

As you may remember, Diamond is a subsidiary of Output Services Group, Inc. (also known as OSG Billing Services, together with its subsidiaries including Diamond, "**OSG**"), which has been in business for over 25 years and is one of the largest providers of integrated communication and billing solutions in the U.S. OSG offers comprehensive and flexible solutions including electronic billing and invoice/statement services, document printing and mailing and an expansive suite of complementary forward-thinking digital marketing solutions to a large and fast growing group of clients in a variety of industries, including the healthcare, utility, municipality, financial services, real estate and heating oil/propane markets. To learn more about OSG, please visit its websites at www.osgbilling.com.

We believe that your work can most effectively be handled in one of OSG's facilities. As a result, we at Diamond propose to assign the Agreement, including the assignment of all of our rights and obligations and the delegation of all of our performance under the Agreement, to OSG who would assume all of our rights and obligations and agree to be bound by all the terms of the Agreement effective as of and from and after July 8, 2019 (such assignment and delegation, the "**Assignment**").

In accordance with the Agreement, we hereby request your irrevocable consent to the Assignment and waiver of your rights under the Agreement resulting from or related to the Assignment. Notwithstanding any provision in this consent, the Agreement or the

DIAMOND
COMMUNICATION SOLUTIONS

Assignment to the contrary, by executing this consent, you acknowledge and agree that we have not and will not be deemed to have breached or violated any provision of the Agreement and are not in default of any of our obligations under the Agreement.

Please sign this letter below to acknowledge your review of its contents, and your irrevocable consent to the Assignment and related waiver and acknowledgment and return a PDF copy to me via email at gwaite@dmsolutions.com. We ask that you send us the signed consent **as soon as possible but no later than Friday, August 9th, 2019**. It is our great privilege to serve you and we are thankful for the trust you have placed in us. We strongly believe that our relationship with DivDat has created the best possible combination of resources and focus this past year and will enable us to provide the highest level of service to you in the future. We seek your continued support and will work diligently to be worthy of it.

If you have any questions regarding the Assignment or this request for consent, please call me at (630) 597-9017, or email me at gwaite@dmsolutions.com. If you would also like to speak to a representative of OSG, please contact me and I will be happy to arrange for you to do so.

We appreciate your assistance and thank you in advance for your prompt attention to this matter.

Very truly yours,

DIAMOND MARKETING SOLUTIONS GROUP, INC.

By: Greg Waite

Name: Greg Waite

Title: President

Date: July 8, 2019

The undersigned hereby consents to the Assignment and waiver of rights described above as of the date set forth below:

By: _____

Name: _____

Title: _____

Date: _____

AMENDMENT NO. 2
INCORPORATED COUNTY OF LOS ALAMOS
SERVICES AGREEMENT NO. 17-01

This **AMENDMENT NO. 2** is entered into by and between the **Incorporated County of Los Alamos**, an incorporated county of the State of New Mexico ("County"), and **Output Services Group, Inc.**, also known as **OSG,** a Delwarde Corporation ("Contractor"), to be effective for all purposes August 28, 2019.

WHEREAS, County entered into Service Agreement No. AGR17-01 with Diversified Data Processing & Consulting Inc., dba DivDat ("DivDat") on March 1, 2017, through Request for Proposals ("RFP") No. 17-01, dated June 12, 2016, requesting proposals for Bill Printing, Mailing and Electronic Billing Notification Services for Utilities, as described in the RFP, which is incorporated herein by reference for all purposes; and

WHEREAS, on June 26, 2018, DivDat entered into an Asset Purchase Agreement with Diamond Marketing Solutions Group, Inc. ("Diamond") and on July 17, 2018 assigned and delegated all of its rights and duties to Contractor under Agreement No. AGR17-01; and

WHEREAS, on August 29, 2018, Diamond through Amendment No. AGR17-01-A1 assumed all obligations of the original Agreement and that County and DivDat each released the other from any obligations owed under Agreement AGR17-01; and

WHEREAS, Diamond is a subsidary of Contractor and Diamond has determined the terms of the Agreement can most effectively be handled by Contractor;

WHEREAS, Contractor wishes to honor the Agreement originally awarded to DivDat, and assigned to Diamond to continue to provide Bill Printing, Mailing and Electronic Billing Notification Services for Utilities; and

WHEREAS, County specifies all future invoices for Services rendered under this Agreement as so amendmed will be issued on a timely basis by Contractor under Contractor's name and Contractor will cooperate with County in providing information and forms required to set Contractor up as a vender in County's financial system; and

WHEREAS, the Board of Public Utilities approved the assignment of Agreement No. AGR17-01 at a public meeting held on August 22, 2019; and

WHEREAS, the County Council approved the assignment of Agreement No. AGR17-01 at a public meeting held on August 27, 2019; and

NOW, THEREFORE, for good and valuable consideration, County and Contractor acknowledge, agree, and stipulate that Contractor and County are bound by all obligations, terms and conditions including all past or future liabilities created by Agreement No. AGR17-01, dated March 1, 2017, between DivDat and County and by Amendment No. AGR17-01-A1, dated August 29, 2018, between Diamond and County.

Except as expressly modified by this Amendment, the terms and conditions of the Agreement remain unchanged and in effect.

IN WITNESS WHEREOF, the parties have executed this Amendment No. 2 on the date(s) set forth opposite the signatures of their authorized representatives to be effective for all purposes on the date first written above.

ATTEST

_____

NAOMI D. MAESTAS
COUNTY CLERK

Approved as to form:

_____

J. ALVIN LEAPHART
COUNTY ATTORNEY

INCORPORATED COUNTY OF LOS ALAMOS

BY: _____

PHILO S. SHELTON III, P.E. **DATE**
UTILITIES MANAGER

OUTPOUT SERVICES GROUP, INC. A DELAWARE CORPORATION

BY: _____

NAME: _____ **DATE**
TITLE: _____

County of Los Alamos
Staff Report
August 22, 2019

Agenda No.:	7.A
Index (Council Goals):	* 2019 Council Goal - Planning for Appropriate Levels of County Services
Presenters:	Steve Cummins, Deputy Utilities Manager - Power Supply
Legislative File:	**12146-19**

Title
Update on the Adopted Future Energy Resource Initiatives

Recommended Action
None

Staff Recommendation
None

Body
The Board of Public Utilities adopted, as part of a strategic policy, recommendations from the 7 July 2015 “Future Electrical Energy Resources” report. The Board asked staff to provide a comprehensive update of the adopted initiative. The attachment includes a brief summary of what’s been accomplished towards achieving each of the 26 initiatives.

Alternatives
None

Fiscal and Staff Impact
None

Attachments
A - Update on BPU Strategic Initiatives August 2019

BPU STRATEGIC INITATIVE

DATE APPROVED:	January 20, 2016
TITLE:	Strategic Policy for Electrical Energy Resources
Status Update:	August 22, 2019

The Board of Public Utilities adopted, as part of a strategic policy, the following resource recommendations adapted from the 7 July 2015 "Future Electrical Energy Resources" report:

1. The definition of "carbon-neutral electrical energy provider" adopted by the Board of Public Utilities on January 20, 2016 should accompany or be included in board's "carbon neutrality" goal.

Complete

2. Incorporate "environmental impact, specifically greenhouse gas production," as a factor to be considered in all resource decisions.

Environmental Impacts, including greenhouse gas production was considered in the Development of the Integrated Resource Plan.

3. Encourage more efficient use (conservation) of electrical energy by Los Alamos County consumers.

This effort is accomplished through a contractual agreement with the Pajarito Environmental Education Center. DPU Engineering provides quarterly updates to BPU.

4. Support replacement of petroleum-fueled motor vehicles with all-electric vehicles. Consider locating more electric vehicle charging stations around the County or at LANL.

In July of 2018, staff provided a recommendation on where to locate charging station around the community with an estimated cost for each location. At that time, DPU anticipated a grant opportunity from the NMED. In July 2019 the New Mexico Environment Department announced the application period for the second round of funding through the 2017 Volkswagen (VW) settlement is open. The application period is open through Nov. 15, 2019. DPU is in the process of completing the applications. NMED anticipates announcing projects selected for funding before the end of the calendar year.

Based on the grant application results, staff will return to BPU with a recommended project scope and budget with an anticipated schedule for construction in the 2nd and 3rd quarter of 2020.

DPU is working with Atomic City Transit on the installation of two electric bus charging stations at Pajarito Cliffs. DPU will also be purchasing an electric vehicle to replace Electric Production vehicle No. 1111 in FY2020.

5. Maintain and operate the Abiquiu and El Vado hydroelectric plants as the backbone of the Los Alamos County long-term future electrical supply.

Electric Production staff will continue to operate and maintain the Abiquiu and El Vado hydroelectric generating facilities as long as they are economically viable.

6. Plan to exit San Juan Generating Station share ownership in the mid-2020's, under the most opportune circumstances.

Los Alamos County notified the Public Service Company of New Mexico (Operator of the San Juan Generating Station) that Los Alamos will exit the station at the end of the current Project Participation Agreement in June of 2022.

7. Explore sale of the Laramie River Station purchased power agreement. Sell if and when economically feasible and consistent with the needs of the Electric Coordination Agreement Pool, considering the continued carbon production and increasing regulatory risks associated with that plant.

Electric Production staff continue to explore opportunities to exit the coal fired Laramie River Station or potentially swap the power generated with a firm renewable resource. Another option being evaluated is a Power Purchase Agreement for firm renewable energy leaving LRS available for contract negotiations with DOE-LANL to support their load forecast.

8. Continue to explore participation in the UAMPS nuclear power project as a replacement source of base power, carefully considering plant safety, realistic life-cycle costs, and potential for a cooperative power-sharing arrangement with DOE/LANL after 2025.

DPU continues to participate in the development of the Carbon Free Power Project. On July 17, 2019 the UAMPS Board of Directors adopted and approved a resolution declaring the Power Sales Contracts to be effective and to terminate the Study Phase Siting Agreement which was approved by BPU in August 2015 with a budget of $145,540.00 which included a 20% contingency. The Study Phase Siting Agreement was approved by the Operating Committee for the Electric Coordination Agreement to be shared approximately at 20% LAC and 80% DOE-LANL. FY2016 through FY2019 the Power Pool share of this phase was $128,643.32.

Most recently the Board and Council approved the Joint Use Module Plant (JUMP) resolution. The resolution increases the County's entitlement share by 2.974 MW, up to 10 MW for a total capacity interest of 10.974 MW to 18 MW. UAMPS will issue Schedule I to the Power Sales Contract showing the entitlement shares in the project on August 21, 2019.

The JUMP Resolution expressly identifies that each Participant signing up for a JUMP allocation will have the unilateral right to fully rescind or lower its JUMP allocation upon reviewing the final terms and conditions of the JUMP agreement (anticipated to be finalized in October 2019).

The ten year average generation from the Abiquiu and El Vado hydroelectric facilities, and the initial 8 MW allocation in the CFPP, is expected to generate approximately 128,000 MWh per year. Based on our most recent load forecast, LAC electric demand will be approximately 136,000 MWh per year in 2030 and approach 150,000 MWh in 2040. The additional 3 MW of capacity will help meet our current load projections in 2040 by supplying an additional 25,000 MWh annually.

These load projections do not account for the electric demand associated with the electrification of automobiles and the possible reduction in generation from the County Owned hydroelectric facilities due to operational changes.

UAMPS expects to exhaust the $6 million budgeted under the current phase of the project by November of this year. At this time an updated Budget and Plan of Finance will be approved by the Project Management Committee and the participants will have another opportunity to consider if the project is right for their community.

9. Pursue access (transfer or long-term lease) to suitable utility-scale photo-voltaic generation sites presently owned by DOE/LANL.

Prior to this initiative becoming a policy, the Operating Committee for the Electric Coordination Agreement had been exploring sites on DOE/LANL property. On August 12, 2015 the National Renewable Energy Laboratory (NREL) completed a DOE Los Alamos National Laboratory PV Feasibility Assessment. The study identified several areas of the Laboratory suitable for a solar array. DOE-LANL proceeded with the environmental review process and found cultural artifacts eliminating several of the preferred sites for development. DOE-LANL has pursued one site approximately 50 acres which has been previously disturbed making it the preferred site. The environmental review process has been completed. LANL's Utilities and Infrastructure division is awaiting for TRIAD to make the final decision on whether to proceed with the project. It was reported that the earliest commitment would push the project into calendar year 2020. The Operating Committee for the ECA is currently in discussion on a post-2025 contract and will consider how this project will be treated.

10. Monitor feasibility and costs for battery storage, including at least Li-ion and Vd-flow batteries.

DPU continues to monitor the feasibility and cost of Battery Energy Storage Systems (BESS). The Integrated resource plan analyzed the Vd-flow battery in conjunction with a solar PV resource. Staff continues to look at the options for firming a renewable resource with an emphasis towards a Power Purchase Agreement with a large utility scale project for the benefits associated with the economies of scale and third party firming.

11. Explore feasibility (including access to present DOE/LANL lands) and estimate costs of pumped hydro storage somewhere within Los Alamos County.

Staff has explored the cost of Pumped Storage assuming the land could be acquired from DOE and will present their findings at the August 2019 BPU meeting.

12. Evaluate feasibility, including market interest, for a community solar garden if bandwidth or other limits are not being approached by individual installations.

Staff is scheduled to present a Power Purchase Agreement for the 2nd MW at the closed landfill site in August of 2019. Staff has done some preliminary planning with the community solar garden concept. There are two primary reasons community solar gardens are attractive to interested participants. First; taking advantage of the economies of scale with a utility scale project over that of a residential installation, and second; is that many interested participants do not have a suitable site at their residence.

With the limited public land availability for Los Alamos County, currently the closed landfill was the only option for a utility scale solar project. Because of the landfill cap requirements, any solar PV array is the ballasted type. The capped landfill also has a methane extraction system which developers must consider in their design and operation of the array. For these reasons the cost per kilowatt hour is in the six cent range eliminating the lower cost typically seen with a 1 MW capacity solar array.

13. Explore current interest in a hydroelectric project at Cochiti Dam with the Pueblo.

Staff has not made any efforts with this initiative for several reasons. First; is respecting the wishes of the Cochiti Pueblo along with seven other pueblos who collectively went to congress after the Dam was constructed to make legislation to ensure that hydro would not be added at a later date. Second reason is the cost associated with building a new hydro facility relative to other options available to the County and third; the generation profile of a run-of-the-river plant does not match the County's load profile particularly when added to the Abiquiu and El Vado generation profiles.

With the wind and solar renewable options available today along with the progress made with BESS and the evolving markets associated with large utility scale projects, staff recommends this initiative be tabled to a later time.

BPU STRATEGIC INITATIVE

DATE APPROVED:	March 16, 2016
TITLE:	Strategic Policy for Distributed Energy Resources (DER) and Rate Structure
Status Update:	August 22, 2019

The Board of Public Utilities adopted, as part of a strategic policy, the following recommendations from the 7 July 2015 "Future Electrical Energy Resources" report:

1. Complete smart meter implementation for all customers.

The BPU approved the AMI project in September 2018. The contract allows for an 18 month implementation period. Staff is currently working with the AMI contractor (Ferguson) and Tyler Munis to coordinate the interface between the AMI and DPU's billing system. Staff is working closely with Tyler Munis to see if the upgrade to version 19 will have an impact on the data interface. If it is determined to wait until after the Munis upgrade, Ferguson will not mobilize until the first quarter of 2020. In the meantime, Ferguson is working on finalizing the propagation study for Town site and White Rock. The materials for the base stations (repeaters) are scheduled to be delivered mid-August 2019 at which time DPU Electric Distribution crews can begin setting the base stations per the propagation study results. It is anticipated that Ferguson will begin work after the upgrade so they only need to mobilize once. Ferguson earliest project completion is 6 months after mobilization.

2. Develop an engineering model of the distribution system that will indicate how much DER generation can safely be absorbed.

The electric distribution modeling efforts have not progressed since the Deputy Utilities Manager for Electric Distribution resigned in January 2019. The department has been unsuccessful filling this position. This position is being advertised for the second time and will close August 29, 2019. Modeling will resume shortly after we are fully staffed. Based on the rate of roof top solar installations there are no immediate concerns for power quality issues on any of the feeders related to solar installations.

3. Complete studies to determine how much DER generation can be tolerated before causing an unacceptable number of bandwidth exceedances.

4. Establish limits, based on DER generation absorption and bandwidth exceedance considerations, on how much DER generation can be tolerated in the system. Update these limits as necessary. Make it clear that permit issuance will be suspended once those limits have been reached pending expansion of system tolerance of increased DER generation.

Items 3 and 4 are closely related and best considered together, even though implementation will be a multi-step initiative.

DPU staff coordinated with DOE-LANL on a grant opportunity funded through the New Mexico Small Business Association (NMSBA) on Solar PV Firming Options for Los Alamos County. The study was completed November 16, 2016 for Positive Energy Solar who shared the results with the County. The report concluded agile operations of the landfill battery can reduce the risk of regulation bandwidth exceedances up to 5,400 kW of installed solar PV capacity. The report concluded 244 exceedances could potentially occur, but firming actions could reduce this risk to 4 exceedances related to roof-top solar intermittency annually.

