



# County of Los Alamos

1000 Central Avenue  
Los Alamos, NM 87544

## Agenda - Final Board of Public Utilities

*Cornell Wright, Chair; Steve Tobin, Vice-chair;  
Stephen McLin, Eric Stromberg, and Charles Nakhleh, Members  
Philo Shelton, Ex Officio Member  
Steven Lynne, Ex Officio Member  
Denise Derkacs, Council Liaison*

Wednesday, December 7, 2022

5:30 PM

Council Chambers & Zoom  
<https://us06web.zoom.us/j/89019066709>

### REGULAR MEETING

Members of the public wishing to attend may participate and provide public comment via Zoom:

Webinar Link: <https://us06web.zoom.us/j/89019066709> Webinar ID: 890 1906 6709  
One tap mobile : +12532158782,,89019066709# or +13462487799,,89019066709#  
Telephone: +1 253 215 8782 or +1 346 248 7799 or +1 408 638 0968 or +1 669 444 9171 or +1 669 900 6833 or +1 719 359 4580 or +1 253 205 0468 or +1 689 278 1000 or +1 301 715 8592 or +1 305 224 1968 or +1 309 205 3325 or +1 312 626 6799 or +1 360 209 5623 or +1 386 347 5053 or +1 507 473 4847 or +1 564 217 2000 or +1 646 876 9923 or +1 646 931 3860

#### PUBLIC COMMENTS:

Please submit written comments to the Board at [bpu@lacnm.us](mailto: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. 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.

#### 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.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. [16502-22](#)** Election of Board of Public Utilities Chair and Vice-chair for 2023  
Calendar Year  
**Pages 5 - 6**

**Presenters:** Cornell Wright, Chair of the Board of Public Utilities

**4.H. Approval of Board Expenses**

*There are none.*

**4.I. Preview of Upcoming Agenda Items****[16048-22](#)** Tickler File for the Next Three Months  
**Pages 7 - 12**

**Presenters:** Cornell Wright, Chair of the Board of Public Utilities

**5. PUBLIC HEARING(S)**

*There are none scheduled for this meeting.*

**6. CONSENT AGENDA**

*The following items are presented for Board approval under a single motion unless any item is withdrawn by a member for further Board consideration in the "Business" section of the agenda.*

**~ CONSENT MOTION ~**

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

**OR**

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

**6.A.**    [16038-22](#)    Approval of Board of Public Utilities Meeting Minutes

Pages 13 - 29

**Presenters:**    Board of Public Utilities

**6.B.**    [16679-22](#)    Approval of Amendment to Task Order No. 95, AGR16-044 with Parker Construction, LLC

Pages 30 - 33

**Presenters:**    James Alarid, Deputy Utilities Manager - Engineering

## **7.        BUSINESS**

**7.A.**    [AGR0900-22a](#)    Approval of AGR23-13 with Paymentus Corporation in the Amount of \$900,000 plus Applicable Gross Receipts Tax for the Purpose of Credit Card and Electronic Bill Payment Services.

Pages 34 - 64

**Presenters:**    Heather Garcia, Deputy Utilities Manager - Finance

**7.B.**    [16660-22](#)    Conservation Plan Addendum Approval

Pages 65 - 149

**Presenters:**    Conservation Specialist Abbey Hayward,  
Conservation Specialist

**7.C.**    [16661-22](#)    Resource Investigation Update

Pages 150 - 178

**Presenters:**    Jordan Garcia, Deputy Utilities Manager - Electric Production

## **8.        STATUS REPORTS**

**8.A.**    [16023-22](#)    Quarterly Conservation Program Update

Pages 179 - 180

**Presenters:**    Conservation Specialist Abbey Hayward,  
Conservation Specialist

**8.B.**    [16275-22](#)    Department of Public Utilities Quarterly Report - FY23/Q1

Pages 181 - 211

**Presenters:**    Philo Shelton, Utilities Manager and Catherine D'Anna, Public Relations Manager

**8.C.**    [16043-22](#)    Status Reports

Pages 212 - 222

**Presenters:**    Philo Shelton, Utilities Manager

**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 Human Resources at 505-662-8040 as soon as possible.

Complete Board of Public Utilities agenda packets, past agendas, videos, legislation and minutes can be found online at <https://losalamos.legistar.com>. Learn more about the Board of Public Utilities at <https://ladpu.com/BPU>.





# County of Los Alamos

## Staff Report

December 07, 2022

Los Alamos, NM 87544  
www.losalamosnm.us

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**Agenda No.:** 4.G.1.  
**Index (Council Goals):**  
**Presenters:** Cornell Wright, Chair of the Board of Public Utilities  
**Legislative File:** 16502-22

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### Title

Election of Board of Public Utilities Chair and Vice-chair for 2023 Calendar Year

### Recommended Action

**The board should elect a Chair and Vice-chair using the method agreed upon at the December 7, 2022 meeting.**

### ..Utilities Manager's Recommendation

The Utilities Manager recommends that a Chair and Vice-chair of the Board of Public Utilities be elected for 2023 in accordance with LAC Ordinance Sec. 40-41.

### Body

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

### Procedure to be Agreed Upon by General Consensus for the 2023 Elections:

First use the following steps to elect a new Chair, and then repeat the process for the Vice-chair. After the Vice-chair is elected, the previous Chair continues to conduct the meeting. The outgoing Chair will continue to Chair the remainder of the January meeting through its conclusion, with the incoming Chair assuming Chair responsibilities immediately following conclusion of the January meeting.

1. The current Chair says "nominations are now in order for the office of Chair of the Board of Public Utilities"
2. Any member, including the chair, can nominate one person. After each nomination, the current Chair states that "[NAME] is nominated by Member [NAME]. Are there any further nominations?"
3. When it appears that there are no further nominations, the current Chair will ask once more for any final nominations. If there is no further response, the Chair will then declare the nomination closed.
4. Have a roll call vote for the Chair position.
5. If no one receives a majority of the votes and more than two nominations received votes, drop the nomination that received the fewest number of votes and the nominations that

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receive no votes and go back to step 4.

6. If there are only two nominations and the vote is a tie, try a second roll call vote. If that also results in a tie, the current Chair chooses between the two nominees.

7. If the person elected declines the position, go back to step 1 with the provision that said elected person may not be nominated again.

### **Alternatives**

None - The Board is required by Ordinance to elect a chair and vice-chair annually in January.