Currently there is 1 MW of Utility Scale solar PV with a total of 777.5 kW of roof-top solar in service or under construction. Power operations manages the intermittency using ancillary service Schedule 3 (+/- 2 MW bandwidth) from the Public Service Company of New Mexico and as needed by manually calling on the BESS. When DPU moves forward with the 2nd MW at the landfill the combined installed capacity of solar will be approximately 50% of the 5,400 kW identified in the study. Staff will continue to monitor bandwidth exceedances and take the necessary steps to mitigate the problem.

5. Require smart inverters (at least “Phase 1”) on new DER systems as they become available. After smart inverters are available, all DER system inverter replacements should be of the smart type.

The requirement for smart inverters (Phase 1) has been incorporated in the Application for Operation of Customer-Owned Generation and DPU Construction Standards. The Phase 1 smart inverters comply with the testing protocols of UL 1741-SA. (voltage and frequency ride-through, soft start reconnection, ramp rate controls, fixed power factor, dynamic Volt-VAR management, and updated anti-islanding requirements).

Staff is currently monitoring the industry development of advanced inverter functions such as standards for communication requirements, data monitoring, remote connection and disconnection and maximum power controls and will modify the permit application and construction standards to reflect these requirements as they mature.

6. Make it clear in DER installation permits that rates and rate structures are not guaranteed to any point in the future.

DPU needs to confirm with the County Attorney if this language belongs in the Application for Operations of Customer-owned Generation, DPU Rules and Regulation, Electric Rule E-5 or in the rate ordinance adopted by Board and Council.

7. Determine whether utility-scale, circuit, or neighborhood scale DER storage, or combination(s) of these approaches make the most sense technically and economically for firming DER generation. Take that determination into account in any rate structure.

This initiative has not been explored in detail since it’s not currently an issue for LAC and BESS are currently not an economical resource for firming intermittent resources. Staff will continue to monitor the development and economics of battery storage both at the utility scale and residential level.

8. For large customers, require or encourage (via rates) that at least large loads be dispatchable. County government and the Department of Public Utilities can and should lead by example.

9. For large DER producers, require or encourage (via rates) dispatchable storage and generation and Phase 2 or 3 inverters as they become available. The County government and the Department of Public Utilities can and should lead by example.

These two items (8 – 9 above), are all closely related and need to be considered together, even though implementation will be a multi-step initiative.

To have dispatchable loads, Power Operations will required partial control of the customers energy demand such as HVAC, EV charging, utility pumping loads etc. This will require mutually agreed upon terms and conditions for curtailing load.

At the January 17, 2018 BPU meeting staff recommended waiting at least two years before revisiting this initiative based on the cost of implementing a Distributed Energy Resource Management System. Staff believe this initiative is still several years away from being practical for LAC.

10. All DPU customers (DER and non-DER) should be charged the same appropriate rate(s) for all services and energy (not just net energy) supplied by the utility.
11. Implement Time-of-Use pricing for both consumption and generation once smart meters are available to do so.
12. DER producers should be paid for the power they supply to the utility based on at least the average estimated avoided cost for the time period in which it is supplied. The rate(s) should reflect whether the power is firm and whether it is dispatchable.
13. Consider whether or not a non-economic Value-of-Solar Tariff should be a part of the reimbursement rate structure for DER generation and how it should be phased out as solar benefits relative to other non-carbon sources decline.

These four items (10 – 13 above), are all closely related and need to be considered together, even though implementation will be a multi-step initiative.

The Utilities Department plan is to devise and implement appropriate rate structures addressing time of use options, appropriate compensation to the Utility for customer connection to the power distribution system, energy consumption, and customer service or connection charges (“unbundling of rates”), and appropriate compensation to distributed energy producers for excess energy produced and fed back into the power grid. Rate options and implementation has been under consideration and adoption/implementation is planned to coincide with deployment and implementation of our Advanced Metering initiative.

Agenda No.:	7.B
Index (Council Goals):	* 2019 Council Goal - N/A
Presenters:	Steve Cummins, Deputy Utilities Manager - Power Supply
Legislative File:	**12131-19**

Title
Presentation of the Feasibility and Estimated Cost of a Pumped Hydro Storage Facility in Los Alamos County

Recommended Action
None

Staff Recommendation
The staff recommends the Board consider this initiative complete, until such time the technology is readily available at the scale the county requires; or until the cost of power rises to the point where it is economically viable the department will reconsider if appropriate.

Body
This is an informational report on the investigation of the viability of a pumped hydro storage system in Los Alamos county per the 2016 FER directive. The report explores the economic feasibility of such a system and its uses within the county.

Alternatives
BPU can explore other options for renewable energy storage as they become available.

Fiscal and Staff Impact
Information report. No fiscal or staff impact expected

Attachments
A - Pumped Hydro Analysis Presentation 2019

Pumped Hydro Analysis

Tyler Mobraten
DPU-Engineering Intern
August 22, 2019

LOS ALAMOS

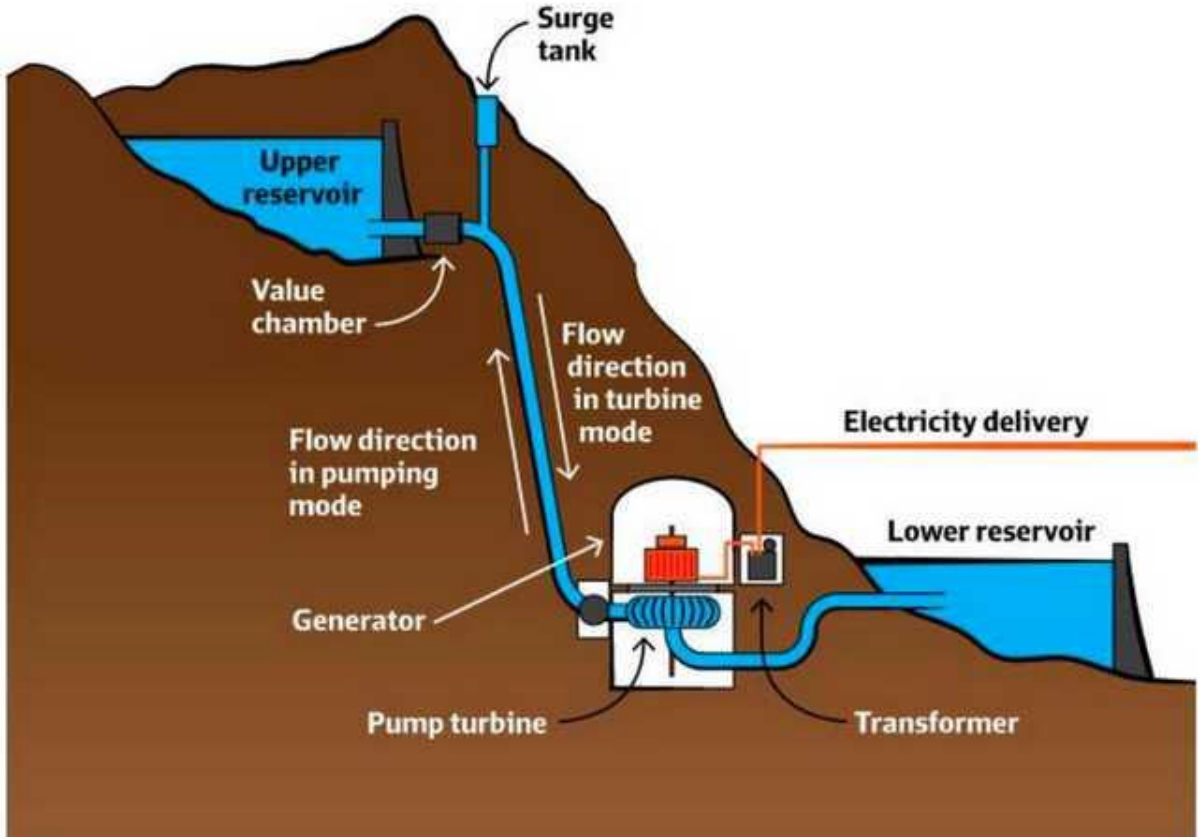
2016 FER Strategic Policy

Explore feasibility (including access to present DOE/LANL lands) and estimate costs of pumped hydro storage somewhere within Los Alamos County

Pumped Hydro

Energy is used to pump water to higher elevation

Water is released through a hydroelectric turbine to generate electricity when needed



Pros

Simple, mature technology

Minimal storage losses

70-80% round trip efficiency

Resiliency if locally sited (microgrid)

Fast Response

Long Lifespan

Storage of renewable energy

Cons

Low energy density

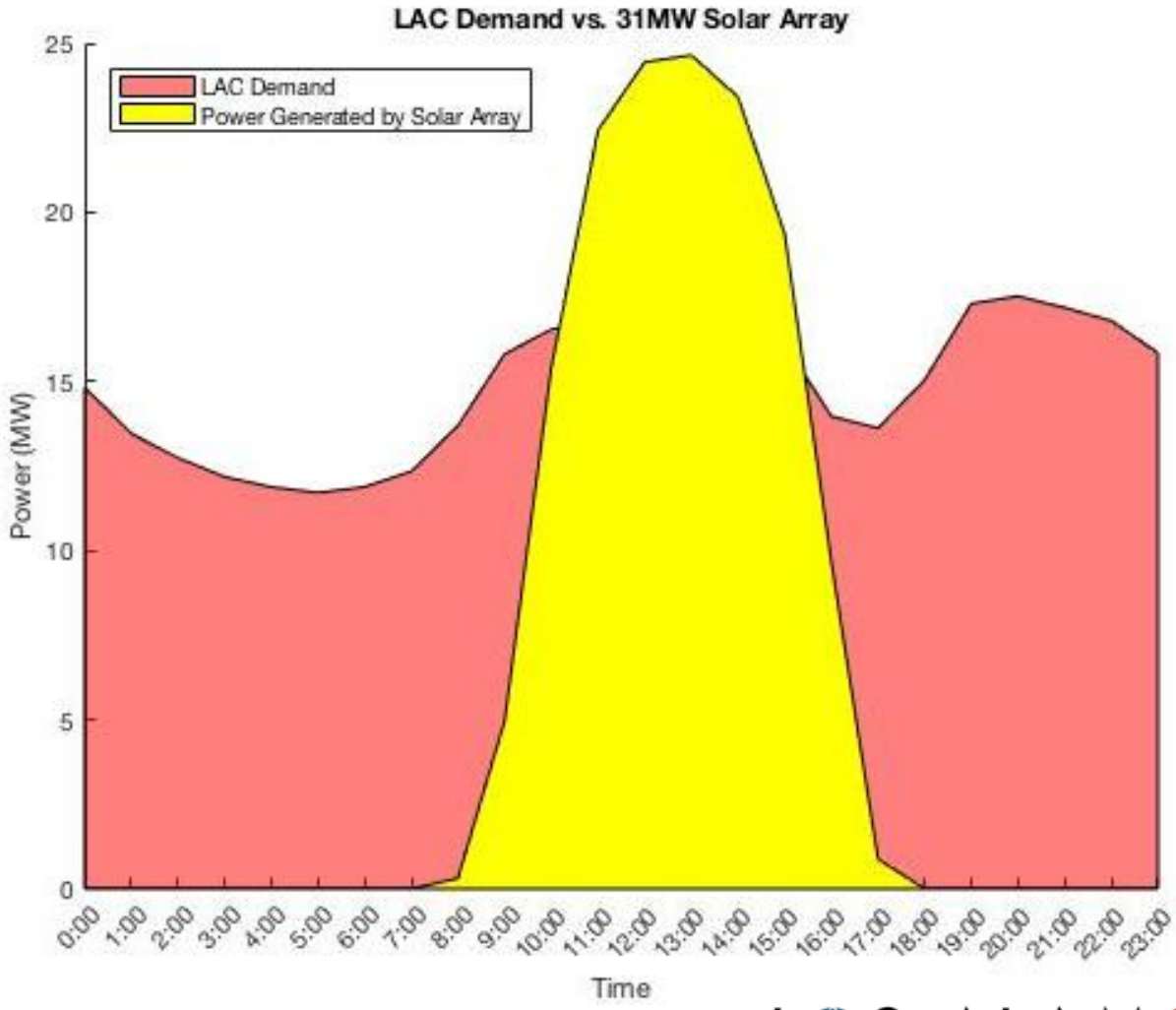
Large Size

High capital cost

Applications

Peak Shaving

Renewable Energy Storage



LOS ALAMOS

LAC Generation Resource Options

- Hydroelectric plants backbone of supply (FER Directive #5)
- 8MW CFPP (FER Directive #8)
- Pumped hydro storage (FER Directive #11)
- Plan to match pumped hydro storage with renewable PV array per carbon neutral goal

Generation vs. Load

Abiquiu & El Vado 10-yr. avg. 62,000 MWh/yr.

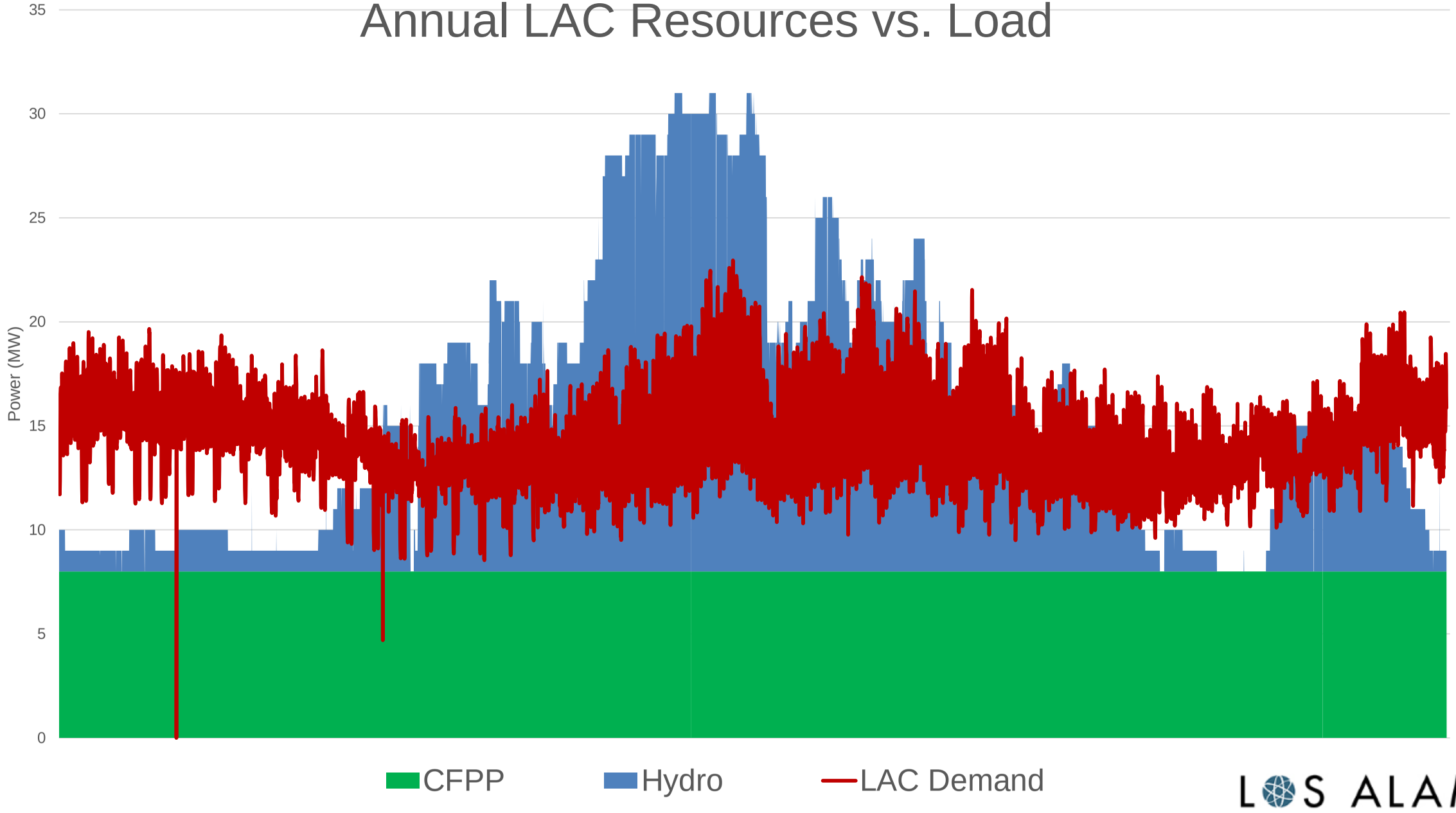
CFPP (8 MW @ 95% cf) 66,000 MWh/yr.

Total carbon free generation 128,000 MWh/yr.

County Load 120,000 MWh/yr.