# County of Los Alamos

## Staff Report

December 07, 2022

Los Alamos, NM 87544  
www.losalamosnm.us

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**Agenda No.:**

**Index (Council Goals):**

**Presenters:** Cornell Wright, Chair of the Board of Public Utilities

**Legislative File:** 16048-22

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**Title**

Tickler File for the Next Three Months

**Attachments**

A - BPU Tickler Jan-Mar 2023



# County of Los Alamos

Los Alamos, NM 87544  
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## Tickler

**JANUARY - MARCH 2023**

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File Number

Title

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**Agenda Date: 01/11/2023**

<b>16272-23</b>	<b>Presentation</b>	<b>PRESENTATION</b>
	Carbon Free Power Project Presentation by Mason Baker, UAMPS CEO & General Manager and Shawn Hughes, CFPP Project Director.	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Jordan Garcia, Deputy Utilities Manager - Electric Production
<b>16666-23</b>	<b>Briefing/Report (Dept,BCC) - Action Requested</b>	<b>Presentations</b>
	Introduction of New Council Liaison to the BPU (Council Vice Chair _____)	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Cornell Wright

**Agenda Date: 01/18/2023**

<b>16662-23</b>	<b>Budget Item</b>	<b>Business</b>
	Budget Revision of \$2.5 million to \$4 million	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Jordan Garcia, Deputy Utilities Manager - Electric Production and Heather Garcia, Deputy Utilities Manager - Finance
<b>16501-23</b>	<b>Briefing/Report (Dept,BCC) - Action Requested</b>	<b>BUSINESS</b>
	Affirmation of the Incorporated County of Los Alamos Open Meetings Resolution No. XX-XX	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Cornell Wright, Chair of the Board of Public Utilities
<b>16505-23</b>	<b>Briefing/Report (Dept,BCC) - Action Requested</b>	<b>BUSINESS</b>
	Schedule and Selection of Members to Attend Boards & Commissions Luncheons for 2023	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Cornell Wright, Chair of the Board of Public Utilities
<b>16037-23</b>	<b>Minutes</b>	<b>Consent</b>
	Approval of Board of Public Utilities Meeting Minutes	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Board of Public Utilities

File Number	Title	
AGR0908-23a	<b>General Services Agreement</b>	<b>CONSENT</b>
	Approval of Services Agreement No. AGR 23-48 with [vendor] in the amount of \$[amount], plus Applicable Gross Receipts Tax, for the Purpose of El Vado Transformer Installation	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> James Alarid, Deputy Utilities Manager - Engineering
16692-23a	<b>Construction Contract</b>	<b>CONSENT</b>
	Award of Bid No. ____ - ____ for the Purpose of TA-50 Water Transmission Line Relocation [enter the title of the bid] with [Name of Vendor] in the Amount of \$[amount of contract], plus Applicable Gross Receipts Tax.	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> James Alarid, Deputy Utilities Manager - Engineering
16667-23	<b>Briefing/Report (Dept,BCC) - Action Requested</b>	<b>General Board Business</b>
	Board of Public Utilities Annual Self-evaluation for 2022 (final draft)	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Cornell Wright, Chair of the Board of Public Utilities
16035-23	<b>Calendar</b>	<b>General Board Business</b>
	Tickler File for the Next Three Months	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Board of Public Utilities
14160-23	<b>Report</b>	<b>Status Reports</b>
	Status Reports	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Philo Shelton, Utilities Manager
<b>Agenda Date: 01/26/2023</b>		
16699-23	<b>Presentation</b>	<b>PRESENTATION</b>
	<b>SPECIAL TOWN HALL</b>	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Board of Public Utilities
<b>Agenda Date: 02/01/2023</b>		
16506-23	<b>Briefing/Report (Dept,BCC) - Action Requested</b>	<b>BUSINESS</b>
	Approval of Board of Public Utilities Annual Self Evaluation for 2022	
	<b>Department Name:</b> DPU	<b>Length of Presentation:</b>
	<b>Drop Dead Date:</b>	<b>Sponsors:</b> Cornell Wright, Chair of the Board of Public Utilities
16663-23	<b>Briefing/Report (Dept, BCC) - No action requested</b>	<b>Presentation</b>
	Presentation of Electric Production Budgeting Process	

File Number	Title	
	<b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>Length of Presentation:</b> <b>Sponsors:</b> Jordan Garcia, Deputy Utilities Manager - Electric Production
16500-23	<b>Briefing/Report (Dept, BCC) - No action requested</b> Quarterly Update on Utility System - Water System <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>PRESENTATION</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Clay Moseley, Deputy Utilities Manager - GWS Services
16665-23	<b>Briefing/Report (Dept,BCC) - Action Requested</b> Asset Management Teams (AMT) Presentation <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>Presentations</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> James Alarid, Deputy Utilities Manager - Engineering
<b>Agenda Date: 02/15/2023</b>		
16632-23	<b>Budget Item</b> FY2024 & FY2025 Preliminary Budget Presentation <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>Business</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Heather Garcia, Deputy Utilities Manager - Finance
16566-23	<b>Calendar</b> Tickler File for the Next Three Months <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>CALENDAR</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Board of Public Utilities
16040-23	<b>Minutes</b> Approval of Board of Public Utilities Meeting Minutes <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>CONSENT</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Board of Public Utilities
16694-23a	<b>Briefing/Report (Dept,BCC) - Action Requested</b> Award of Bid No.IFB23-XX for the Purpose of [Barranca Mesa Tank #2] with [Name of Vendor] in the Amount of \$[amount of contract], plus Applicable Gross Receipts Tax. <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>CONSENT</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> James Alarid, Deputy Utilities Manager - Engineering
16696-23a	<b>Briefing/Report (Dept,BCC) - Action Requested</b> Award of Bid No. IFB23-49 for the Purpose of [IFB23-49 Ridge Park Lift Station Elimination] with [Name of Vendor] in the Amount of \$[amount of contract], plus Applicable Gross Receipts Tax. <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>CONSENT</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> James Alarid, Deputy Utilities Manager - Engineering

File Number	Title	
16565-23	<b>Report</b> Status Reports <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>STATUS REPORTS</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Philo Shelton
<b>Agenda Date: 03/01/2023</b>		
16668-23	<b>Status Report</b> Department of Public Utilities Annual Report - Fiscal Year 2022 <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>Presentations</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Philo Shelton and Catherine D'Anna
16669-23	<b>Status Report</b> Department of Public Utilities Quarterly Report - Fiscal Year 2023 / Quarter 2 <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>Presentations</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Philo Shelton and Catherine D'Anna
16670-23	<b>Briefing/Report (Dept, BCC) - No action requested</b> Briefing from Council Vice-Chair _____ on the County's 2023 Strategic Leadership Plan <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>Presentations</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Steven Lynne, County Manager
16671-23	<b>Briefing/Report (Dept,BCC) - Action Requested</b> Results of the Voice of the Customer Survey <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>Presentations</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Catherine D'Anna
16673-23	<b>Status Report</b> Quarterly Conservation Program Update (at March, June, September, and December BPU Meetings.) <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>PRESENTATIONS</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Conservation Specialist Abbey Hayward
<b>Agenda Date: 03/15/2023</b>		
16672-23	<b>Budget Item</b> Approval of the Calculation of Profit Transfer from Electric and Gas Funds for Fiscal Year 2023 <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>Consent</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Heather Garcia
16041-23	<b>Minutes</b> Approval of Board of Public Utilities Meeting Minutes <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>CONSENT</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Board of Public Utilities