Excess of 8,000 MWh, 6.7% positive reserve margin

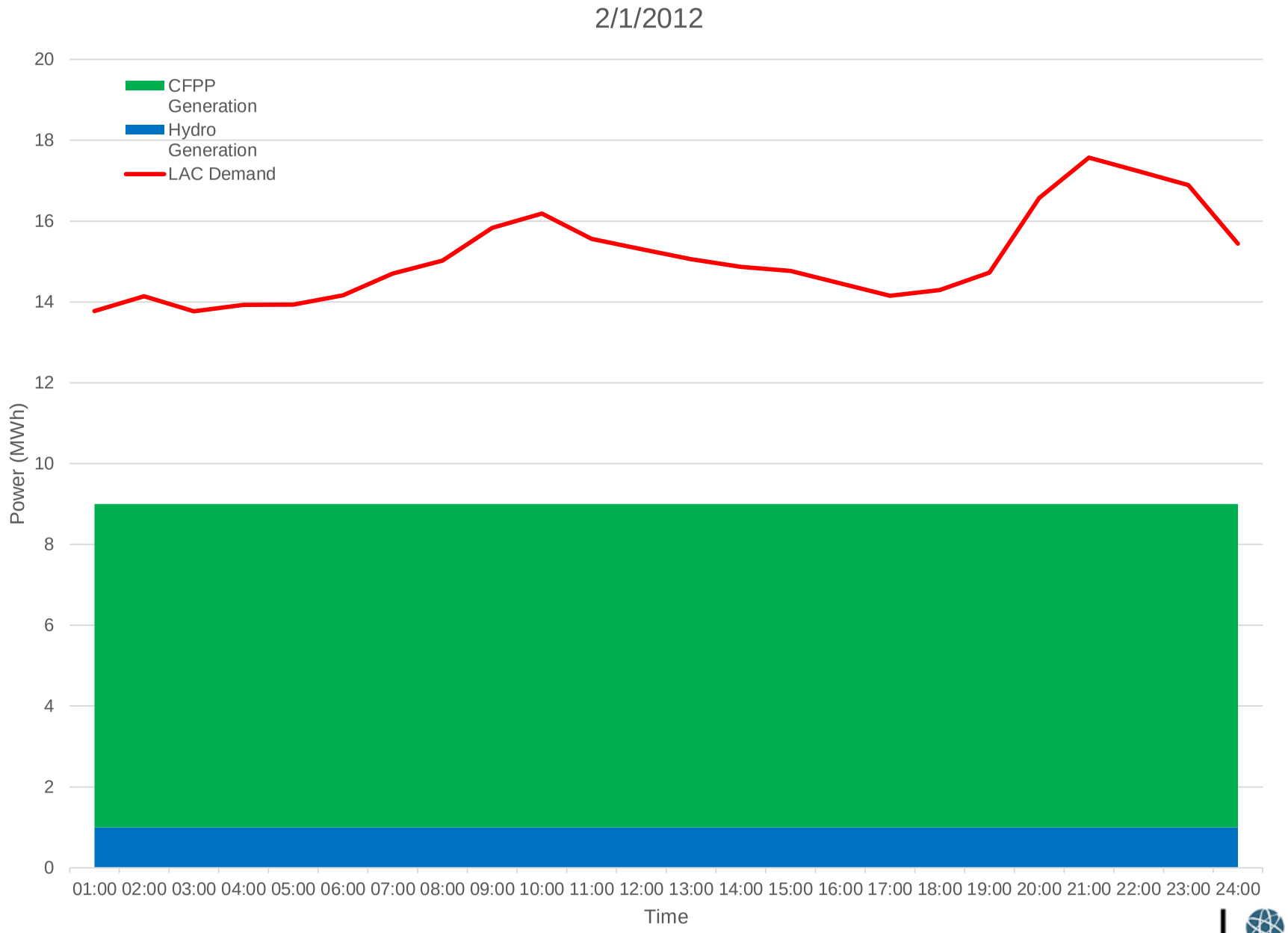
Annual LAC Resources vs. Load

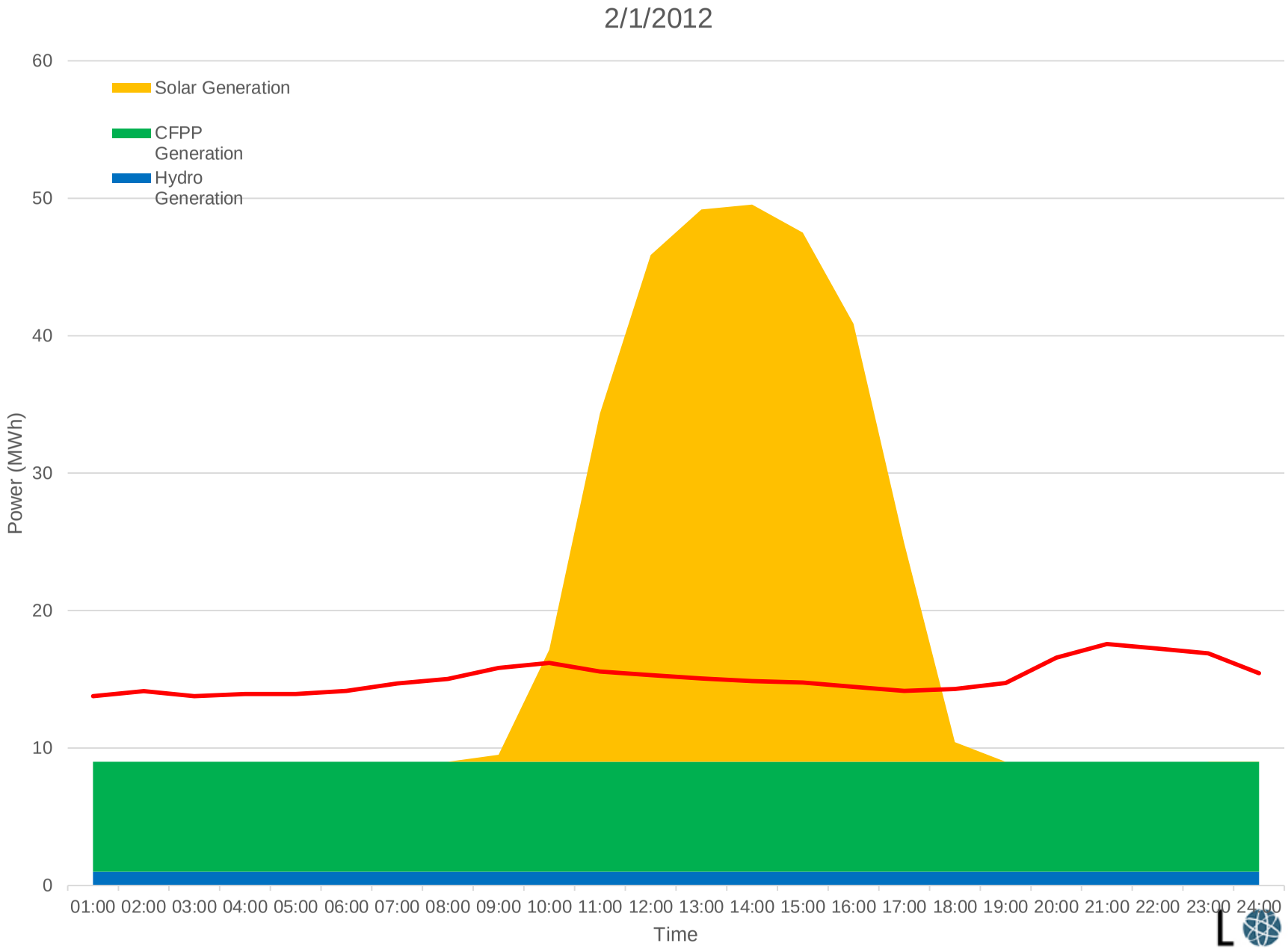


LOS ALAMOS

Generation Deficit

Month	Generation Deficit (MWh)
January	3067.83
February	3282.102
March	2288.303
April	-3521.85
May	-5234.47
June	-7261.36
July	-1920.44
August	-3653.95
September	-524.43
October	1405.247
November	1352.947
December	5.144923


2/1/2012
CFPP Generation
Hydro Generation
LAC Demand
Power (MWh)
0
2
4
6
8
10
12
14
16
18
20
01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00 24:00
Time


2/1/2012
Solar Generation
CFPP Generation
Hydro Generation
Power (MWh)
60
50
40
30
20
10
0
01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00 24:00
Time

LOS ALAMOS

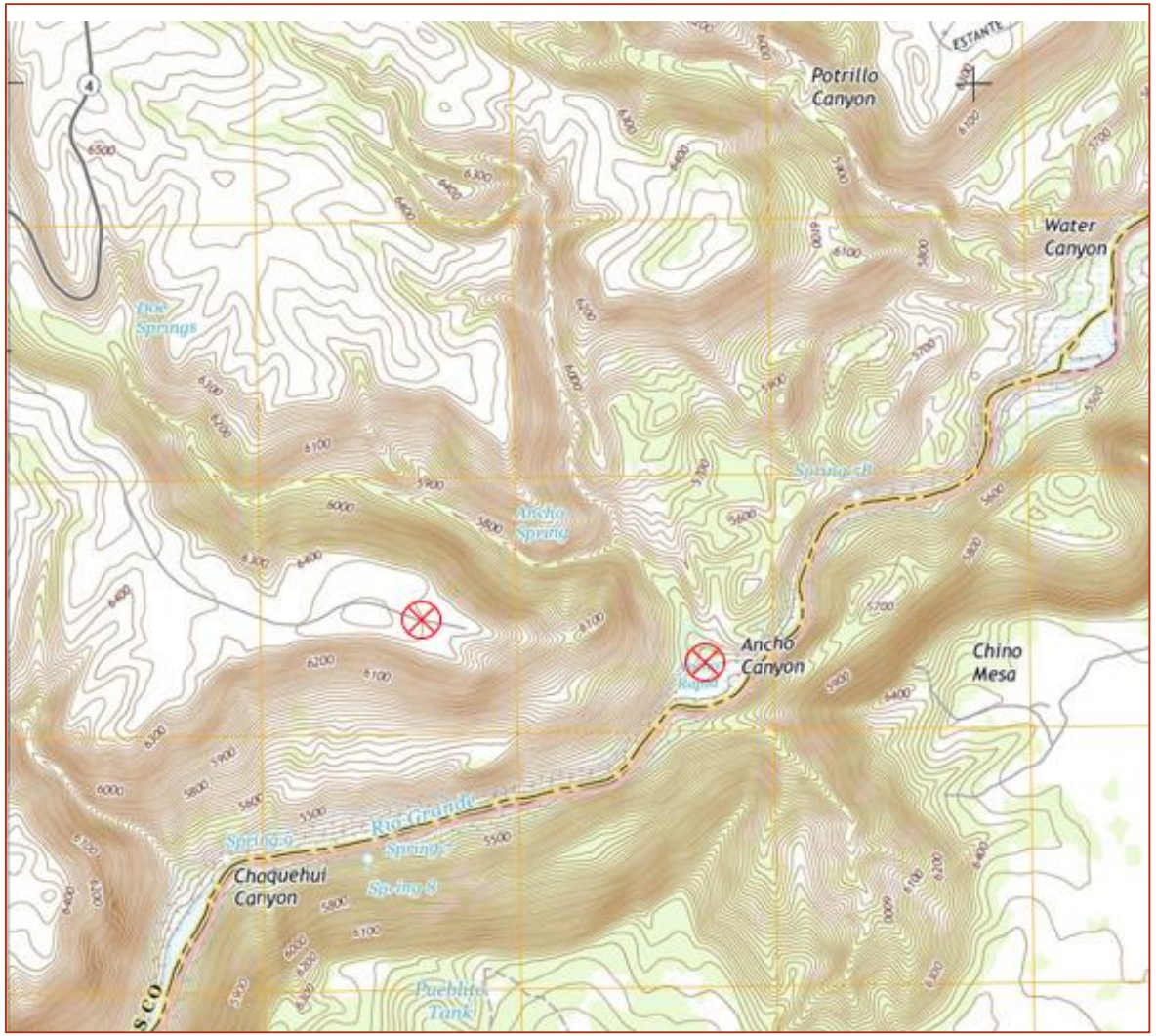
LAC Pumped Hydro System Design Parameters

Designed to store power to meet county load

Solar array oversized to provide excess power to be stored

Only needed 4 months out of the year due to runoff through the hydroelectric plants

Site Plan



LOS ALAMOS

Project Cost

Pond Qty 2 (/cuyd)	$4	531,000.00	$2,124,000.00	Calculated based on amount of water
Pond Liner (/sqft)	$0.72	1,440,000.00	$1,035,360.00	Vendor Quote
Turbine	$2,885,000	1.00	$2,885,000.00	Vendor Quote
Electric Generation Line (/mi)	$150,000	5.00	$750,000.00	T&D Estimate on /mi installation cost 69kV line
Substation	$2,500,000	1.00	$2,500,000.00	Estimated from installation cost of WR2 Sub
40" Pipe + Microtunneling (/ft)	$1,200	3,748.00	$4,497,600.00	Research from vendors
Access Road	$4	185,186.00	$740,744.00	Calculated based on earth moving 45 degree slope 12' wide road, not exceeding 6% grade
O&M (/yr)	$200,000	25.00	$5,000,000.00	Based on O&M cost of current hydroelectric facilites
Environmental Review	$250,000	1.00	$250,000	
Property Acquisition	$0	0.00	$0.00	
Installation Infrastructure	$0	1.00	$0.00	
Energy for Pumps	$0	0.00	$0.00	
Pumps	$0	0.00	$0.00	
Electric Line Right of Way	$0	0.00	$0.00	
Financing Cost			$0.00	
Contingency			$1,953,270.40	
Total			$21,760,974.40	

Energy Storage Cost - $60.16 /MWH

- Price per MWH calculated using only power demanded by the county
- Excess power is assumed to be curtailed
- Cost is calculated using County energy requirements over the 25 year life span

Feasibility

Land and easements would still need to be obtained from DOE/LANL

Project would need to pass environmental review

Large enough pumps were not readily available from vendors

Reversible turbines are not manufactured on a small enough scale to be feasible

Conclusion

- Pumped hydro does not work well with our current generation resource profile
- With the limitations of current technology, pumped hydro is not economically feasible within Los Alamos County
- Other alternatives will provide superior value

Agenda No.:	7.C
Index (Council Goals):	* 2019 Council Goal - Investing in Infrastructure
Presenters:	Steve Cummins, Deputy Utilities Manager - Power Supply
Legislative File:	**11474-18**

Title
Approval of Agreement No. AGR19-43 with Los Alamos Solar II, LLC for the Purpose of a Solar Power Purchase Agreement to Deliver Photovoltaic Generated Electricity to the County

Recommended Action
I move that the Board of Public Utilities approve Agreement No. AGR19-43 with Los Alamos Solar II, LLC for the purpose of a Power Purchase Agreement to deliver photovoltaic generated electricity to the County, and forward to Council for approval.

Staff Recommendation
Even though the pricing is higher than other potential opportunities, staff believes this PPA as presented is an acceptable option. Staff presents this PPA for Board consideration.

Body
At the September 2018 BPU regular Board meeting, staff presented indicative pricing for a solar PV Power Purchase Agreement (PPA) at the landfill site, which came in at $.06/kWh. BPU directed staff to proceed with issuing a request for proposals, which was issued in the second quarter of 2019. Electric Production went out with an RFP and four proposals were received and evaluated based on the following evaluation criteria:

CRITERION & WEIGHTED POINTS
1. Introduction and statement of qualification - 5
2. Project experience - 5
3. Technical approach - 15
4. Schedule - 5
5. Cost proposal - 30
6. Suitability and aesthetics - 10

Total - 70

The evaluation committee selected PNE and Positive Energy doing business as Los Alamos Solar II, LLC. Based on the evaluation criteria all offerors were qualified with cost being the deciding factor. The selected offerer proposed a price of $.0585/kWh.

Over the 25-year term, the 1.32MW (estimated DC nameplate capacity) PV system's average annual production is estimated at 2,250,000 kWh (2,250 MWh), which is approximately 0.4% of the County's annual load.

In September 2010, Mod 17 to the ECA was executed authorizing renewable energy produced at the landfill site as an approved resource. On June 17, 2019 the Operating Committee was presented with the Solar PV PPA pricing and provided concurrence to proceed with this project as an approved resource.

Alternatives

If the agreement is not approved no further action will be taken to develop new PV resources at the landfill unless directed by the Board.

DPU will continue other efforts to procure carbon free power resources. Staff is exploring potential opportunities with indicative prices between $0.032/kWh and $0.045/kWh for firm renewable energy.

Fiscal and Staff Impact

Energy procured through this PPA will offset fossil fuel generated power that we buy on the spot market. An analysis of 2018 market purchases, this resource would add 30 cents to the average annual market price of $39.71 per MWh a 0.8% increase.

Procuring and managing energy to serve the County's load is part of Electric Production's normal workload.