<b>File Number</b>	<b>Title</b>	
<b>16581-23</b>	<b>Calendar</b> Tickler File for the Next Three Months <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>CONSENT</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Board of Public Utilities
<b>16664-23</b>	<b>Budget Item</b> Approval of the DPU Budget for FY2024 & FY2025 <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>Presentations</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Heather Garcia, Deputy Utilities Manager - Finance
<b>16705-23</b>	<b>Report</b> Status Reports <b>Department Name:</b> DPU <b>Drop Dead Date:</b>	<b>STATUS REPORTS</b>  <b>Length of Presentation:</b> <b>Sponsors:</b> Philo Shelton





# County of Los Alamos

## Staff Report

December 07, 2022

Los Alamos, NM 87544  
www.losalamosnm.us

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**Agenda No.:** 6.A.  
**Index (Council Goals):**  
**Presenters:** Board of Public Utilities  
**Legislative File:** 16038-22

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### **Title**

Approval of Board of Public Utilities Meeting Minutes

### **Recommended Action**

**I move that the Board of Public Utilities approve the meeting minutes 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 suggested changes.

### **Attachments**

- A - Draft BPU Work Session Minutes\_November 2, 2022
- B - Draft BPU Regular Meeting Minutes\_November 16, 2022
- C - Utilities Manager Report\_November 16, 2022



# County of Los Alamos

1000 Central Avenue  
Los Alamos, NM 87544

## Minutes

### Board of Public Utilities Work Session

*Cornell Wright, Chair; Steve Tobin, Vice Chair;  
Eric Stromberg, Stephen McLin and Charles Nakhleh, Members;  
Philo Shelton, Ex Officio Member  
Steve Lynne, Ex Officio Member  
Denise Derkacs, Council Liaison*

Wednesday, November 2, 2022

5:30 PM

Zoom

<https://us06web.zoom.us/j/81863758934>

#### REMOTE MEETING

#### 1. CALL TO ORDER

This work session of the Incorporated County of Los Alamos Board of Public Utilities was held on Wednesday, November 2, 2022 via Zoom videoconferencing platform. Board Chair Cornell Wright called the meeting to order at 5:30 p.m. Members of the public were notified of the ability to live-stream the meeting online and submit public comment during the meeting. The following board members were in attendance:

**Present** 5 - Wright, Tobin, Stromberg, Shelton and Lynne

**Absent** 2 - McLin and Nakhleh

#### 2. PUBLIC COMMENT

Chair Wright opened the floor for public comment on any items and for those not otherwise included on the agenda. There was none.

#### 3. APPROVAL OF AGENDA

\*\*\*\*\*

Member Stromberg moved that the agenda be approved as presented [amended]. The motion passed by the following vote:

\*\*\*\*\*

**Yes:** 3 - Board Member Wright, Board Member Tobin and Board Member Stromberg

**Absent:** 2 - Board Member McLin and Board Member Nakhleh

#### 4. PRESENTATIONS

##### 4.A. 16273-22 Presentation of the 2023 Electric Reliability Plan

Mr. Marez provided a copy of his presentation slides in the meeting packet. He also presented the following summary:

The DPU continually updates the Electric Reliability Plan as a working document to

capture the current distribution system conditions resulting from our Asset Management Program and direction from the Board of Public Utilities. The plan also includes some historical information for context. It is intended to be a guide for the Electric Distribution Asset Management Team. The document is not intended to be a published report and is provided here to facilitate a high level discussion with our governing bodies. Mr. Marez walked the Board through the updated 2023 Electric Reliability Plan with the goal of seeking feedback and consensus on the report. He also addressed the most recent outages along with lessons learned and changes needed within the operation.

## **5. BUSINESS**

### **5.A. 16563-22 Action to Suspend Procedural Rules for Work Session**

\*\*\*\*\*

**Member Wright moved that the Board of Public Utilities suspend their procedural rules for the November 2, 2022 work session so that formal action may be taken. The motion passed by the following vote:**

\*\*\*\*\*

**Yes: 3 - Board Member Wright, Board Member Tobin and Board Member Stromberg**

**Absent: 1 - Board Member McLin and Board Member Nakhleh**

### **5.B. 16545-22a Approval of Budget Revision 2023-16 for Increases to Salaries and Benefits for all union and nonunion DPU Employees.**

Ms. Garcia, Mr. Shelton, and Ms. Helen Perraglio, LAC Chief Financial Officer presented. This is a summary of their remarks:

Over the past few months, the County has been experiencing an increasingly volatile labor market. Recruitment and retention have become more difficult and previous problem areas have only worsened. The three primary causes are general labor shortages as a result of COVID, rapid inflation increase, and relatively large compensation changes with some of the County's labor competitors. Vacancies have become severe in some divisions, including DPU's Gas, Water, and Sewer Division.

Some challenges are global - examples include:

- \* CPI up 8.5% year over year in July
- \* Smaller recruitment pools - labor shortage
- \* More offers rejected due to lack of housing options
- \* Many local government competitors pick up a portion of the employee required contributions to the Public Employers Retirement Association (PERA)

As a result of these market factors and based upon direction from County Council to attempt to address these issues, staff worked to explore, develop and implement options to improve the County's competitive position. In addition to working on options to improve the County's competitive position for the non-union DPU employees, in September 2022, staff met with the unions and agreed to a limited scope of negotiations. Agreements have been tentatively reached and are in the process of being ratified. This budget revision is being requested for salary and benefit adjustments for both non-union members and union increases.

The significant changes to salaries and benefits calculated in this budget revision include:

- 1) Increases to labor budgets in DPU of approximately 10% in FY2023 (regular wages, stability pay, overtime, and special pay);
- 2) County increase of the portion of PERA member contributions of approximately 5%;
- 3) Other benefit increases based on base salary calculations (Medicare, Retiree Health Care, LAC Retirement).

Budget Revision 2023-16 reflects all of the changes to salaries and benefits impacted by proposed increases. The total change in salaries and benefits for Electric Production is \$157,000, Electric Distribution is \$455,000 (which includes changes for employees in Administration and Engineering), Gas Distribution is \$133,000, Water Distribution is \$137,000, Water Production is \$111,000, and Wastewater is \$207,000. A total of \$1,200,000 to remaining FY23 approved budgets for the DPU.