Attachments

A - AGR 19-43

CONTRACT NO. AGR19-43

SOLAR POWER PURCHASE AGREEMENT

BETWEEN

INCORPORATED COUNTY OF LOS ALAMOS
(PURCHASER)
AND

LOS ALAMOS SOLAR II, LLC
(SELLER)

SOLAR POWER PURCHASE AGREEMENT
CONTRACT NO. AGR19-43

CONTRACT CONTENTS

AGR19-43

SOLAR POWER PURCHASE AGREEMENT

This **SOLAR POWER PURCHASE AGREEMENT** (“Agreement”) is entered into by and between the **Incorporated County of Los Alamos**, an incorporated county of the State of New Mexico ("County" or “Purchaser”), and **Los Alamos Solar II, LLC**, a Delaware limited liability company and subsidiary of PNE USA, Inc., hereafter “Seller”, registered to do business within the State of New Mexico, collectively the “Parties”.

WHEREAS, the County was created pursuant to the New Mexico Constitution, Article X, Section 5; and

WHEREAS, the County is a properly incorporated home rule county and municipal body as provided and authorized in the New Mexico Constitution, Art. X, Section 6; and

WHEREAS, the Municipal Electric Generation Act, NMSA 1978, §§ 3-24-11 *et seq.*, authorizes municipal governments to purchase power by long term power purchase agreements for the supply of municipal electricity; and

WHEREAS, the County has established a “special fund” to pay its obligations under this Agreement and is, therefore, not subject to the limitations of the Bateman Act, NMSA 1978, §§ 6-6-11 *et seq.*; and

WHEREAS, the County intends to increase its solar power generation to meet its future carbon neutral goals; and

WHEREAS, the County, on March 18, 2019, advertised through a request for proposals, its desire to receive proposals from vendors for solar power generation through a power purchase agreement; and

WHEREAS, the County Purchasing Agent determined in writing that the use of competitive sealed bidding was either not practical or not advantageous to County for procurement of the Services and County issued Request for Proposals No. 19-43 (“RFP”) on March 18, 2019, requesting proposals for a Utility-Scale Photovoltaic System and Power Purchase Agreement; and

WHEREAS, Seller timely responded to the RFP by submitting a response dated May 30, 2019 (“Seller’s Proposal”); and

WHEREAS, based on the evaluation factors set out in the RFP, Seller was the successful offeror for the products and services listed in the RFP; and

WHEREAS, the County’s Board of Public Utilities approved this Agreement at a public meeting held on August 22, 2019 (“CBPU Approval”); and

WHEREAS, the County Council approved this Agreement at a public meeting held on August 27, 2019 (“CC Approval” and together with the CBPU Approval, the “Contract Approvals”); and

WHEREAS, Seller has agreed to construct, operate, and maintain the Photovoltaic System described in **Annex A** (“System”) and sell solar generated power from the System, as described and at the prices provided below, to County.

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, County and Seller agree as follows:

SECTION I. POWER PURCHASE AGREEMENT ESSENTIAL TERMS.

The purpose of this Power Purchase Agreement ("PPA" or "Agreement") is for Seller to install, generate, operate, maintain, and deliver 100% of photovoltaic generated electricity ("Power") and Renewable Energy Credits ("REC") to the County on land subleased by County to Seller ("Premises"); see also **Annex A**. Seller shall own and maintain all required photovoltaic infrastructure and shall be solely responsible for the work to place, operate, and maintain the photovoltaic power generating system ("Project" or "System"). County shall pay to Seller the agreed upon per kilowatt/hour fee, as provided below, during the term of this Agreement. Additionally, the following terms and conditions apply to the Parties:

A. Purchase and Sale of Electricity.
County shall purchase from Seller, and Seller shall sell to County, all of the photovoltaic electricity and RECs generated by the System during the Term subject to the terms and conditions set forth herein. All Power generated by the System shall be delivered to County at the Delivery Point as provided below. Title to and risk of loss for the Power and RECs of the System passes to County from Seller at the Delivery Point. County may purchase electricity for the Premises from other sources to the extent County's electricity consumption requirements at the Premises exceed the output of the System. The term "Delivery Point" shall mean the point of interconnection of the System and Seller's Meter to the County's electric distribution system at the low side of the step-up transformer owned by the County.

B. Term.
The term of this Agreement is twenty-five (25) years, beginning on the Commercial Operation Date (as defined herein), hereafter "Term." Each year of the Term shall be a "Contract Year" and shall commence on the Commercial Operation Date and each subsequent Contract Year shall commence on the anniversary of the Commercial Operation Date.

C. Effective Date.
The effective date of this Agreement is the date of last signatures and receipt of the Contract Approvals, hereafter "Effective Date." The Parties may agree in writing to extend the Term of this Agreement for a period and at a Contract Price to be agreed upon as provided herein in writing.

D. Contract Price; Assumption and Limitations.

1. **Purchased Power Cost**. The County shall purchase the Power from the Seller's photovoltaic System, including all RECs, at **$0.0585 per kilowatt hour ($/kWh)** fixed with no escalation ("Contract Price") over the Term of the Agreement. Seller shall, pursuant to the terms and conditions herein, deliver the amount of Power to Purchaser during each Contract Year of the Term as provided in **Annex B**.
2. **Contract Price Exclusions**. Seller shall provide any and all necessary labor, equipment, supplies, and services to deliver, install, and operate the System, except the following which shall be the responsibility of the County:
    a. Pre-Project Premises clearing, cleaning, and removal of existing dirt piles.
    b. County installation of transformers, switchgear, distribution lines, and main distribution panels after the Seller's Delivery Point and Meter (as defined herein) necessary to connect the Project and deliver Seller's Power to the County's electrical utility system.
    c. Transformers for interconnection or voltage step-down panels or equipment and connection to the local utility grid (which connection is not required or contemplated by the Parties).

d. Federal permitting including any and all costs related to the federal agencies responsible for the landfill assessments, including, but not limited to federal National Environmental Policy Act ("NEPA") studies, surveys, or assessments.

e. Cathodic protection, snow melt, and heat trace.

f. Erosion control at the Premises.

g. Security Cameras and Sensors at the Premises.

h. Fencing and/or any visual screening materials, decorative enhancements to solar support structures including: painting, paint matching, masonry/stone work, and any lighting not required to meet the minimum code compliance.

i. Structural upgrades to the existing County infrastructure, buildings, and improvements located on the Premises ("Improvements").

j. Any and all costs associated with any environmental condition existing on the Premises prior to the Effective Date or any environmental condition that County is responsible for or contributes to after the Effective Date (each a "County Condition). Seller shall be responsible for any environmental condition it causes or contributes to after the Effective Date.

k. Costs associated with the sublease or license to be granted by County to Seller with respect to the System pursuant to the Lease Agreement, Lease No. DERP-M1NA27945, dated November 1, 2011, by and between County and the U.S. Department of Energy ("DOE Lease").

l. Interconnection costs for the interconnection of the System to the County's electric distribution system in excess of Twenty Thousand Dollars ($20,000.00) in the aggregate.

E. Unauthorized charges, fees, and expenses.

Seller must obtain written authorization from the Purchaser prior to incurring any unauthorized cost or expense. It is specifically understood and agreed that unauthorized charges, fees, and costs will not be reimbursed unless approved in writing by the authorized agent of the County and Seller, prior to incurring the cost or expense. County shall be directly and solely responsible for the costs associated with or arising from any County Condition.

F. Conditions Precedent.

Except as set forth herein, the obligations of Seller under this Agreement shall not be effective unless and until the conditions precedent set forth below have been satisfied:

1. The agreement of the Parties on the final version of the Sublease for the area identified in **Annex C** and execution of the Sublease; and
2. The receipt of an approval of the Sublease by the U.S. Department of Energy ("DOE") pursuant to the DOE Lease in form and substance reasonably acceptable to Seller ("DOE Approval"); and
3. The receipt of the Contract Approvals.

The Parties shall negotiate the terms of the Sublease in good faith and seek to mutually agree on the final version and execute such Sublease by November 30, 2019; provided that each Party shall not be obligated to execute the Sublease accept on terms acceptable to each such Party in its sole discretion. County shall use commercially reasonable efforts to obtain DOE Approval by November 30, 2019 to allow the execution of the Sublease. If the foregoing conditions precedent are not satisfied or waived by Seller in writing by November 30, 2019 (as such date may be extended by Seller in its sole discretion), either Party shall be entitled to terminate this Agreement by delivery of written notice to the other. Each Party shall be responsible for any failure to perform its obligations hereunder prior to such termination.

SECTION II. SYSTEM DESCRIPTION, DELIVERY POINT AND PREMISES AND GENERAL TERMS AND CONDITIONS.

A. Billing, Payment and Taxes.

1. **Monthly Charges**. County shall pay, at the Contract Price, to Seller all properly invoiced charges for the Power generated by the System and delivered to the County at the Delivery Point. The monthly payment for such energy will be equal to the applicable $/kWh rate multiplied by the number of kWh of Power generated during the applicable month, as measured by the Meter. For purposes of billing and invoicing, prior to the Commercial Operation Date, the Parties will designate in writing, the proper person and entity for addressing payments and invoices.
2. **Monthly Invoicing**. Seller shall invoice County monthly for Power delivered as measured by the Seller's Meter. All invoices shall include: (i) the amount of Power produced by the System and delivered to the Delivery Point; (ii) the Contract Price applicable to and charges incurred by County under this Agreement; and (iii) the total amount due from County.
3. **Payment Terms.** All amounts due under this Agreement are due and payable thirty (30) days following receipt of invoice. Any undisputed portion of the invoice amount not paid within the thirty (30) day period shall accrue interest at the annual rate of two and one-half percent (2.5%) above the Prime Rate, but shall not to exceed the maximum rate permitted by law. All reference to payments, fees, costs shall be in and payable only with U.S. Dollars.
4. **Seller's Taxes**. Seller is solely responsible for: (1) payment of all income taxes or similar taxes imposed on Seller's revenues due to the sale of Power under this Agreement; and (2) all personal property taxes imposed on the Seller's System ("Seller's Taxes"). Seller is solely responsible for all applicable taxes but shall be entitled to charge and collect from the Purchaser any gross receipts tax, sales tax, property tax, other tax levied by the county, or other similar tax which may apply to the sale of Power under this Agreement.

B. RECs and Incentives.

1. **RECs**. County is entitled to the benefit of and will retain all interests in the RECs associated with the electricity generated by the system and sold to the County. Seller shall not make any filing or statements inconsistent with County's ownership interests in the RECs. "REC" means a renewable energy credit or certificate under any state renewable portfolio, standard or federal renewable energy standard, voluntary renewable energy credit certified by a non-governmental organization, pollution allowance, carbon credit and any similar environmental allowance or credit and green tag or other reporting right under Section 1605(b) of the Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program, in each case relating to the production of energy from the System, provided that RECs shall not include Incentives.
2. **Incentives**. Seller is entitled to the benefit of and will retain all interests in the Incentives associated with the System. "Incentives" means (i) a payment paid by a state or local Governmental Authority based in whole or in part on the cost or size of the System such as a rebate, (ii) a performance-based incentive paid as a stream of periodic payments by a state or Governmental Authority based on the production of the System, and (iii) investment tax credits, production tax credits, and similar tax credits, grants or other tax benefits under federal, state or local law, including depreciation.

C. Measurement of Delivered Power.

1. **Meter and Metering**. The System's electricity output during the Term shall be measured by

Seller's meter, which shall be a revenue grade meter that meets ANSI-C12.20 standards for accuracy ("Meter") installed at the Point of Delivery. County shall have access to the metered energy output data via the System monitoring equipment and programs installed and maintained by Seller as part of the System.

2. **Meter Calibration**. Seller shall calibrate and maintain the Meter in accordance with manufacturer's recommendations and specifications. Notwithstanding the foregoing, County may install, or cause to be installed, its own revenue-grade meter at the same location as the Meter. If there is a discrepancy between the data from County's meter and the data from the Meter of greater than two percent (2%) over the course of a Contract Year, then County may request that Seller calibrate the Meter at Seller's cost.

D. Deliverables and use of documents.

All deliverables required under this Agreement, including material, products, reports, policies, procedures, software improvements, databases, and any other products and processes, whether in written or electronic form, shall remain the exclusive property of and shall inure to the benefit of County as works for hire; Seller shall not use, sell, disclose, or obtain any other compensation for such works for hire. In addition, Seller may not, with regard to all work, work product, deliverables or works for hire required by this Agreement, apply for, in its name or otherwise, any copyright, patent or other property right and acknowledges that any such property right created or developed remains the exclusive right of County. Seller shall not use deliverables in any manner for any other purpose without the express written consent of the County.

E. Project Schedule, Installation, Operation and Maintenance.

1. **Seller Guaranty**. Seller shall deliver to County a guaranty of the obligations of Seller under this Agreement in the form attached as **Annex F** by an Acceptable Guarantor within ten (10) days of the Commencement of Installation and shall maintain such guaranty during the Term of the Agreement; provided that Seller may deliver a substitute guaranty from an Acceptable Guarantor substantially in the form of **Annex F** in which case the guaranty being replaced shall be deemed released in full. "Acceptable Guarantor" means (i) PNE USA, Inc., (ii) a person or entity with experience in the ownership and operation of at least five (5) megawatts of solar electric generation facilities with a net worth of at least five million dollars ($5,000,000) or (iii) other Guarantor reasonably acceptable to County.
2. **Commencement of System Installation**. Seller shall exercise commercially reasonable efforts to achieve Commencement of Installation of the System within one hundred and twenty (120) days after the Effective Date. "Commencement of Installation" occurs upon County's receipt from Seller of written notice of commencement of material procurement or installation of the Project and System on the Premises.
3. **Project Development and Completion**. Seller shall diligently pursue the development and installation of the System, as provided herein,
   a. Permits and Approvals.
   b. Seller shall use commercially reasonable efforts to obtain the following at its sole cost and expense ("Approval"):
      i. any zoning, land use and building permits required for Seller to construct, install and operate the System; and
      ii. any agreements and approvals from the County necessary in order to interconnect the System to the County's electric distribution system.
      iii. County shall cooperate with Seller's reasonable requests to assist Seller in obtaining such Approvals and any other permits or approvals, including, without limitation the execution of documents required to be provided and or required by the County's various departments or as may be required by applicable law and the

additional approvals set forth in **Annex D**. Seller shall have no responsibility for any permit, approval or other requirement associated with any environmental condition existing on the Premises or any permit held by the County in connection with the Premises.

4. **Access Rights**. Access rights of the Seller and its agents and contractors, shall be those provided in the Sublease. Seller additionally has a temporary exclusive license to a staging area for construction as contemplated below and a non-exclusive license to cross any County DOE Leased land for the purposes of performing all of Seller's obligations and enforcing all of Seller's rights set forth in this Agreement and otherwise as required by Seller in order to effectuate the purposes of this Agreement. Seller and its employees, agents and contractors must comply with County's site safety and security requirements when on the Premises (other than in respect to the area governed by the Sublease) pursuant to the foregoing license provided Seller receives notice of such site safety and security requirements in writing. During the term of the Sublease and the Term, County shall preserve Seller's rights under the Sublease and License and Seller's access to the Premises and shall not interfere or permit any third parties under County's control to interfere with such rights or access. County shall reasonably maintain the existing fencing around the Premises.
5. **Seller Staging of Equipment and Supplies**. As provided in the included by reference Seller Proposal, Seller shall be allowed to place, upon approval of County, shipping containers and other equipment necessary for the Project, in a staging area for construction as identified in **Annex G** which is near the area which shall be the subject of the Sublease as reflected in Annex C. Seller shall store only heavy or medium equipment required for the Project. Seller shall be responsible for any fuel spill or leaks from Seller's fueling operations. Seller shall install, with County approval, safety fencing and worker portable toilets as required or needed. Seller shall maintain the area in a clean and safe manner, including pursuant to applicable State and federal OSHA requirements. Seller shall remove any equipment or supplies and return the Premises to the pre-Project condition, as provided herein, within 15 days from the completion of the System Installation.

F. Commercial Operation.

Seller shall notify County in writing when it has achieved Commercial Operation (the "Commercial Operation Date"). "Commercial Operation" means the System is mechanically complete and capable of providing Power to the Delivery Point at the nameplate capacity specified herein, including all required permissions to operate from the relevant Governmental Authority. Seller shall provide County with reasonable documentation to evidence that the System is ready to begin Commercial Operation. If the System achieves Commercial Operation as defined above as to less than 100% of the expected nameplate capacity but at least 90% of the expected nameplate capacity, then (i) Seller shall be entitled to notify the County that Commercial Operation has occurred, in which case any obligation to complete the remaining 10% (or less) of nameplate capacity shall be deemed waived hereunder; and (ii) Seller shall be entitled to declare a revised nameplate capacity and apply a pro rata reduction to the estimated amounts of electricity to be delivered set forth in **Annex B**. Seller shall deliver a copy of any revised version of **Annex B,** as provided here, in writing to the County.

G. Seller's General Obligations Regarding the System.

Subject to the terms and conditions of this Agreement, Seller shall design, engineer, install, commission, monitor, operate and maintain the System, in each case in a good and workmanlike manner and in accordance with all applicable laws, regulations, policies and prudent solar industry practices in New Mexico during the Term of this Agreement or as may be extended. The System shall comply with all applicable rules, regulation and local building codes. The delivery of Power shall be contingent upon County continuing to permit the interconnection of the System which is

Seller's sole means of delivering Power generated by the System.

H. Deliverables shall include:

Seller shall provide the following documents and records to the County:

1. Initial Design Package;
2. Final Design Package; and
3. As-builts and equipment specifications.

I. Records:

Seller shall maintain, throughout the term of this Agreement and for a period of six (6) years after the completion of the Project, all records that indicate the date, time, and nature of the services rendered. Seller shall make available, for inspection by County, all records, books of account, memoranda, and other documents pertaining to County at any reasonable time upon request. Seller specifically understands that the County and contractors to the County, as a local public body, is subject to the New Mexico Inspection of Public Records Act ("IPRA"), NMSA 1978, 14-2-1 *et seq.* Seller agrees to provide within 3 days any records or documents requested under IPRA. Seller shall be individually responsible for taking any action for documents or records which Seller claims are privileged, confidential or otherwise exempt from IPRA, however Seller shall provide the document, in unredacted form to County.

J. Force Majeure.

Neither County nor Seller shall be liable for any delay in the performance of this Agreement arising from uncontrollable forces such as fire, theft, storm, war, or any other force majeure event that could not have been reasonably avoided by the exercise of due diligence ("Force Majeure Event").

1. **Force Majeure Event**. If either Party is unable to timely perform any of its obligations (other than payment obligations) under this Agreement in whole or in part due to a Force Majeure Event, that Party will be excused from performing such obligations for the duration of the time that such Party remains affected by the Force Majeure Event; provided, that such Party uses commercially reasonable efforts to mitigate the impact of the Force Majeure Event and resumes performance of its affected obligations as soon as reasonably practical. The Party affected by the Force Majeure Event shall notify the other Party as soon as reasonably practical after the affected Party becomes aware that it is or will be affected by a Force Majeure Event. If the Force Majeure Event occurs during the Term and impacts the ability of the System to deliver electricity to the Delivery Point, the Term will be extended day for day for each day delivery is suspended due to the Force Majeure Event.
2. **Extension of Time**. If Seller is delayed in achieving Commencement of Installation due to a Force Majeure Event, the time for achievement of Commencement of Installation will be automatically extended to account for the impact of the delay.
3. **Extended Force Majeure**. If a Force Majeure Event properly noticed by either Party under paragraph (1) above continues for a consecutive period of one hundred eighty (180) days ("Extended Force Majeure Event"), then the non-affected Party may terminate this Agreement pursuant to the Termination provisions herein. If the Extended Force Majeure Event can be corrected through repair or restoration of the System or other actions by Seller prior to expiration of the initial one hundred eighty (180)-day period and Seller provides written evidence to County that it is diligently pursuing such actions, the Parties may mutually agree, in writing, to an extension of the above period consent to which shall not be unreasonably withheld, conditioned or delayed by County.

K. System Repair and Maintenance.

Seller shall be responsible for all System Operations, Repair, and Maintenance as follows:

1. Seller may suspend delivery of electricity from the System to the Delivery Point for the purpose of maintaining and repairing the System; provided that Seller shall use commercially reasonable efforts to (i) minimize any interruption in service to the County, and (ii) limit any

such suspension of service to weekend or off-peak hours. Scheduled and unscheduled maintenance and repairs shall be undertaken at Seller's sole cost and expense. County shall reimburse Seller for the reasonable cost of any repairs or maintenance resulting from damage caused by County, its agents, employees, or contractors.

2. Annual System Repair and Maintenance includes, but is not limited to,
   a. routine review of performance, and provision of information to County of any outage, production issues, or system faults.
   b. Monitoring and repair/maintenance data shall be shared annually with County and shall include: a) complete system inspection; b) inspection of power and control wiring; c) Mechanical inspection of power and control wiring; d) verify torque of electrical connections and cycle all circuit breakers; e) clean interior and exterior of electrical equipment of debris and dust; f) clean/replace vent filters and/or any applicable inverter maintenance as required to maintain warranty of the equipment; g) verify voltages and record meter readings at electrical equipment; h) verify inverter modes of operation; i) review annual data readings and performance reports; and j) weed and vector control and abatement.

L. Maintenance of Premises.

1. **Premises Maintenance**. County shall, at its sole cost and expense, maintain the Premises and Improvements, excluding the Subleased area, in good condition and repair.
2. **Safeguarding the Premises**. County shall reasonably maintain the physical security of the Premises and Improvements in a manner to be expected of a reasonable and prudent owner or lessee of premises and improvements similar to the Premises and Improvements in nature and location. County shall not conduct or permit activities on, in or about the Premises or the Improvements that have a reasonable likelihood of causing damage, impairment or otherwise adversely affecting the Seller's System.
3. **Insolation**. County acknowledges that unobstructed access to sunlight ("Insolation") is essential to Seller's performance of its obligations and a material term of this Agreement. County shall not, to the extent within its reasonable control, cause or permit any interference with the System's Insolation, and shall ensure that vegetation on the Premises adjacent to the System is regularly pruned or otherwise maintained to prevent interference with the System's Insolation. If County discovers any activity or condition that could diminish the Insolation of the System, County shall immediately notify Seller and cooperate with Seller in preserving and restoring the System's Insolation levels as they existed on the Effective Date.
4. **Alterations to Premises**. Not less than thirty (30) days prior to making any alterations or repairs to the Premises (except for emergency repairs) or any Improvement which may adversely affect the construction, operation or maintenance of the System, County shall inform Seller in writing and, thereafter, shall use commercially reasonable efforts to conduct such repairs, alterations or Improvements in compliance with any reasonable request made by Seller within ten (10) days after having received such written request to mitigate any adverse effect. If any repair, alteration or Improvement results in an adverse effect on the System, such action by County shall be deemed to be a request for relocation of the System. To the extent that temporary disconnection or removal of the System is necessary to perform such alterations or repairs, Seller shall perform such work, and any re-connection or re-installation of the System, at County's cost, or as provided herein. Seller shall make any alterations and repairs in a good and workmanlike manner, in compliance with all applicable laws, codes and permits.

M. System Outages; Costs/Fees.

1. **County Requested Outages**. Upon County's written request, Seller shall take the System off-line for no more than forty- eight (48) daylight hours (as defined by the United States National Weather Service in the area where the System is located) during each Contract Year ("Outage"). All Outages during any one Contract Year shall be cumulative. Except for

emergencies, the County request shall be delivered to Seller at least forty-eight (48) hours in advance ("Outage Allowance"). County is not obligated to accept or pay for electricity from the System for Outages up to the annual Outage Allowance. If the aggregate hours for Outages requested by the County exceed the Outage Allowance in a given Contract Year, then the County shall pay Seller for the below fee for each additional hour of suspension to compensate Seller for the electricity that would have been generated and delivered during such period in excess of the Outage Allowance. Compensation for outage hours in excess of the Outage Allowance in each Contract Year shall be in accordance with per hour fee in **Annex E**.

2. Seller shall be entitled to conduct regular maintenance of the System which may require temporary shut-down of the System. Seller shall deliver an annual schedule for expected maintenance which Seller shall be entitled to revise from time-to-time with reasonable advance notice to the County. Seller shall use reasonable efforts to limit maintenance outages to non-peak periods. County shall not be responsible to pay for or compensate Seller for Power not generated due to Seller's expected maintenance activity.

N. Miscellaneous Rights and Obligations of the Parties.

1. **OSHA Compliance**. Each Party shall comply with all Occupational Safety and Health Act ("OSHA") requirements and other similar local, State, and federal laws and regulations with respect to each Party's performance under this Agreement.
2. **Use and Payment of Contractors and Subcontractors.** Seller shall use suitably qualified, experienced and licensed contractors and subcontractors to perform its obligations under this Agreement. However, Seller shall be responsible for the quality of the work performed by its contractors and subcontractors. Seller shall pay when due all valid charges from all contractors, subcontractors and suppliers supplying goods or services to Seller under this Agreement. Seller shall be solely responsible for payment of wages, salary or benefits to any and all employees or contractors retained by Seller in the performance of the Services. Seller agrees to indemnify, defend and hold harmless County for any and all claims that may arise from Seller's relationship to its employees and subcontractors.
3. **Non-Discrimination**. During the term of this Agreement, Seller shall not discriminate against any employee or applicant for an employment position to be used in the performance of the obligations of Seller under this Agreement, with regard to race, color, religion, sex, age, ethnicity, national origin, sexual orientation or gender identity, disability or veteran status.

O. Liens.

Seller shall not directly or indirectly cause, create, incur, assume or allow to exist any Lien on or with respect to the Premises or the Improvements, other than (i) those Liens which Seller is permitted by law to place on the Premises due to non-payment by County of amounts due under this Agreement, and (ii) those Liens solely on Seller's property and rights hereunder (and, for the avoidance of doubt, excluding any property or rights held by the County) granted to financing parties as contemplated in Section 16(a)(ii)(2) below. The Seller shall immediately notify the County in writing of the existence of any Lien not permitted hereunder following discovery of same and shall promptly (and in all events within thirty (30) days) cause the same to be discharged and released of record without cost to the County.

P. Relocation of System.

If, during the Term, County ceases to conduct business operations at the Premises or vacates the Premises; the Premises have been destroyed; or the County is otherwise unable to continue to host the System or accept the electricity delivered by the System for any other reason (other than a Default Event by Seller), County may propose in writing the relocation of the System, at County's cost, in lieu of termination of the Agreement by Seller for a Default Event by County. If such proposal is practically feasible and preserves the economic value of the agreement for Seller as reasonably determined by Seller, then the Parties shall seek to negotiate in good faith an agreement for the relocation of the System. If the Parties are unable to reach agreement on

relocation of the System within sixty (60) days after the date of receipt of County's proposal, Seller may terminate this Agreement pursuant to the provisions herein.

Q. Termination.

1. **Termination Due to Contract Price Adjustments or Lack of Project Viability**. If, at any time after the Effective Date and prior to Seller's provision of written notice of commencement of material procurement or installation of the Project and System (upon County's receipt of such notice, "Commencement of Installation"), circumstances arise which Seller excluded or was unable to reasonably predict from Contact Price calculations or Seller determines that the installation of the System will not be technically or economically viable, Seller may terminate this Agreement by providing ten (10) days' prior written notice to the County. Neither Party shall be liable for any damages in connection with such termination. After Commencement of Installation, the Contract Price shall not be subject to further adjustment unless as otherwise provided herein.
2. **Termination by County for Delay**. If Commencement of Installation has not occurred one hundred and twenty (120) days after the Effective Date (extended for any Force Majeure Event or Buyer Delay), County may terminate this Agreement by providing thirty (30) days' prior written notice to Seller; provided that this Agreement will not terminate pursuant to this paragraph if Seller achieves Commencement of Installation on or before the end of such thirty (30) day notice period. County shall not be liable for any damages or costs in connection with such termination. The term "Buyer Delay" shall mean any delay resulting from (1) County's failure to perform under this Agreement, (2) County's failure to obtain the DOE Approval by November 30, 2019, (3) County's failure to obtain the Contract Approvals within thirty (30) days of the date of execution of this Agreement, or (4) the failure of the Parties to execute the Sublease or license by November 30, 2019.

R. Default, Remedies and Damages.

1. **Default**. Any Party that fails to perform its responsibilities herein as provided below, or experiences any of the circumstances listed below ("Default Event") is deemed a "Defaulting Party", the other Party is the "Non-Defaulting Party":
    a. Failure of a Party to pay any amount due and payable under this Agreement, other than an amount that is subject to a good faith dispute, within ten (10) days following receipt of written notice from the Non-Defaulting Party of such failure to pay ("Payment Default"); or
    b. Failure of a Party to perform any material obligation under this Agreement not addressed elsewhere in this section within thirty (30) days following receipt of written notice from the Non-Defaulting Party demanding such cure; provided, that if the Default Event cannot reasonably be cured within thirty (30) days and the Defaulting Party has demonstrated prior to the end of that period that it is diligently pursuing such cure, the cure period will be extended for a further reasonable period of time, not to exceed ninety (90) days; or
    c. A Party becomes insolvent or is a party to a bankruptcy, reorganization, insolvency, liquidation, receivership, dissolution, winding-up or relief of debtors, or any general assignment for the benefit of creditors or other similar arrangement or any event occurs or proceedings are taken in any jurisdiction with respect to the Party which has a similar effect (or, if any such actions are initiated by a third party, such action(s) is(are) not dismissed within sixty (60) days; or
    d. If Seller fails to deliver at least eighty percent (80%) of the expected annual electricity set forth in **Annex B** for each Contract Year in any two (2) consecutive Contract Years excluding any failure resulting from a failure or default of the County hereunder or a Force Majeure Event.

2. **Remedies**.
    a. Suspension. Upon the occurrence and during the continuation of a Default Event by the Non-Defaulting party, including a Payment Default, the Non-Defaulting Party may suspend performance of its obligations under this Agreement until the earlier to occur of the date (a) the Non-Defaulting Party cures the Default Event in full, or (b) the non-defaulting party may terminate the Agreement pursuant to the Notice requirements herein.
    b. Termination. In addition to the other Termination rights provided herein, upon the occurrence and during the continuation of a Default Event, the Non-Defaulting Party may terminate this Agreement, by providing ten (10) days prior written notice to the Defaulting Party.
    c. Reservation of Rights. Nothing in this section limits either Party's right to pursue any remedy under this Agreement, at law or in equity, including with respect to the pursuit of an action for damages by reason of a breach or Default Event under this Agreement.
3. **Obligations following Termination**.
    a. If a Party terminates this Agreement as provided herein, then following such termination, Seller shall remove the equipment constituting the System in compliance with the above at the sole cost and expense of the Defaulting Party.

S. Removal of System upon Termination or Expiration.

Upon the expiration or earlier termination of this Agreement, provided County does not exercise its purchase option, Seller, or its agents, shall, at its expense (unless expressly provided otherwise in this Agreement), remove all of the tangible property comprising the System from the Premises with a targeted completion date that is no later than ninety (90) days after the expiration of the Term. The portion of the Premises where the System is located shall be returned to substantially its original condition (excluding ordinary wear and tear), including the removal of System mounting pads or other support structures. If Seller fails to remove or commence substantial efforts to remove the System by such agreed upon date, County may, at its option, remove the System and restore the Premises to its original condition (other than ordinary wear and tear) at Seller's cost.

T. **Representations and Warranties.**

1. **General Representations and Warranties**. Seller represents and warrants to the County the following:
    a. Seller is duly organized, validly existing and in good standing under the laws of the jurisdiction of its formation; the execution, delivery and performance by Seller of this Agreement has been duly authorized by all necessary corporate, partnership or limited liability company action, as applicable, and do not and will not violate any law; and this Agreement is the valid obligation of Seller, enforceable against Seller in accordance with its terms (except as may be limited by applicable bankruptcy, insolvency, reorganization, moratorium and other similar laws now or hereafter in effect relating to creditors' rights generally).
    b. Seller shall maintain all required licenses including, without limitation, all necessary professional and business licenses, throughout the term of this Agreement. Seller shall require and shall assure that all of Seller's employees, contractors and subcontractors maintain all required licenses including, without limitation, all necessary professional and business licenses.
2. **County's Representations and Warranties**. County represents and warrants to Seller the following:
    a. The County is an incorporated county under the laws of state of New Mexico; the execution, delivery and performance by the County of this Agreement has been duly authorized by all necessary action under applicable law, as applicable, and does not

and will not violate any law.

b. This Agreement is the valid obligation of the County, enforceable against Seller in accordance with its terms (except as may be limited by applicable bankruptcy, insolvency, reorganization, moratorium and other similar laws now or hereafter in effect relating to creditors' rights generally), entered into by the County pursuant to and in accordance with each of NMSA 1978, § 4-37-1, § 3-18-1(B), § 4-46-1 and § 37-1-23.

c. No approval or consent is required by law or under contract for the execution and performance by the County of this Agreement except the Contract Approvals,

d. Licenses. (a) County has title to or a leasehold or other valid property interest in the Premises such that County has the full right, power and authority to grant the Licenses in paragraph 7(a), (b) such grant of the License(s) does not violate any law, ordinance, rule or other governmental restriction applicable to County or the Premises and is not inconsistent with and will not result in a breach or default under any agreement by which County is bound or that affects the Premises, and (c) if County does not own the Premises or any Improvement on which the System is to be installed, County has obtained all required consents from the owner of the Premises and/or Improvements, as the case may be, to grant the Licenses to Seller so that Seller may perform its obligations under this Agreement.

e. Accuracy of Information. All information provided by County to Seller, as it pertains to (a) the Premises, (b) the Improvements on which the System is to be installed, if applicable, (c) County's planned use of the Premises and any applicable Improvements, and (d) County's estimated electricity requirements, is accurate in all material respects to the best information and belief of the County.

f. County Status. County is not subject to regulation as a public utility or a public utility holding company as defined by the State of New Mexico.

g. Sufficient funds have been appropriated to allow the County to perform its payment obligations under this Agreement during the entire Term and/or in connection with any termination of this Agreement and the County has taken all steps necessary to establish a "special fund" to perform such obligations under this Agreement and is, therefore, not subject to the limitations of the Bateman Act, NMSA 1978, §§ 6-6-11 *et seq*.