If the budget revision is not approved, the changes to salaries and benefits could be funded by cuts to projects and operating budgets approved in FY2023. The financial impact will be an increase of \$1,200,000 to FY2023 approved budgets. Bringing total budgets for FY2023 for salaries and benefits to \$19,980,105.

**The following documents were provided in the meeting packet:**

A - Budget Revision 2023-16

B - DPU Budget to Actual Report as of 10-27-2022

There was no Public Comment or board discussion. All board members made supportive statements.

\*\*\*\*\*

**Member Stromberg moved that the Board of Public Utilities approve Budget Revision 2023-16. I further move that the budget revision be included in the minutes as an attachment and forwarded to Council for approval. The motion passed by the following vote:**

\*\*\*\*\*

**Yes: 3 - Board Member Wright, Board Member Tobin and Board Member Stromberg**

**Absent: 1 - Board Member McLin and Board Member Nakhleh**

**5.C. [16562-22](#)**

**Discussion of Remote vs. In-person Meetings**

Chair Wright opened the floor for discussion. Mr. Alvin Leaphart, County Attorney provided some clarifying information. He stated that all virtual meetings are not a component of the open meetings act. And the Attorney General has not provided additional guidance. Mr. Leaphart advised that an in-person component resume for BPU meetings. Mr. Stromberg stated that he preferred a hybrid meeting rather than fully in-person. Mr. Shelton commented that County Council is currently holding hybrid meetings. Mr. Leaphart also clarified that under the Open Meetings Act board members and staff can participate remotely if needed. Mr. Lynne stated that County Council prefers that hybrid meetings be the standard going forward, which is an in-person meeting with remote access for the public, staff and the board. Chair Wright opened the floor for public comment. Mr. Matt Heavner was in attendance over Zoom and stated that he is in favor of a hybrid format. Chair Wright stated that the November 16th Regular BPU Meeting would be held in a hybrid format.

I move that the Board of Public Utilities [enter SUGGESTED MOTION here. If there is no formal suggested motion here enter "None". If item is also going to Council for approval, include the words, "and forward to Council for approval."]

5.D. [16379-22](#) Approval of the 2023 Board of Public Utilities Meeting Calendar

Chair Wright called for board discussion; there was none. Chair Wright opened the floor for public comment on this item; there was none.

\*\*\*\*\*

**Member Stromberg moved the Board of Public Utilities approve the proposed board meeting calendar for 2023 as presented. The motion passed by the following vote:**

\*\*\*\*\*

**Yes: 3 - Board Member Wright, Board Member Tobin and Board Member Stromberg**

**Absent: 1 - Board Member McLin and Board Member Nakhleh**

5.E. [16503-22](#) Appointment of Board Member to County Audit Committee for 2023

Chair Wright asked Mr. Stromberg to provide a summary of his committee thus far. Mr. Stromberg stated that he has just been invited to his first meeting, so participation has been minimal. Ms. Perraglio did confirm that the committee does not meet often. She also provided an overview of the membership and participation expectations. Mr. Stromberg stated that he would be happy to continue serving on the committee.

\*\*\*\*\*

**Member Wright moved that Member Stromberg be reappointed to the Audit Committee for the 2023 calendar year. The motion passed by the following vote:**

\*\*\*\*\*

**Yes: 3 - Board Member Wright, Board Member Tobin and Board Member Stromberg**

**Absent: 1 - Board Member McLin and Board Member Nakhleh**

5.F. [16561-22](#) Board of Public Utilities - Continued Discussion of LARES Recommendations

Chair Wright provided version 4 of the LARES Discussion Summary spreadsheet that he has been maintaining. He asked board members to continue the discussion which began at the August 17, 2022 Regular BPU Meeting. He limited the discussion to 30 minutes and asked board to continue at the next meeting. When all recommendations have been reviewed, the BPU will forward their comments and recommendations to County Council. Chair Wright updated the spreadsheet during the meeting. He will provide an updated copy to Ms. Casados to share with all board members. At the conclusion of the discussion Chair Wright called for public comment. Mr. Heavner was present via Zoom and spoke. His detailed comments are available on the meeting recordings.

5.G. [16377-22](#) Begin 2022 Board of Public Utilities Annual Self Evaluation

Chair Wright asked the board to begin the annual self-evaluation of its own performance

as outlined in section 3.9 of the BPU Procedures Manual. The current self-evaluation follows the template taken from the APPA Handbook for Public Power Policymakers. In preparation for this initial discussion, board members are asked to review the current format, along with the results from the 2021 self-evaluation. Chair Wright asked board members to review the documents provided in the meeting packet and provide suggestions for the 2022 questions:

A - 2021 Final Self-evaluation

B - 2022 BPU Self-Evaluation Questions

Chair Wright will gather suggestions and update the questions. Ms. Casados will the distribute to the board and request that they complete the form before the next regular board meeting.

## **6. PUBLIC COMMENT**

Chair Wright opened the floor for public comment on any topic. Ms. Joni Arends participated remotely over Zoom. She commented that she is a member of Concerned Citizens for Nuclear Safety (CCNS). She stated that the group is concerned about new construction in the County and the LANL and regional drinking water aquifer. Her detailed comments are available on the meeting recordings.

## **7. ADJOURNMENT**

The meeting adjourned at 7:41p.m.

\*\*\*\*\*

### **APPROVAL**

\_\_\_\_\_  
Board of Public Utilities Chair Name

\_\_\_\_\_  
Board of Public Utilities Chair Signature

\_\_\_\_\_  
Date Approved by the Board



LOS ALAMOS

# County of Los Alamos

## Minutes

### Board of Public Utilities

1000 Central Avenue  
Los Alamos, NM 87544

*Cornell Wright, Chair; Steve Tobin, Vice-chair;  
Stephen McLin, Eric Stromberg, and Charles Nakhleh, Members  
Philo Shelton, Ex Officio Member  
Steven Lynne, Ex Officio Member  
Denise Derkacs, Council Liaison*

Wednesday, November 16, 2022

5:30 PM

Council Chambers & Zoom  
<https://us06web.zoom.us/j/85994890278>

#### REGULAR MEETING

#### 1. CALL TO ORDER

The regular meeting of the Incorporated County of Los Alamos Board of Public Utilities was held on Wednesday, November 16, 2022 at 1000 Central Ave., Council Chambers. Board Chair Cornell Wright called the meeting to order at 5:30 p.m. Members of the public were notified of the ability to participate and provide public comment in person or via Zoom. The following board members were in attendance.

Present 5 - Wright, McLin, Nakhleh, Stromberg and Shelton

Remote 1 - Tobin

Absent 1 - Lynne

#### 2. PUBLIC COMMENT

Chair Wright 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

Chair Wright called for discussion and a motion to approve the agenda. Mr. Shelton commented that item 6.B. had an error in the staff report so an addendum was distributed to the board the morning of November 16th. A copy of the revised staff report is **attached** to these minutes. Chair Wright recommended that the agenda be approved as amended.