3. Seller's Warranties.

If Seller damages any part of the Premises or any Improvements on the Premises, Seller shall repair or reimburse County for such damage, as agreed by the Parties.

U. Ownership; Option to Purchase.

1. **Ownership of System**. Throughout the Term, Seller shall be the legal and beneficial owner of the System, and all RECs and Incentives, and the System will remain the personal property of Seller and will not attach to or be deemed a part of, or fixture to, the Premises or any Improvement on which the System is installed. The Seller and County agree that the Seller is the tax owner of the System and all tax filings and reports shall be filed in a manner consistent with this Agreement. The System will at all times retain the legal status of personal property as defined in Article 9 of the New Mexico Uniform Commercial Code, NMSA 1978, Chapter 55.

2. **Subordination and Non-Disturbance Agreement**. County shall provide to Seller a subordination and non-disturbance agreement in a form mutually acceptable to Seller, County, and the provider of the subordination and non-disturbance agreement from the holder of any mortgage on the Premises and other Persons holding a similar interest in the Premises. Such authorization shall not be unreasonably withheld by County, however Seller shall at all times be responsible for the Services and Work provided herein.

3. **Option to Purchase**.

a. **Exercise of Option**. At the end of the sixth (6th), tenth (10th), fifteenth (15th) or twentieth (20th) Contract Years and at the end of the Term, so long as neither party is in default under this Agreement ("Option to Purchase"). County may purchase the System from Seller on any such date for a price which is mutually agreed by the Parties. County shall notify Seller of its intent to purchase at least ninety (90) days and not more than one hundred eighty (180) days prior to the end of the applicable Contract Year, as applicable, and the purchase shall be completed prior to the end of the applicable Contract Year subject only to the agreement of the Parties on the price and other terms and the receipt of any required consents or approvals under contract or applicable law. The purchase price shall never be less than the total obligations owed to the Financing Parties at the time of the purchase and as a result of such early repayment.

b. **Title Transfer; Warranties; Manuals**. Seller shall transfer valid title to the System to County upon Seller's receipt of the purchase price and execution by the Parties of a written instrument or agreement in form and substance acceptable to Seller and the Financing Parties to effect such sale. The System will be sold "as is, where is, with all faults". Seller will assign to County any manufacturer's warranties that are in effect as of the date of purchase and which are then assignable pursuant to their terms, but Seller otherwise disclaims all warranties of any kind, express or implied, concerning the System (other than as to title). Seller shall also provide County all System operation and maintenance manuals which are then assignable and logs in Seller's possession and provide County basic training on the operation and maintenance of the System upon County's reasonable request. Upon purchase of the System, County shall assume complete responsibility for the operation and maintenance of the System and liability for the performance of (and risk of loss for) the System, and, except for any Seller obligations that survive termination, Seller will have no further liabilities or obligations hereunder for the System.

V. Indemnification and Limitations of Liability.

1. **Indemnity Obligations**.

a. General Indemnity. Seller shall indemnify, hold harmless and defend County, its Council members, employees, agents and representatives ("County Indemnified Parties"), from and against all liabilities, damages, claims, demands, actions (legal or equitable), and costs and expenses, including without limitation attorneys' fees, of any kind or nature ("Liabilities"), arising from Seller's performance hereunder or breach hereof and the performance of Seller's employees, agents, representatives and subcontractors.

b. Environmental Indemnity. Seller shall indemnify, defend and hold harmless all of County's Indemnified Parties from and against all Liabilities arising out of or relating to the existence at, on, above, below or near the Premises of any Hazardous Substance (as defined in Section 14(c)(iii)) to the extent deposited, spilled or otherwise caused by Seller or any of its contractors, agents or employees. Each Party shall promptly notify the other Party if it becomes aware of any Hazardous Substance on or about the Premises generally or any deposit, spill or release of any Hazardous Substance. "Hazardous Substance" means any chemical, waste or other substance (a) which now or hereafter becomes defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "extremely hazardous wastes," "restricted hazardous wastes," "toxic substances," "toxic pollutants," "pollution," "pollutants," "regulated substances," or words of similar import under any laws pertaining to the environment, health, safety or welfare, (b) which is declared to be hazardous, toxic, or polluting by any Governmental Authority, (c) exposure to which is now or hereafter prohibited, limited or regulated by any Governmental Authority, (d) the storage, use, handling, disposal or release of which is restricted or regulated by any Governmental Authority, or (e) for which remediation or cleanup is required by any Governmental Authority

W. Notice.

4. All notices under this Agreement shall be in writing and delivered by hand, electronic mail, overnight courier, or regular, certified, or registered mail, return receipt requested, and will be deemed received upon personal delivery, acknowledgment of receipt of electronic transmission, the promised delivery date after deposit with overnight courier, or five (5) days after deposit in the mail. Notices must be sent to the person identified below at the addresses set forth in this Agreement or such other address as either Party may specify in writing:

County:	LOS ALAMOS SOLAR II, LLC
Deputy Utility Manager, EP 1000 Central Avenue, Suite 140 Los Alamos, NM 87544	150 N. Michigan Avenue, Suite 1500 Chicago, Illinois 60601
Telephone: (505) 662-8131	Telephone: 312-873-0004
Email:	Email:

5. **Electronic Signatures**. The parties agree that pursuant to the New Mexico Uniform Electronic Transactions Act, NMSA 1978, 14-16-1 *et seq.*, applies to the extent permitted by law.
6. **Change of Contact**. Any change of the above contacts shall be provided as soon as reasonably practical to the other parties.

X. Change in Law.

1. **Impacts of Change in Law**. If Seller determines that a Change in Law has occurred or will occur that has or will have a material adverse effect on Seller's rights, entitlement, obligations or costs under this Agreement, then Seller may so notify the County in writing of such Change in Law. Within thirty (30) days following receipt by the County of such notice, the Parties shall meet and attempt in good faith to negotiate such amendments to this Agreement as are reasonably necessary to preserve the economic value of this Agreement to both Parties. If the Parties are unable to agree upon such amendments within such thirty (30) day period, then Seller may terminate this Agreement and remove the System and restore the Premises in accordance with this Section without either Party having further liability under this Agreement except with respect to liabilities accrued prior to the date of termination or in connection with removal and restoration.
2. **Illegality or Impossibility**. If a Change in Law renders this Agreement, or the Parties performance of this Agreement, either illegal or impossible, then the Parties may terminate this Agreement immediately upon notice to County without either Party having further liability under this Agreement.
3. **"Change in Law"** means any of the following (excluding any change by the County or any agency, division or other arm thereof) (i) the enactment, adoption, promulgation, modification or repeal after the Effective Date of any applicable law or regulation, or (ii) the imposition of any material conditions on the issuance or renewal of any applicable permit after the Effective Date (notwithstanding the general requirements contained in any applicable permit at the time of application or issue to comply with future laws, ordinances, codes, rules, regulations or similar legislation).

Y. Assignment and Financing.

1. **Assignment**. Restrictions on Assignment. This Agreement may not be assigned in whole or in part by either Party without the prior written consent of the other Party, which consent may not be unreasonably withheld or delayed. Notwithstanding the foregoing, County acknowledges that Seller may grant a lien on its right, title and interest in this Agreement pursuant to a financing in favor of a Financing Party.

2. **Financing**. The Parties acknowledge that Seller may obtain one or more of debt, equity or tax equity financing or other credit support from lenders, investors or other third parties (each a "**Financing Party**") in connection with the installation, construction, ownership, operation and maintenance of the System. In furtherance of Seller's financing arrangements and in addition to any other rights or entitlements of Seller under this Agreement, County shall timely execute any consents to assignment (which may include notice, cure, attornment and step-in rights) or estoppels ("**Financing Consent**") and negotiate any amendments to this Agreement that may be reasonably requested by Seller or a Financing Party; provided, that such Financing Consent or amendments do not alter the fundamental economic terms of this Agreement.
3. **Confidential Information.** To the maximum extent permitted by applicable law, if either Party provides confidential information ("**Confidential Information**") to the other or, if in the course of performing under this Agreement or negotiating this Agreement a Party learns Confidential Information of the other Party, the receiving or learning Party shall (i) protect the Confidential Information from disclosure to third parties with the same degree of care accorded its own confidential and proprietary information, and (ii) refrain from using such Confidential Information, except in the negotiation, performance, enforcement and, in the case of Seller, financing, of this Agreement. It is understood by Seller that the County, as a public body, is subject to the New Mexico Inspection of Public Records Act, NMSA 1978, 14-2-1 et seq. As such, Seller will cooperate with County in producing for inspection any and all requested records, unless exempt under the Act. If Seller claims any exemption, it shall be the duty and responsibility of the Seller to take any necessary action to prevent the County from disclosing the records, including but not limited to injunctions, orders of protection, etc.

Z. Definitions and Interpretation.

Unless otherwise defined or required by the context in which any term appears: (i) the singular includes the plural and vice versa, (ii) the words "herein," "hereof" and "hereunder" refer to this Agreement as a whole and not to any particular section or subsection of this Agreement, (iii) references to any agreement, document or instrument mean such agreement, document or instrument as amended, restated, modified, supplemented or replaced from time to time, and (iv) the words "include," "includes" and "including" mean include, includes and including "without limitation." The captions or headings in this Agreement are strictly for convenience and will not be considered in interpreting this Agreement. As used in this Agreement, "dollar" and the "$" sign refer to United States dollars.

AA. Forum and Venue of Law.

In any lawsuit or legal dispute arising from the operation of this Agreement, Seller agrees that the laws of the State of New Mexico shall govern. Venue shall be in the First Judicial District Court of New Mexico in Los Alamos County, New Mexico. Any claim under federal law shall be in the Federal Judicial District Court of New Mexico.

BB. Survival.

Provisions of this Agreement that should reasonably be considered to survive termination of this Agreement, including, without limitation provisions related to billing and payment and indemnification, will survive termination of this Agreement.

CC. Further Assurances.

Each Party shall provide such information, execute, and deliver any instruments and documents and to take such other actions as may be reasonably requested by the other Party to give full effect to this Agreement and to carry out the intent of this Agreement.

DD. Waivers.

No provision or right or entitlement under this Agreement may be waived or varied except in writing signed by the authorized agent of the Party to be bound, its governing body. Waiver of any of one provision will constitute a waiver of any other provision, nor will such waiver constitute a continuing waiver unless otherwise expressly provided.

EE. No Partnership.

No provision of this Agreement may be construed or represented as creating a partnership, trust, joint venture, fiduciary or any similar relationship between the Parties. No Party is authorized to act on behalf of the other Party, and neither may be considered the agent of the other.

FF. Entire Agreement, Modification, Invalidity, Captions.

This Agreement constitutes the entire agreement of the Parties regarding its subject matter and supersedes all prior proposals, agreements, or other communications between the Parties, oral or written. This Agreement may be modified only by a writing signed by both Parties. If any provision of this Agreement is found unenforceable or invalid, such provision shall not be read to render this Agreement unenforceable or invalid as a whole. In such event, such provision shall be rectified or interpreted so as to best accomplish its objectives within the limits of applicable law. As each party are duly formed corporations, and all parties are or have had the chance to be legally represented, it is mutually agreed that contract interpretation shall not be read against the drafter.

GG. No Third-Party Beneficiaries.

Except as otherwise expressly provided herein, this Agreement and all rights hereunder are intended for the sole benefit of the Parties hereto, and the Financing Parties to the extent provided herein or in any other agreement between a Financing Party and Seller or County, and do not imply or create any rights on the part of, or obligations to, any other Person or Persons.

HH. Counterparts.

This Agreement may be executed in any number of separate counterparts and each counterpart will be considered an original and together comprise the same Agreement.

II. Standard of Performance:

Seller agrees and represents that it has and will maintain the personnel, experience and knowledge necessary to qualify it for the particular duties to be performed under this Agreement. Seller shall perform the Services described herein in accordance with a standard that exceeds the industry standard of care for performance of the Services.

JJ. Insurance:

Seller shall obtain and maintain insurance of the types and in the amounts set out below throughout the term of this Agreement with an insurer acceptable to County. Seller shall assure that all subcontractors maintain like insurance. Compliance with the terms and conditions of this Section is a condition precedent to County's obligation to pay compensation for the Services and Seller shall not provide any Services under this Agreement unless and until Seller has met and maintains the requirements of this Section. County requires Certificates of Insurance or other evidence acceptable to County that Seller has met its obligation to obtain and maintain insurance and to assure that subcontractors maintain like insurance. Should any of the policies described below be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. General Liability Insurance and Automobile Liability Insurance shall name County as an additional insured, and these policies shall be endorsed with a waiver of subrogation in favor of the County.

1. **General Liability Insurance:** ONE MILLION DOLLARS ($1,000,000.00) per occurrence; TWO MILLION DOLLARS ($2,000,000.00) aggregate.
2. **Workers' Compensation:** In an amount as may be required by law. County may immediately terminate this Agreement if Seller fails to comply with the Worker's Compensation Act and applicable rules when required to do so.
3. **Automobile Liability Insurance:** ONE MILLION DOLLARS ($1,000,000.00) combined single

limit per occurrence; TWO MILLION DOLLARS ($2,000,000.00) aggregate on any owned, and/or non- owned motor vehicles used in performing Services under this Agreement.

KK. Non-Discrimination.

During the term of this Agreement, Seller shall not discriminate against any employee or applicant for an employment position to be used in the performance of the obligations of Seller under this Agreement, with regard to race, color, religion, sex, age, ethnicity, national origin, sexual orientation or gender identity, disability or veteran status.

LL. Prohibited Interests.

Seller agrees that it presently has no interest and shall not acquire any interest in any other project or business, direct or indirect, which would result in a conflict of interest in any manner or degree with the performance of its services hereunder. Seller further agrees that it will not employ any person having such an interest to perform services under this Agreement. No County Council member or other elected official of County, or manager or employee of County shall solicit, demand, accept or agree to accept a gratuity or offer of employment contrary to Section 31-282 of the Los Alamos County Code of Ordinances.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date(s) set forth opposite the signatures of their authorized representatives to be effective for all purposes on the date first written above.

PURCHASER:

INCORPORATED COUNTY OF LOS ALAMOS, NM

By: Philo Shelton, III, P.E. Utility Manager	Date
ATTEST:	
Naomi D. Maestas County Clerk	Date
Approved to Form:	
J. Alvin Leaphart, Esq. County Attorney	Date

SELLER:

LOS ALAMOS SOLAR II, LLC

Ron Flax-Davidson President	Date

ANNEX A. PROJECT DESCRIPTION

A solar generation facility the nameplate capacity of which shall be 1.32 MW DC utilizing PV modules mounted on a ballasted racking system. *See also* **Annex C**.

ANNEX B. ELECTRICITY PRODUCTION

Year	Annual Production (kWh)
2020	2,402,604
2021	2,389,390
2022	2,376,248
2023	2,363,179
2024	2,350,181
2025	2,337,255
2026	2,324,400
2027	2,311,616
2028	2,298,902
2029	2,286,258
2030	2,273,684
2031	2,261,179
2032	2,248,742
2033	2,236,374
2034	2,224,074
2035	2,211,842
2036	2,199,677
2037	2,187,578
2038	2,175,547
2039	2,163,581
2040	2,151,681
2041	2,139,847
2042	2,128,078
2043	2,116,374
2044	2,104,734
25 Year Production	56,263,025

This table is subject to modification pursuant to Section II.F.

ANNEX C. PREMISES AND PROJECT AREA

From Seller Proposal, page 8.

The area highlighted in blue shall be the proposed Project area and Subleased property.

ANNEX D. APPROVALS

- Permitting requirements:
  - Federal-
    - No FONSI necessary due to Categorical Exclusion for landfill site
    - Soil Disturbance Plan- County is researching with DOE contacts to determine if necessary or not
  - State-
    - CID (Construction Industries Division) permit (electrical and mechanical inspections)
    - NM Environment Department review and approval of final system design
  - County-
    - Development permit
    - Storm Water Pollution Prevention Plan
- Agreements needed (per RFP):
  - Sublease
  - Access Agreement
  - Sublease or license with County (DOE approval required)
  - Interconnection Agreement

ANNEX E. ANNUAL COUNTY OUTAGE EXCEEDANCE COSTS

Month	Monthly System kWh Production	$ Per Each Additional Outage Day	7am	8am	9am	10am	11am	Noon	1pm	2pm	3pm	4pm
Jan	183,813	346.87	14.67	28.77	39.42	46.47	48.90	46.29	42.85	36.23	27.75	15.52
Feb	177,537	370.93	15.69	30.77	42.15	49.69	52.29	49.50	45.82	38.74	29.67	16.60
March	196,887	371.54	15.72	30.82	42.22	49.77	52.38	49.58	45.90	38.81	29.72	16.63
April	232,289	452.96	19.16	37.57	51.47	60.68	63.86	60.44	55.95	47.31	36.24	20.27
May	227,705	429.70	18.18	35.64	48.83	57.56	60.58	57.34	53.08	44.88	34.38	19.23
June	224,667	438.10	18.53	36.34	49.78	58.69	61.76	58.46	54.12	45.76	35.05	19.61
July	205,105	387.05	16.37	32.11	43.98	51.85	54.57	51.65	47.81	40.43	30.96	17.32
August	195,860	369.61	15.64	30.66	42.00	49.51	52.11	49.32	45.66	38.61	29.57	16.54
Sept	194,844	379.95	16.07	31.52	43.17	50.90	53.57	50.70	46.93	39.69	30.39	17.00
Oct	207,502	391.58	16.57	32.48	44.50	52.45	55.21	52.25	48.37	40.90	31.33	17.53
Nov	185,999	362.70	15.34	30.09	41.21	48.59	51.13	48.40	44.80	37.88	29.02	16.23
Dec	170,396	321.55	13.60	26.67	36.54	43.07	45.33	42.91	39.72	33.59	25.72	14.39

ANNEX F. FORM OF GUARANTY

GUARANTY

This Guaranty, dated as of August ___, 2019 (this "**Guaranty**"), is made by PNE USA Inc. (the "**Guarantor**"), in favor The Incorporated County of Los Alamos ("**CLA**") pursuant to that certain Solar Power Purchase Agreement Contract No. AGR 19-43, dated as of August __, 2019 (the "**PPA**"), between CLA and Los Alamos Solar II, LLC (the "**Project Company**"). Capitalized terms used but not defined herein have the meanings ascribed to them in the PPA.