\*\*\*\*\*

Member McLin moved that the agenda be approved as amended. The motion passed by the following vote:

\*\*\*\*\*

Yes: 5 - Board Member Wright, Board Member Tobin, Board Member McLin,  
Board Member Nakhleh and Board Member Stromberg

#### 4. BOARD BUSINESS

##### 4.A. Chair's Report

Chair Wright reported on the following items:

- 1). He commended DPU for the amount of information shared regarding the November 16th power outage. Information was shared by Ms. D'Anna on Face Book, Twitter, Code Red, Press Releases and Next Door.
- 2). Election of BPU Chair is on the agenda in December. He encouraged all board members to consider running for chair. He has served for two years and stated that the board, staff and the public benefit from shared leadership. He hopes that all members serve at least once.
- 3). A presentation by UAMPS is planned for a Special BPU Meeting on January 11, 2023/

#### **4.B. Board Member Reports**

There were none.

#### **4.C. Utilities Manager's Report**

Mr. Shelton and Mr. Marez opened with a special presentation on the power outage that began on November 13 and was resolved on November 16. A copy of their presentation slides are **attached** to these minutes. The responded to board member inquiries and provided clarifying information as appropriate.

Mr. Shelton reviewed his written report which is also **attached** to the minutes. He provided summarized comments and responded to board member inquiries as appropriate.

#### **4.D. County Manager's Report**

Ms. Julie Williams-Hill, LAC Communications & Public Relations Administrator represented the County Manager. She also commended DPU staff for their work on the power outage and thanked Ms. D'Anna for all of the information that she shared with the public.

#### **4.E. Council Liaison's Report**

Councilor Derkacs highlighted items from recent council meetings. Details are available in the council minutes available on the website  
There were no board member questions or comments.

#### **4.F. Environmental Sustainability Board Liaison's Report**

Mr. Shelton stated that he has been in communication with the ESB staff liaison. He also mentioned that Council approved new ESB members a their November 15 meeting. However, the new ESB members do not attend their first meeting until November 17. He anticipates that a liaison to the BPU will be appointed by December.

#### **4.G. General Board Business**

##### **4.G.1. [16381-22](#) Agenda Templates for 2023 BPU Regular Meetings and Work Sessions**

Chair Wright called for board discussion; there was none.

\*\*\*\*\*

**Member McLin moved that the Board of Public Utilities approve the agenda templates for the 2023 BPU Regular Meetings and Work Sessions as presented. The motion passed by the following vote:**

\*\*\*\*\*



**Yes: 5 - Board Member Wright, Board Member Tobin, Board Member McLin, Board Member Nakhleh and Board Member Stromberg**

**4.G.2. [16380-22](#) 2022 Board of Public Utilities Annual Self Evaluation**

Chair Wright reviewed revisions to the 2022 BPU Self-Evaluation Questions. He only received comments from Member Stromberg, so he requested that all board members review and he will make a second revision. He opened the floor for public comment, there was none. Chair Wright asked members to submit their responses and the board will discuss at the next reasonable opportunity.

**4.H. Approval of Board Expenses**

There were none.

**4.I. Preview of Upcoming Agenda Items**

**[16047-22](#) Tickler File for the Next Three Months**

Chair Wright opened the floor for discussion on upcoming agenda items. He stated that the self-evaluation discussion may be moved to January if the December agenda is too full. He reminded the board of the Special Meeting on January 11, 2023. Mr. Shelton also stated that UAMPS will present on Alternative Resource Options at the December 7th meeting.

**5. PUBLIC HEARING(S)**

**5.A. [16330-22-b](#) Approval of Modifications to the Department of Public Utilities Rules & Regulations GR 13 Disconnection and Reconnection of Service, and GR 17 Presentation and Payment of Bills**

Ms. Garcia presented and provided the following summary:

At the October 19th regular BPU meeting, staff presented proposed changes and additions to Rules 13.08, 13.09, and 17.05. BPU directed staff to revisit the rules in their entirety to remove redundancies and clarify sections that were not included in the last presentation. Staff worked with the Attorney's office to complete the requested changes, which are included in this presentation. The following information is repeated from the previous staff report covering the larger proposed changes to the rules.

In 2021, BPU approved AGR21-57 with IC Systems for accounts receivable collection services. At this time, staff found there was no clear guidance regarding which inactive accounts will be referred to a collection service or lien under NMSA 1978 section 3-37-6&7. The proposed rules will clarify account collection and property lien processes for both customers and staff.

The purpose of property liens is to recover unpaid charges for electric, gas, water, sewer and refuse services by the county. Currently under NMSA 1978 section 3-37-6, DPU will lien properties with outstanding balances of charges imposed by county ordinances for utility services. Under this law, landlords may submit notice in writing to DPU clarifying tenant and owner responsibility of payment for services. If a "landlord" letter is on file with DPU, any inactive accounts with outstanding balances are referred to 3rd party collection

services. If a letter is not on file, the responsibility falls to the owner of the property and a lien is processed through the attorney's office and filed with the county clerk's office.

These rules will clarify and provide further information to customers regarding the process of collections, how accounts are referred to collection services, which accounts will have liens placed, how the liens are processed and calculated, and how release of liens are handled with DPU. These rules capture current practices and are in compliance with related laws and regulations.

In addition, DPU is proposing changes to GR 17.05 Payment of Bills. Changes to this rule is to provide guidance to customers and staff regarding refunds on active accounts. Common practice is to roll forward any credit balances on active accounts and apply them to the next bill for services. This cuts down on administrative time and resources spent preparing and processing refunds for small amounts. This rule change would clarify and memorialize common practices in customer care.

These rules were presented to BPU at the regular session on October 19, 2022. The board requested that staff expand the revision and updates to other sections of GR-13 and GR-17 to ensure accuracy and consistency throughout the rules. These requested changes have been included in the final packet for board consideration.

If the new rules presented are not approved, DPU will continue current practices under NMSA 1978 section 3-37-6 and NMSA 1978 section 3-37-7 regarding accounts receivables and property liens, but will not have clear parameters for accounts referred to 3rd party collection agency vendors or how long liens should be held on accounts. If rule changes for Presentation and Payment of Bills is not approved, staff will continue to work with customers regarding refunds and applied credits. The fiscal and staff impact is that approval of the recommended additions of rules will capture current practices and help clarify processes for customers and staff.

The following documents were provided in the meeting packet.

A - GR 13 Disconnection and Reconnection of Service

B - GR 17 Presentation and Payment of Bills

Chair Wright opened the floor for discussion. Members did point out some minor typos which Ms. Garcia said she could easily correct and would not affect the intent of the documents. She also responded to board member inquiries and provided clarifying information as appropriate. Chair Wright opened the floor for public comment; there was none.

\*\*\*\*\*

**Member Wright moved that the Board of Public Utilities Approve the Amendments to the Department of Public Utilities Rules and Regulations, Disconnection and Reconnection of Service and Presentation and Payment of Bills. The motion passed by the following vote:**

\*\*\*\*\*

**Yes: 5 - Board Member Wright, Board Member Tobin, Board Member McLin, Board Member Nakhleh and Board Member Stromberg**

- 5.B. [OR0963-22-a](#) Approval of Ordinance No. 722 Authorizing the Execution and Delivery of a Water Fund Project Loan/Grant Agreement for Construction of Phase II of the Bayo New Non-Potable Water Tank and Existing Tank Upgrades.

Mr. Alarid presented and provided the following summary:

Ordinance 722 will authorize the Department of Public Utilities (DPU) to execute the attached loan/grant agreement to construct phase II of the new Bayo non-potable water tank and construct improvements to the existing storage tank. The New Mexico Finance Authority (NMFA), through the Water Trust Board (WTB) has awarded the DPU a grant in the amount of \$2,190,000 and loan in the amount of \$1,460,000 (0% interest, 0.25% annual fee, 20-year term) in the 2022 funding cycle. As a condition of the award the DPU must match \$400,000 to the cost of the project.

DPU received a loan/grant from the NMFA/WTB in 2020 in the amount of \$900,000 for the project. Inflation from the time of submitting the application to the time of award caused the price of the project to more than double, so the project was split into two phases. The 2020 award was used to fund Phase I of the project which consists of the site piping, metering and miscellaneous site improvements to accommodate the new tank. The 2022 award will fund Phase II of the project which will complete the new tank and make improvements to the existing open top tank. The storage will be increased from 190,000 gallons to 1,000,000 gallons. This will allow a full day's discharge to be captured from the plant, increasing the amount of water that can be delivered to the community for irrigation.

The ordinance is scheduled to be introduced in the November 29, 2022 Council meeting and the public hearing is scheduled on December 13, Council meeting. The loan/grant closing is scheduled for January 20, 2023. The project was designed in-house and is shovel ready. The project will be bid as soon as the loan/grant closing is complete and be constructed in the fall 2023. If the ordinance is not approved staff will consider the project next year when Water Trust Board applications are due.

The project has been budgeted in fiscal year 2023 in the amount of \$2,929,880, which meet DPU's match requirement. BPU established a goal to maintain the debt service coverage ratio of 1.6 or greater for every fiscal year. Attachment C shows the projected debt service coverage ratios are projected greater than 1.6.

The following documents were provided in the meeting packet:

- A - Ordinance 722
- B - WPF-5673 Loan/Grant Agreement
- C - Credit & Debt Analysis

Chair Wright opened the floor for board discussion; there was none. He then opened the floor for public comment; there was none.

\*\*\*\*\*

**Member Stromberg move that the Board of Public Utilities approve Ordinance 722 and forward to Council for approval. The motion passed by the following vote:**

\*\*\*\*\*

**Yes: 5 - Board Member Wright, Board Member Tobin, Board Member McLin, Board Member Nakhleh and Board Member Stromberg**

## **6. CONSENT AGENDA**

\*\*\*\*\*

**Member McLin moved 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. The motion passed by the following vote:**

\*\*\*\*\*

**Yes: 5 - Board Member Wright, Board Member Tobin, Board Member McLin, Board Member Nakhleh and Board Member Stromberg**

- 6.A. [16036-22](#) Approval of Board of Public Utilities Meeting Minutes

**I move that the Board of Public Utilities approve the meeting minutes as presented:**

- 6.B. [16421-22a](#) Award of Bid No. IFB 23-41 for the Purpose of the Utilities Portion of the 33rd, 34th & Arkansas Street Road Roadway and Utility Upgrade Project with TLC Plumbing and Utility.

**I move that the Board of Public Utilities approve the Award of Bid No. IFB 23-41 for the Purpose of the Utilities Portion of the 33rd, 34th & Arkansas Street Road Roadway and Utility Upgrade Project with TLC Plumbing and Utility, in the Amount of \$772,460 and a contingency in the amount of \$115,869, for a total of \$888,329, plus Applicable Gross Receipts Tax and forward to Council for approval.**

- 6.C. [AGR0823-22a](#) **Approval of Services Agreement No. AGR23-917 with DUB-L-EE, LLC in the amount of \$500,000, plus applicable gross receipts tax, for the purpose of On-Call and Emergency Utility Repair Services**

**I move that the Board of Public Utilities approve Services Agreement No. AGR23-917 with DUB-L-EE, LLC in the amount of \$500,000, plus applicable gross receipts tax, for the purpose of On-Call and Emergency Utility Repair Services and forward to Council for approval.**

## **7. BUSINESS**

- 7.A. [16633-22](#) Approval of Agreement No. AGR23-911, Collection Agreement Between the Incorporated County of Los Alamos and the U.S. Department of Agriculture, U.S. Forest Service Santa Fe National Forest.

Mr. Shelton presented and provided the following summary:

As part of the San Ildefonso Native Claims Settlement Act of 2005, Los Alamos County is authorized to purchase six parcels of land adjacent to the townsite for fair market value. While the transfer of these parcels is already authorized by this congressional act, certain NEPA and other clearance work must be performed by the Forest Service before the lands can leave federal jurisdiction and pass to the County. A majority of these activities must be performed by the Forest Service, and the County is obligated to reimburse the government for the cost of this work. Los Alamos County has been encouraging the Forest Service to proceed with this work since the Act's passage in 2006, but were informed that they would not begin our work until transfer of lands to San Ildefonso Pueblo was completed. The San I land transfer was completed in 2011. To date the Forest Service has completed much of the work in a prior collection's agreement at

approximately \$247,620.

This Agreement lists the individual tasks to be completed by the Forest Service as well as other tasks to be completed by the County with USFS oversight. Included in the County's obligations are hiring an archaeologist to complete cultural surveys of the parcels, boundary surveys, and real estate documentation. The USFS will complete the NEPA clearances and perform appraisals on all the parcels. This work is expected to take approximately three to four years to complete for all the parcels.

Money for completion of the preparatory work under this Agreement will be shared with the general fund in a 50/50 split, DPU's portion of which is included in the Water Production budget for FY23. Money for actual purchase of the parcels has not been budgeted by Utilities or by County general fund. Once land appraisals are completed then a budget can be established for the land purchases.