1. Guaranty. To induce the CLA to enter into the PPA, the Guarantor hereby absolutely, unconditionally and irrevocably guarantees to the CLA, on the terms and conditions set forth herein, the due and punctual payment of the obligations of the Project Company pursuant to the PPA if and when due in accordance with the PPA (the "**Guaranteed Obligations**"); *provided, however*, that the maximum amount payable by the Guarantor hereunder, together with any amounts paid by the Project Company, shall not exceed the Cap (as defined below), it being understood that the CLA will not seek to enforce this Guaranty for an amount in excess of the Cap. The term "**Cap**" shall mean an amount equal to One Hundred and Forty Thousand Dollars ($140,000). If the Project Company shall fail to punctually and fully to pay the Guaranteed Obligations in accordance with the PPA, the Guarantor shall pay such amounts to the CLA sufficient to satisfy the Guaranteed Obligations in full within ten (10) business days following a demand therefor by the CLA subject to the Cap. For the avoidance of doubt, this Guaranty and the Cap shall by no means be understood or construed in a way to increase or circumvent any limitations of liability set forth in the PPA and the CLA shall not be entitled to duplicate remedies under this Guaranty and the PPA. The CLA hereby agrees that in no event shall the Guarantor be required to pay any amount to the CLA under, in respect of, or in connection with this Guaranty, the PPA or the transactions contemplated hereby, together with any amounts paid by the Project Company, exceeding the Cap. All payments hereunder shall be made in lawful money of the United States, in immediately available funds.

2. Representations and Warranties. The Guarantor hereby represents and warrants that:

(a) the Guarantor is a duly organized and validly existing corporation under the laws of the State of Delaware;

(b) the execution, delivery and performance of this Guaranty have been duly authorized by all necessary action and do not contravene any provision of the Guarantor's charter or similar organizational documents or any applicable law binding on the Guarantor or any of its property or assets;

(c) all consents, approvals, authorizations, permits of, filings with and notifications to, any Governmental Authority necessary for the due execution, delivery and performance of this Guaranty by the Guarantor have been obtained or made and all conditions thereof have been duly complied with, and no other action by, and no notice to or filing with, any Governmental Authority is required in connection with the execution, delivery or performance of this Guaranty;

(d) this Guaranty constitutes a legal, valid and binding obligation of the Guarantor, enforceable against the Guarantor in accordance with its terms, except as may be limited by bankruptcy, insolvency,

reorganization, moratorium, and other similar laws of general applicability relating to or affecting creditors' rights or general equity principles (regardless of whether considered at law or in equity); and

(e) the Guarantor has the financial capacity to pay and perform its obligations under this Guaranty.

3. Successors and Assigns. Neither the Guarantor nor the CLA may assign its rights, interests or obligations hereunder to any other Person (except by operation of law) without the prior written consent of the counterparty hereto.

4. Continuing Guaranty; Termination. Unless terminated pursuant to this Section 4, this Guaranty may not be revoked or terminated and shall remain in full force and effect and binding on the Guarantor, its successors and permitted assigns until the satisfaction in full of the Guaranteed Obligations, subject to the Cap. Notwithstanding the foregoing, this Guaranty shall terminate and the Guarantor shall have no further obligations under this Guaranty as of the earliest to occur of:

(i) the date of termination of the PPA in accordance with its terms, under circumstances in which any of the Guaranteed Obligations are payable unless the CLA has made a claim under this Guaranty prior to such date, in which case the relevant termination date shall be the date that such claim is finally settled or otherwise resolved either in a final judicial determination or by agreement of the CLA and the Guarantor (or its permitted assignee) and the Guaranteed Obligations finally determined or agreed to be owed by the Guarantor are satisfied in full; and

(ii) termination of the PPA in accordance with its terms under circumstances in which none of the Guaranteed Obligations are payable; and

(iii) the time at which Guaranteed Obligations equal to the Cap have been paid in the aggregate in full.

5. No Recourse. Notwithstanding anything that may be expressed or implied in this Guaranty or any document or instrument delivered contemporaneously herewith, and notwithstanding the fact that the Guarantor may be a partnership or limited liability company, by its acceptance of the benefits of this Guaranty, the CLA acknowledges and agrees that (i) no Person other than the Guarantor has any obligations hereunder and (ii) it has no remedy, recourse or right of recovery against, and no personal liability shall attach to, any former, current or future director, officer, employee, agent, attorney, direct or indirect equity holder, controlling person, general or limited partner, manager, member, stockholder, Affiliate or assignee of the Guarantor (including those of the Project Company) or any former, current or future director, officer, employee, agent, attorney, direct or indirect equity holder, controlling person, general or limited partner, manager, member, stockholder, Affiliate or assignee of any of the foregoing (each, a "**Related Party**"), whether by or through attempted piercing of the corporate (or limited liability company or limited partnership) veil, by the enforcement of any assessment or by any legal or equitable proceeding, by virtue of any Applicable Law or otherwise, except for claims by the CLA against the Project Company and the Guarantor (but not any Related Party) under and to the extent provided in the PPA and in this Guaranty to the fullest extent such claims are available under the PPA and subject to the Cap and other limitations described

herein ("**Retained Guaranty Claims**"). The CLA hereby covenants and agrees that it shall not institute, and shall cause each of its Affiliates and their respective representatives not to institute, directly or indirectly, any Action or bring any other claim arising under, or in connection with, this Guaranty, the PPA, or the transactions contemplated thereby, against the Guarantor or any Related Party except for Retained Guaranty Claims brought by the CLA against the Guarantor. Recourse against the Guarantor with respect to the Retained Guaranty Claims shall be the sole and exclusive remedy of the CLA and all of its Affiliates against the Guarantor and all Related Parties in respect of any liabilities or obligations arising under, or in connection with, the PPA or any of the other agreements contemplated thereby, or the transactions contemplated thereby, and such recourse shall be subject to the limitations described herein and therein.

6. Waivers and Consents. Guarantor hereby waives (i) notice of acceptance of this Guaranty, notice of the creation or existence of any of the Guaranteed Obligations, notice of any action by the CLA in reliance hereon or in connection therewith, or notice of the entry into the PPA and any amendments, supplements or modifications thereto; (ii) presentment and demand concerning the liabilities of Guarantor; and (iii) any right to require that any action or proceeding be brought against Project Company or any other person, or to require that CLA seek enforcement of any performance against Project Company or any other person, prior to any action against Guarantor under the terms hereof, provided that for the purposes of (i), (ii) and (iii) above, CLA agrees that in the event of any Claim pursuant to the PPA, as a condition to making such Claim against the Guarantor hereunder, it will provide concurrent notice of such Claim to each of Guarantor and Project Company. No delay by CLA in the exercise of (or failure by CLA to exercise) any rights hereunder shall operate as a waiver of such rights, a waiver of any other rights or a release of Guarantor from its obligations hereunder (with the understanding, however, that the foregoing shall not be deemed to constitute a waiver by Guarantor of any rights or defenses which Guarantor may at any time have pursuant to or in connection with any applicable statutes of limitation).

7. Notices. Any and all notices or other communications required or permitted to be given under any of the provisions of this Guaranty shall be in writing and shall be deemed duly given (a) when delivered personally or by prepaid overnight courier, with a record of receipt, (b) the fourth day after mailing if mailed by certified mail, return receipt requested, or (c) the day of transmission if before close of business for the recipient on a Business Day or otherwise the Business Day thereafter, if sent by facsimile with confirmation of transmission by the transmitting equipment, in each case addressed to the Parties at the addresses set forth below (or at such other address as either Party may specify by notice to the other Party given as aforesaid).

If to the CLA, to:

County of Los Alamos

Deputy Utility Manager, EP

1000 Central Avenue, Suite 140

Los Alamos, NM 87544

If to the Guarantor, to:

PNE USA Inc.

150 N. Michigan Avenue, Suite 1500

Chicago, Illinois 60601

8. Governing Law. THIS AGREEMENT SHALL BE GOVERNED IN ALL RESPECTS BY THE LAWS OF THE STATE OF NEW YORK WITHOUT GIVING EFFECT TO THE CONFLICTS OF LAWS PRINCIPLES THEREOF.

9. Consent to Jurisdiction; Waiver of Jury Trial. Each of the Parties consents and submits itself and its property in any action or proceeding to the non-exclusive jurisdiction of the State and Federal Courts located within the State of New York in the event any dispute arises out of this Guaranty or the transactions contemplated by this Guaranty, or for recognition and enforcement of any judgment in respect thereof. THE PARTIES HEREBY EXPRESSLY AGREE THAT ALL DISPUTES, CLAIMS, AND COUNTERCLAIMS RELATING TO THIS AGREEMENT AND THE PROJECT SHALL BE LITIGATED, ADJUDICATED, OR OTHERWISE RESOLVED WITHOUT A JURY. THE PARTIES EXPRESSLY, VOLUNTARILY, AND UNEQUIVOCALLY WAIVE ANY RIGHT THEY MAY HAVE TO A JURY TRIAL IN CONNECTION WITH ALL DISPUTES, CLAIMS AND COUNTERCLAIMS RELATING TO THIS AGREEMENT.

10. Confidentiality. This Guaranty shall be treated as confidential and is being provided to the undersigned solely in connection with the PPA. This Guaranty may not be used, circulated, quoted or otherwise referred to in any document, except with the written consent of the Guarantor and the CLA. The foregoing notwithstanding, this Guaranty shall be provided to the CLA and the CLA or the undersigned may disclose the existence of this Guaranty to (a) its Related Parties; (b) prospective lenders, investors and third-party advisors in respect of the Project; and (b) to the extent required by Applicable Law.

11. No Third-party Beneficiaries. Except for the provisions of this Guaranty that reference Related Parties (each of which shall be for the benefit of and enforceable by each Related Party), the parties hereto hereby agree that their respective representations, warranties and covenants as set forth herein are solely for the benefit of the other parties hereto, in accordance with and subject to the terms of this Guaranty, and this Guaranty is not intended to, and does not, confer upon any Person other than the parties hereto and any Related Party any rights or remedies hereunder, including the right to rely upon the representations and warranties set forth herein.

12. Severability. Any term or provision of this Guaranty found to be invalid, illegal or unenforceable in any jurisdiction shall be, as to such jurisdiction, ineffective solely to the extent of such prohibition or unenforceability and shall not affect any other term or provision of this Guaranty or invalidate or render unenforceable such term or provision in any other jurisdiction; *provided*, *however*, that this Guaranty may not be enforced without giving effect to the Cap. Upon such determination that any term or other provision is invalid, illegal or unenforceable, the parties hereto shall negotiate in good faith to modify this Guaranty so as to effect the original intent of the parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible, it being understood that the transactions contemplated hereby cannot be consummated as originally contemplated without giving effect to the Cap.

14. Counterparts. This Guaranty may be executed by original, electronic or facsimile signatures in several counterparts that together shall constitute but one and the same agreement, binding on the Parties notwithstanding that the Parties have not signed the same counterpart.

15. Amendment. This Guaranty may be amended, supplemented or modified only by a written instrument duly executed by or on behalf of the Guarantor and the CLA.

IN WITNESS WHEREOF, the Parties have duly executed this Guaranty as of the day and year first above written.

PNE USA INC.

By: _____
Name:
Title:

THE INCORPORATED COUNTY OF LOS ALAMOS

By: _____
Name:
Title:

ANNEX G. CONSTRUCTION STAGING AREA

[County to propose reasonable construction staging area]

Agenda No.:	8.A
Index (Council Goals):	* 2019 Council Goal - N/A
Presenters:	Board of Public Utilities
Legislative File:	**12207-19**

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

STATUS REPORTS

ELECTRIC RELIABILITY

Los Alamos County Utilities

Electric Distribution Reliability

August 21, 2019

Stephen Marez
Electrical Engineering Manager

Electric Distribution Reliability Study
Twelve Month Outage History

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

Date	Call Rcd.	Circuit	Cause	Start Time	End Time	Duration	Customers Affected (Meters)	Combined Customer Outage Durations	Total Outage H:M:S	Running SAIDI
8/7/2018	Utilities	13	URD Failure	20:00	1:00	5:00	50	250:00:00	250:00:00	0:01:40
8/19/2018	Utilities	WR2	URD Failure	19:00	23:00	4:00	24	96:00:00	346:00:00	0:02:18
9/1/2018	Utilities	WR2	URD Failure	5:00	8:30	3:30	21	73:30:00	419:30:00	0:02:47
9/3/2018	Utilities	WR1	OH Failure	13:30	16:30	3:00	15	45:00:00	464:30:00	0:03:05
9/4/2018	Utilities	WR1	Weather	17:50	19:30	1:40	15	25:00:00	489:30:00	0:03:15
9/13/2018	Utilities	WR1	HUMAN	14:45	15:15	0:30	14	7:00:00	496:30:00	0:03:18
9/13/2018	Utilities	WR2	URD Failure	9:30	11:15	1:45	24	42:00:00	538:30:00	0:03:34
10/3/2018	Utilities	WR2	URD Failure	8:00	11:30	3:30	7	24:30:00	563:00:00	0:03:44
11/13/2018	Utilities	13	SAFETY	9:45	15:00	5:15	87	456:45:00	1019:45:00	0:06:46
11/23/2018	Utilities	13	URD Failure	11:45	12:00	0:15	7	1:45:00	1021:30:00	0:06:47
11/30/2018	Utilities	13	TREE	19:00	20:52	1:52	15	28:00:00	1049:30:00	0:06:58
11/30/2018	Utilities	13	TREE	19:00	0:00	5:00	15	75:00:00	1124:30:00	0:07:28
2/4/2019	Utilities	WR2	HUMAN	9:30	9:34	0:04	961	64:04:00	1188:34:00	0:07:53
2/8/2019	Utilities	WR2	URD Failure	15:57	17:15	1:18	25	32:30:00	1221:04:00	0:08:06
2/14/2019	Utilities	WR1	URD Failure	4:00	6:00	2:00	30	60:00:00	1281:04:00	0:08:30
3/3/2019	Utilities	EA4	OH Failure	14:41	17:45	3:04	15	46:00:00	1327:04:00	0:08:48
3/12/2019	Utilities	WR2	OH Failure	14:30	14:58	0:28	13	6:04:00	1333:08:00	0:08:51
3/12/2019	Utilities	13	TREE	3:00	9:40	6:40	104	693:20:00	2026:28:00	0:13:27
3/12/2019	Utilities	13	TREE	3:00	0:00	21:00	12	252:00:00	2278:28:00	0:15:07
3/12/2019	Utilities	13	TREE	14:30	17:10	2:40	1541	4109:20:00	6387:48:00	0:42:22
3/12/2019	Utilities	13	TREE	14:30	17:30	3:00	114	342:00:00	6729:48:00	0:44:39
3/12/2019	Utilities	13	TREE	16:30	20:30	4:00	2	8:00:00	6737:48:00	0:44:42
3/12/2019	Utilities	15	TREE	15:00	17:10	2:10	10	21:40:00	6759:28:00	0:44:50
4/15/2019	Utilities	16	OH Failure	7:00	9:30	2:30	7	17:30:00	6776:58:00	0:44:57
5/22/2019	Utilities	14	URD Failure	15:00	18:15	3:15	5	16:15:00	6793:13:00	0:45:04
5/22/2019	Utilities	16	OH Failure	22:00	23:30	1:30	120	180:00:00	6973:13:00	0:46:15
5/27/2019	Utilities	WR1	URD Failure	17:00	23:30	6:30	10	65:00:00	7038:13:00	0:46:41
6/14/2019	Utilities	16	OH Failure	21:30	2:30	5:00	6	30:00:00	7068:13:00	0:46:53