As a federal agency, the USFS requires environmental and lands survey work be performed to their standards. The split of work between County and USFS that appears in the Agreement was negotiated in an effort to keep costs down. There is no alternative to the USFS performing the work included in the Agreement if the County still wants to acquire the land parcels.

It is currently anticipated that the DPU and General County will split these costs. There is some staff impact for managing the County's portion of the required work. FY23 Water Production budget has a budget of \$150,000 for this land acquisition costs and the Forest Service Contract is anticipated to use \$104,056 of this budget. If approved, staff will prepare a budget revision for the General County portion of their portion of these costs.

The following documents were provided in the meeting packet:

A - AGR23-911\_Collection Agreement Between LAC\_USDA\_USFS

B - USFS\_Tracts\_Contour

Chair Wright opened the floor for public comment; there was none. He then opened the floor for board discussion; all members participated. Mr. Shelton responded to board member inquiries and provided clarifying information as appropriate.

\*\*\*\*\*

**Member Nakhleh moved that BPU approve Agreement No. AGR23-911, Collection Agreement Between the Incorporated County of Los Alamos and the U.S. Department of Agriculture, U.S. Forest Service Santa Fe National Forest in an amount not to exceed \$208,111.43, plus Applicable Gross Receipts Tax, the costs to be shared equally between the Utility Department of Public Utilities and the General County, for the purpose of clearance surveys and land appraisals prior to conveyance of lands to Los Alamos County and forward to County Council for approval. The motion passed by the following vote:**

\*\*\*\*\*

**Yes: 4 - Board Member Wright, Board Member Tobin, Board Member Nakhleh and Board Member Stromberg**

**No: 1 - Board Member McLin**

## **8. STATUS REPORTS**

**16042-22**

Status Reports

Mr. Shelton reported that 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 - Mr. Shelton provided additional information about a tort claim.
- Mr. Shelton responded to board member inquiries and provided clarifying information as appropriate. There was no public comment or board discussion.

**9. PUBLIC COMMENT**

Chair Wright opened the floor for public comment on any items; there was none.

**10. ADJOURNMENT**

The meeting adjourned at 7:20 p.m.

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**APPROVAL**

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Board of Public Utilities Chair Name

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Board of Public Utilities Chair Signature

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Date Approved by the Board

**ATTACHMENTS:**

1. Utilities Manager Report 11/16/2022
2. November Power Outage Presentation
3. Revised Staff Report: Award of IFB 23-41

**Utility Manager's Report  
November 16, 2022**

1. First is a PowerPoint presentation regarding the November 13<sup>th</sup> outage and its repair status. (To be attached.)
2. The negotiations to improve employee retention and recruitment were completed with the two unions and last night Council approved the budget revision approved by BPU and all the associated resolutions to complete this action. On behalf of staff and myself, I want to thank both the Board and Council in supporting these compensation increases.
3. After BPU approved the DPU strategic plan, DPU-SMT attended two half day strategic planning sessions to review the revised goals and objectives and update our action plans. The major issue before the department are the number of retirement eligible employees and the strain it places on the department. The DPU-SMT team will proposed in next year's budget to have 2 to 3 employees budgeted for the purpose of double filling positions and these proposed positions will float around the department based on need. The current system is a retirement letter is required before a replacement recruitment can commence. Recruiting typically takes two to three months to complete. Next, the retiring employee gets to use 520 hours of sick leave and their accumulated vacation that can extend the employee being on the books for up to five months after they retire. Double filling will allow for a recruitment to occur prior to the employee retiring and then the new employee can receive some training before assuming the retiring employee roles. Last year, the Board supported double filling the Deputy for GWS for six months due to his retirement plans and this is currently in process.
4. Project Management Committee (PMC) meeting regarding the CFPP and this phase of project continues to remain under budget, but the schedule has slipped by a month. In January, the Economic Competitive Test (ECT) and a new budget and plan of finance will be presented to BPU. This step will trigger the off-ramp option or if we plan to continue in the project. I will propose a January 11<sup>th</sup> meeting with BPU and UAMPS.
5. I met with Senator Heinrich staff regarding the benefits of the CFPP. The staff was interested in learning about the project and the need clean dispatchable power. The Senator's office is working on the DOE appropriations budget. The DOE grant for the CFPP is subject to annual appropriations.
6. The UAMPS Resource Project Committee has several projects in the pipeline.  
Geothermal Proposal (The Power Pool has requested 10 MW)  
Gas Generation and Feasibility Study that may include the addition of hydrogen fuel (The Power Pool has requested 10 MW)  
Two Solar plus battery storage proposals (The Power Pool has yet to consider these proposed projects)

7. For the LANL solar site, staff met with LANL staff on the technical aspects of the project, and we have identified a potential vendor to construct the project. While there is acreage for 10 MW, there are a couple of acres that may not be developable due to flood plain restrictions and cultural issues. Next Steps are for LANL to receive these clearances for developable area, a geotechnical report, and some specifications on the point of connection for the project. It was determined that battery storage at this site would not be beneficial. LAC requested a battery siting study that follows the joint IRP. We did learn that LANL is installing an eight MW four-hour battery at another location. proposal is to use a similar lease arrangement as held at the landfill and purchase the power.
8. The San I. Pueblo is still waiting on the result of their study on the solar site. One positive step forward is the tribal government approved the solar site land use. Staff will continue to engage with this potential partner.
9. FERC has retained a settlement judge regarding PNM's 864 filing and LAC is preparing in the discovery phase and a final hearing on November 30<sup>th</sup> in Washington D.C. Mr. Garcia will be attending this hearing.
10. For SJGS, the project is in the decommissioning phase and a letter was issued to San Juan County manager notifying him that the SJGS is closed and a decommission plan will be submitted within 90-days as required by San Juan County Ordinance. Also, the City of Farmington request for a temporary restraining order to suspend any decommissioning activities was denied by the arbitrator. This lawsuit is ongoing and to date three arbitrators have been selected and these arbitrators are reviewing the evidence submitted and have yet to schedule a trial date.
11. The setup and testing of the Tyler 311 are progressing. During testing, staff identified a couple of issues to resolve before this product can go live. Most of the features are working properly.
12. Staff selected a vendor for the electric rate study, and they are working with procurement on the agreement.
13. This month's Technical Working Group TWG meeting covered what the TWG shared vision is and how risks and values may influence this share vision.
14. I attended the N3B quarterly community update. Most of the meeting covered the progress on WIPP Shipments, a stop work order due to safety concerns site wide with N3B, DP Road confirmation sampling work, and the progress they made and one setback with the well drilling for the chromium plume.



15. Attended several meetings on the waterline to the ski hill and 10-million-gallon storage reservoir. Staff is working on a term sheet on how to apply for and participate in potential grants for the project. There are \$2 Million budgeted by the county and the ski area has pledged another \$2Million to be used for grant matches.