CIRCUIT SAIDI IS CALCULATED ACCORDING TO THE NUMBER OF CUSTOMERS IN EACH CIRCUIT RESPECTIVELY

Running SAIDI Circuit 13	Running SAIDI Circuit 14	Running SAIDI Circuit 15	Running SAIDI Circuit 16	Running SAIDI Circuit 17	Running SAIDI Circuit 18	SAIDI Circuit EA4 & Royal Crest	Running SAIDI Circuit WR1	Running SAIDI Circuit WR2	Monthly SAIDI		Monthly Customer Minutes out of service	WEATHER SAIDI
0:09:04												
								0:06:00	AUGUST	0:02:18	346:00:00	
								0:10:35				
							0:01:42					
							0:02:39					0:00:10
							0:02:55					
								0:13:12	SEPTEMBER	0:01:17	49:00:00	
								0:14:44	OCTOBER	0:00:10	66:30:00	
0:25:37												
				0:00:30								
0:26:38												
0:29:21									NOVEMBER	0:03:43	561:30:00	
								0:17:12				
								0:16:46				
							0:05:11		FEBRUARY	0:01:02	259:34:00	
						0:16:44						
								0:17:09				
0:25:08												
0:34:16												
3:03:15												
3:15:39												
3:15:56												
		0:00:42							MARCH	0:36:20	4481:00:00	0:36:20
			0:00:34						APRIL	0:00:07	4498:30:00	
	0:01:49											
			0:06:26									
							0:07:39		MAY	0:01:44	300:25:00	
			0:07:25						JUNE	0:00:12	308:45:00	
Circ 13	**Circ 14**	**Circ 15**	**Circ 16**	**Circ 17**	**Circ 18**	**Circ EA4**	**Circ WR1**	**Circ WR2**	**Total**	**0:46:53**		**0:36:30**
1655	**539**	**1875**	**1842**	**209**	**213**	**165**	**1586**	**961**	**9045**			

Twelve Month History	JULY 2019	
Total # Accounts	9045	
Total # Interruptions	28	
Sum Customer Interruption Durations	7068:13:00	hours:min:sec
# Customers Interrupted	3269	
SAIFI (APPA AVG. = 1.0)	.36	int./cust.
SAIDI (APPA AVG. = 1:00)	00:46	hours:min
CAIDI	2:09	hours:min/INT
ASAI	99.9996%	% available

- **SAIFI - System Average Interruption Frequency Index**
  A measure of interruptions per customer (Per Year)

  SAIFI= (Total number of customer interruptions)
  (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)

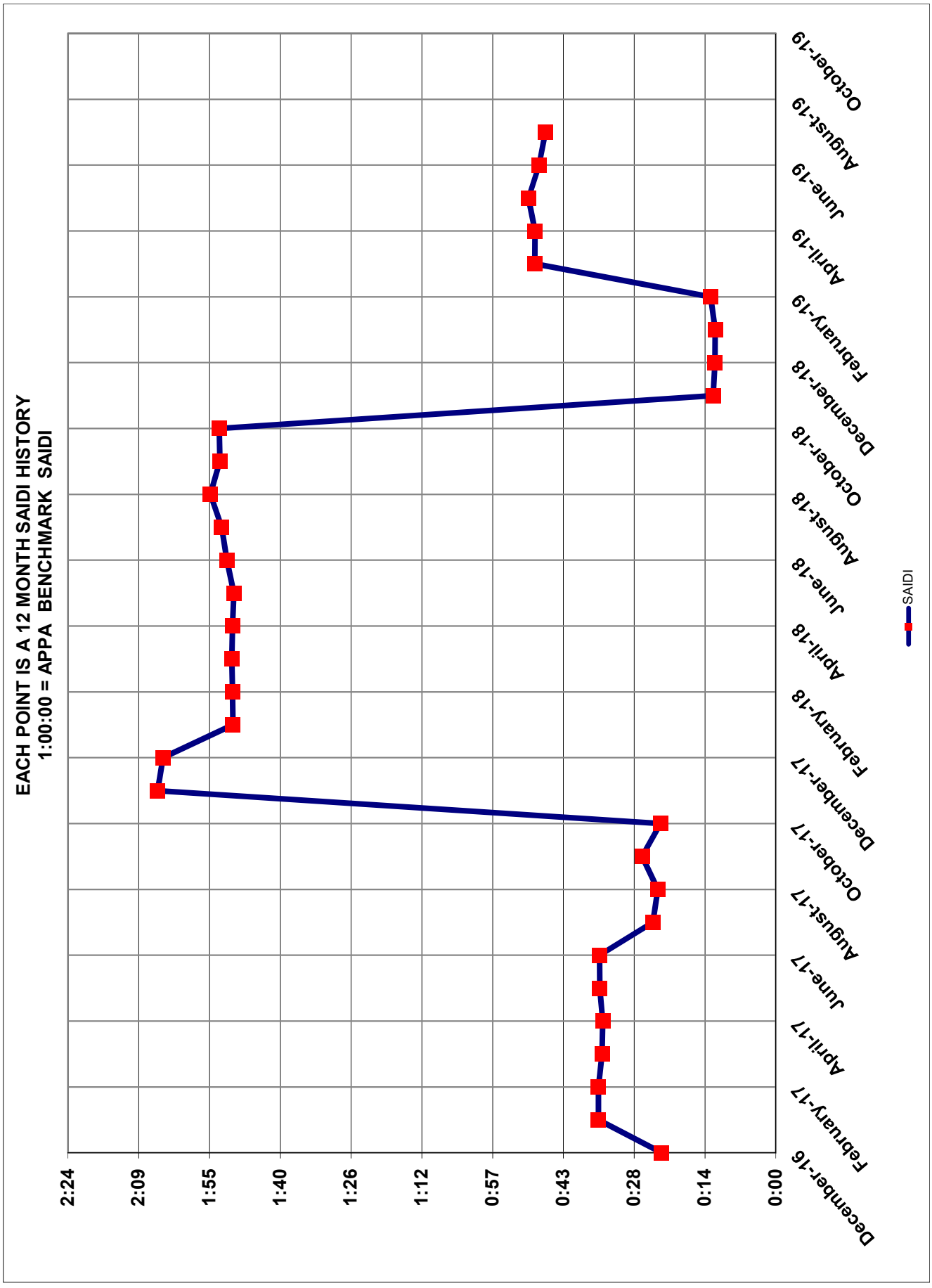
  SAIDI= (Sum of all customer outage durations)
  (Total number of customers served)

- **CAIDI – Customer Average Interruption Duration Index**
  A measure of the average outage duration per customer (hours per interruption)

  CAIDI= (Sum of all customer outage durations) = SAIDI
  (Total number of customer interruptions) SAIFI

- **ASAI – Average System Availability Index**
  A measure of the average service availability (Per unit)

  ASAI= (Service hours available) = 8760-SAIDI
  (Customer demand hours) 8760


EACH POINT IS A 12 MONTH SAIDI HISTORY
1:00:00 = APPA BENCHMARK SAIDI
2:24
2:09
1:55
1:40
1:26
1:12
0:57
0:43
0:28
0:14
0:00
December-16
February-17
April-17
June-17
August-17
October-17
December-17
February-18
April-18
June-18
August-18
October-18
December-18
February-19
April-19
June-19
August-19
October-19
SAIDI

STATUS REPORTS

ACCOUNTS RECEIVABLES

Los Alamos County Utilities Department
Active Receivables Over 90 Days Past Due
August 1, 2019

Account	Customer ID	Acct Type	Comments	90 - 119	120 +
3002536	2139668	RS	Paid $800 on 8/7/19	101.78	-
3006666	2112788	RS	Collection letter will be mailed on 8/12/19	106.69	-
3000498	2091588	RS	Collection letter will be mailed on 8/15/19	110.49	-
3004458	2063338	RS	Collection letter will be mailed on 8/22/19	117.23	-
3004322	2091848	RS	Collection letter will be mailed on 8/22/19	122.06	-
3005368	2029278	RS	Collection letter will be mailed on 8/22/19	123.15	-
3005883	2082788	RS	Collection letter will be mailed 8/29/23	123.78	-
3006840	2030718	RS	Collection letter will be mailed on 8/12/19	124.53	-
3002797	2200077	RS	Collection letter will be mailed 8/29/19	147.66	-
3004882	2097158	RS	Paid $80 on 8/2/19	152.53	-
3002769	2009914	RS	Collection letter will be mailed 8/29/19	181.78	-
3007017	2103218	CM	Paid $783.04 on 8/8/19	183.58	-
3008948	2008575	RS	Collection letter will be mailed on 8/12/19	184.23	-
3006082	2042058	RS	Collection letter will be mailed on 8/22/19	204.46	-
3003910	2125258	RS	Collection letter will be mailed 8/29/19	206.89	-
3005461	2093888	RS	Collection letter will be mailed on 8/22/19	206.96	-
3008846	2025446	RS	Collection letter will be mailed 8/29/19	206.97	-
3003875	2130988	RS	Collection letter will be mailed 8/29/19	209.59	-
3002375	2127058	RS	Collection letter will be mailed 8/29/19	211.14	-
3009174	2090328	RS	Collection letter will be mailed on 8/15/19	223.17	-
3006224	2056848	RS	Collection letter will be mailed on 8/22/19	226.22	-
3009521	2109278	RS	Collection letter will be mailed on 8/22/19	227.56	-
3002379	2115288	RS	EAP of $350	231.45	-
3005246	2000373	RS	Collection letter will be mailed on 8/22/19	232.77	-
3004168	2094658	RS	Collection letter will be mailed 8/29/19	246.57	-
3004257	2009984	RS	Collection letter will be mailed 8/29/19	249.52	-
3005810	2132968	RS	Paid $200 on 8/7/19	250.55	-
3003861	2200179	RS	Paid $1,222.39 on 8/7/19	255.11	-
3003894	2069898	RS	Collection letter will be mailed 8/29/19	265.63	-
3003465	2011231	RS	Customer is deceased, placing lien on property	279.78	-
3004566	2202074	RS	Collection letter will be mailed on 8/22/19	282.90	-
3005721	2049608	RS	Collection letter will be mailed on 8/22/19	301.02	-
3006123	2019390	RS	Collection letter will be mailed on 8/22/19	304.49	-
3000128	2209697	RS	Collection letter will be mailed on 8/22/19	314.81	-
3007272	2074278	RS	Collection letter will be mailed on 8/12/19	329.25	-
3010273	2138308	CM	Collection letter will be mailed on 8/12/19	333.14	-
3007558	2109578	RS	Collection letter will be mailed on 8/15/19	350.82	-
3004459	2063338	RS	Paid $400 on 8/7/19	377.64	-
3004024	2004969	RS	Collection letter will be mailed 8/29/19	380.49	-
3003704	2011615	SC	Paid $1,605.27 on 8/6/19	1,007.02	-
3002756	2135128	RS	Paid $50 on 8/5/19	181.08	6.33
3000529	2106068	RS	Collection letter will be mailed on 8/15/19	139.55	10.45
3005470	2017719	RS	Collection letter will be mailed on 8/22/19	200.70	17.38
3009964	2038698	RS	Collection letter will be mailed on 8/22/19	303.87	21.99
3004754	2061198	RS	Paid $681.51 on 8/5/19	173.79	24.74
3000068	2113668	RS	Collection letter will be mailed on 8/22/19	236.30	29.26
3002334	2126448	RS	Payment arrangement on file for August	92.86	40.72
3000479	2200339	RS	Collection letter will be mailed on 8/15/19	84.34	49.37
3003933	2090978	RS	Collection letter will be mailed 8/29/19	195.15	60.05
3008802	2112508	RS	Paid $165 on 8/2/19	66.46	97.91
3004263	2117758	RS	Paid $200 on 8/8/19	231.53	106.51
3002813	2114338	RS	Collection letter will be mailed 8/29/19	146.55	111.42
3008792	2121088	RS	Collection letter will be mailed 8/29/19	48.67	112.25
3002363	2045808	RS	EAP of $350.00	209.94	120.61
3004292	2013614	RS	Collection letter will be mailed 8/29/19	232.13	132.02
3008804	2105358	RS	Paid $110 on 8/12/19	75.23	138.06

3002775	2097048	RS	Collection letter will be mailed 8/29/19	91.20	138.89
3002760	2129548	RS	Collection letter will be mailed 8/29/19	126.59	158.84
3002354	2091608	RS	Collection letter will be mailed 8/29/19	213.35	161.19
3004025	2094558	RS	Paid $200 on 8/9/19	252.00	192.43
3002477	2009142	RS	Collection letter will be mailed 8/29/19	226.89	219.00
3005207	2119158	RS	Collection letter will be mailed on 8/22/19	255.58	240.81
3005272	2119448	RS	Collection letter will be mailed on 8/22/19	143.08	244.06
3008923	2094088	RS	Collection letter will be mailed on 8/12/19	243.01	248.89
3002786	2016870	RS	Collection letter will be mailed 8/29/19	129.84	251.28
3002482	2068968	RS	Collection letter will be mailed 8/29/19	212.40	274.91
3002814	2052048	RS	Collection letter will be mailed 8/29/19	202.76	285.20
3003818	2066808	RS	Collection letter will be mailed 8/29/19	195.99	289.39
3003508	2124208	RS	Collection letter will be mailed 8/29/19	301.47	299.21
3007573	2134368	RS	Paid $450 on 8/5/19	330.58	344.23
3004207	2012492	RS	Collection letter will be mailed 8/29/20	276.41	345.76
3001833	2214395	RS	Collection letter will be mailed on 8/15/19	220.39	359.37
3005273	2119448	RS	Collection letter will be mailed on 8/22/19	376.24	384.59
3002362	2008831	RS	Paid $500 on 8/9/19	262.83	386.64
3004213	2103178	RS	Collection letter will be mailed 8/29/21	205.91	429.33
3003969	2012357	RS	Collection letter will be mailed 8/29/22	276.12	527.45
3007023	2021641	CM	Collection letter will be mailed on 8/12/19	289.34	664.14
3001411	2126808	RS	Collection letter will be mailed on 8/15/19	241.36	684.99
3000118	2128758	RS	Contacted Customer about account	46.25	819.11
3001539	2005415	CM	Working with Mgr. to get this account pd	-	1,233.37
3006151	2019497	RS	Customer is deceased, lien on property	188.39	1,466.04
3005078	2016362	RS	Collection letter will be mailed on 8/22/19	379.30	1,501.12
3000096	2000380	RS	Contacted Customer about account	315.55	1,572.27
3000222	2129908	RS	Contacted Customer about account	306.34	2,176.95
3006953	2053328	CM	Electric off for non-pay, lien placed on property	1,597.74	12,185.05
				20,220.47	29,163.58
				Total	**49,384.05**

Los Alamos County Utilities Department
Receivables More than 60 Days Inactive
August 1, 2019

YEAR	*OUTSTANDING 8/1*	*# OF ACCOUNTS*	*OUTSTANDING 7/1*	*# OF ACCOUNTS*
FY15	21,443.26	80	21,443.26	80
FY16	18,111.27	72	18,111.27	72
FY17	26,448.39	68	26,448.39	68
FY18	56,752.56	328	68,641.37	333
FY19	35,440.12	274	34,441.48	275
TOTAL	**$ 158,195.60**	**822**	**$ 169,085.77**	**828**

STATUS REPORTS

SAFETY

DEPARTMENT OF PUBLIC UTILITIES CLAIMS

JULY 2019

(Information provided by the County Risk Department)

TORT CLAIMS

None

WORKERS COMPENSATION

1. Customer Care Center employee may have carpal tunnel due to occupationally related repetitive motion data entry. The work station has been inspected by the Safety department and recommendations made regarding ergonomic equipment to be purchased by the DPU.

COUNTY PROPERTY DAMAGE

None

OSHA INCIDENT REPORT

Attached

	Hours Worked	Hours Worked	Hours Worked	Hours Worked	Hours Worked	Hours Worked
	ADMIN	EL DIST	EL PROD	GWS	WA PROD	WWTP
MONTH						
Jan - 2019	3589.0	1793.0	2317.0	4119.0	1678.0	1139.0
Feb - 2019	3221.0	1358.0	3244.0	3319.0	1132.0	1244.0
Mar - 2019	2563.0	1941.0	2332.0	3955.0	1641.0	1281.0
Apr - 2019	3592.0	1760.0	1890.0	3196.0	1199.0	1040.0
May - 2019	3512.0	1510.0	2149.0	4114.0	1731.0	1231.0
June - 2019	3085.0	1629.0	1975.0	4115.0	1855.0	1318.0
July - 2019	3622.0	1587.0	1587.0	3768.0	1591.0	1186.0
Aug - 2018	4982.0	1471.0	2240.0	3947.0	2456.0	2771.0
Sept - 2018	3150.0	1168.0	1421.0	3242.0	1198.0	1059.0
Oct - 2018	2499.0	1194.0	1270.0	3847.0	1181.0	1009.0
Nov - 2018	3476.0	1416.0	1506.0	3398.0	1182.0	1201.0
Dec - 2018	3204.0	1251.0	1372.0	3047.0	2427.0	946.0
Total Hrs Worked ->	40495.0	18078.0	23303.0	44067.0	19271.0	15425.0
Number of Recordable Injury and Illness Cases	1	1	0	1	0	1
OSHA Recordable Injury & Illness Incidence Rate	4.94	11.06	0.00	4.54	0.00	12.97
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	7.00	0.00	0.00