# County of Los Alamos

## Staff Report

December 07, 2022

Los Alamos, NM 87544  
www.losalamosnm.us

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**Agenda No.:** 6.B.  
**Index (Council Goals):**  
**Presenters:** James Alarid, Deputy Utilities Manager - Engineering  
**Legislative File:** 16679-22

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### Title

Approval of Amendment to Task Order No. 95, AGR16-044 with Parker Construction, LLC

### Recommended Action

**I move that the Board of Public Utilities Approve Amendment No. 1 to Task Order 95, AGR16-044 with Parker Construction, LLC in the amount of \$16,259.33, plus NMGR in the amount of \$1,168.64, for a total of \$17,427.97.**

### ..Utilities Manager's Recommendation

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

### Body

On October 20, 2021, the Utility Board approved Task Order No. 95, AGR16-044 with Parker Construction, LLC. to trench and install 4" conduits, switch vaults and junction boxes in White Rock. The work took place this past summer and fall on Cheryl, Connie and Aragon Streets in White Rock. The additional cost incurred was \$17,427.97. The additional costs were due to rock excavation and the need to haul the asphalt and concrete waste to Espanola for disposal. Both were unforeseen conditions, as the Eco Station discontinued accepting asphalt and concrete waste since the prior approval. We bring this amendment after the fact to the Utility Board to ratify the additional budget needed to comply with procurement requirements and provide a transparent record of the project costs.

### Alternatives

If the amendment is not approved payment cannot be made to contractor.

### Fiscal and Staff Impact

Funding for this amendment is from approved FY2023 capital funds in the electric distribution fund. The total project cost, including this amendment, is \$113,842.50, which includes gross receipts tax.

### Attachments

- A - Task Oder No. 95 Amendment No. 1
- B - Utility Board Approval October 20, 2021

**AMENDMENT NO. 1 TASK ORDER # 95**

**COUNTY OF LOS ALAMOS UTILITIES DEPARTMENT  
PRICE AGREEMENT AGR16-044  
PARKER CONSTRUCTON, LLC**

**PROJECT TITLE:** Connie and Cheryl Primary Electric Replacement (White Rock, NM)

Trench and installation of 4" conduit, Switch and Junction Boxes : **AMENDMENT NO. 1** to Task Order #95 was to include additional rock excavation, extra pavement removal and replacement, disposal of concrete & asphalt. The disposal of the material required hauling outside of the County to a location 20 miles (one way) outside of Espanola, NM.

The following items are to be amended to Task Order #95.

<b>Project Title:</b>	Connie & Cheryl Primary Replacement <b>(REVISED ITEMS)</b>				
	Rock Excavation, Rubble removal & Landscape replacement				
<b>BID ITEMS</b>	<b>DESCRIPTION</b>	<b>COST/ITEM</b>		<b>Quantity</b>	<b>Total</b>
Bid Item #122	Superintendent	\$70.40	HR	10	\$704.00
Bid Item #123	Laborer	\$49.29	HR	8	\$394.32
Bid Item #127	Transport-Truck	\$134.93	HR	2	\$269.86
Bid Item #126	Dump Truck	\$105.60	HR	10	\$1,056.00
Bid Item #130	Excavator	\$146.67	HR	35	\$5,133.45
Bid Item #130	Excavator with rock breaker	\$146.67	HR	40	\$5,866.80
Bid Item #125	Loader	\$129.07	HR	10	\$1,290.70
Bid Item #126	Dump Truck for Landscape	\$105.60	HR	2	\$211.20
	Disposal Fees	\$15.00	ton	81	\$1,215.00
	Landscape Rock	\$29.50	ton	4	\$118.00
				Total	<b>\$16,259.33</b>

Revised Items:

Total \$16,259.33 not including GRT

Sales Tax (7.1875%): 1,168.64

**Total for all work including revised items:**

**Total: \$17,427.97**

**Acceptance of Conditions and Items of Work**

Department of Public Utilities: \_\_\_\_\_  
Philo Shelton

\_\_\_\_\_  
Date

Parker Construction: \_\_\_\_\_  
Brad Parker

\_\_\_\_\_  
Date

Name: \_\_\_\_\_  
*Print*

# LOS ALAMOS

where discoveries are made

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Details Reports

File #: AGR0788-21 Version: 1

Type: General Services Agreement Status: Consent

File created: 9/9/2021 In control: Board of Public Utilities

On agenda: 10/20/2021 Final action: 10/20/2021

Title: Approval of Task Order No. 95 Under Services Agreement No. AGR16-044 with Parker Construction, LLC for Trench and Installation of Conduit at Connie and Cheryl

Presenters: Stephen Marez

Attachments: [1. A - Task Order No. 95 Under AGR16-044](#), [2. B - Task Order No. 95 Cost Evaluation](#), [3. C - Location Map](#)

Text

## Title

Approval of Task Order No. 95 Under Services Agreement No. AGR16-044 with Parker Construction, LLC for Trench and Installation of Conduit at Connie and Cheryl

## Recommended Action

**I move that the Board of Public Utilities approve Task Order No. 95 Under Services Agreement No. AGR16-044 with Parker Construction, LLC in the amount of \$81,772.41, plus Gross Receipts Tax, and a Contingency in the amount of \$8,177.00 for a total of \$89,949.41 for Trench and Installation of Conduit, Switches and Junction boxes at Aragon Ave, Connie Ave. and Cheryl Ave.**

## Utilities Manager Recommendation

The Utilities Manager and Staff recommend approval of the task order as presented.

## Body

The project will replace existing direct bury cable installed in 1984 with new conduit along Aragon Ave. The feeders supply power to Connie Ave. and Cheryl Ave. . The project will also replace a 2 switches which are on the priority replacement list. This project was defined as necessary through the Utility Asset Management program. Utility crews will install new conductors in coordination with the contractor. If approved, the work will be scheduled to begin in October.

## Alternatives

If not approved, the project will need to be delayed which could affect service to customers.

## Fiscal and Staff Impact

The project will be funded by approved Capital Improvement funds.

## Attachments

A - Task Order No. 95 Under AGR16-044  
B - Task Order No. 95 Cost Evaluation  
C - Location Map









# County of Los Alamos

## Staff Report

December 07, 2022

Los Alamos, NM 87544  
www.losalamosnm.us

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**Agenda No.:** 7.A.

**Index (Council Goals):**

**Presenters:** Heather Garcia, Deputy Utilities Manager - Finance

**Legislative File:** AGR0900-22a

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### Title

Approval of AGR23-13 with Paymentus Corporation in the Amount of \$900,000 plus Applicable Gross Receipts Tax for the Purpose of Credit Card and Electronic Bill Payment Services.

### Recommended Action

**I move that the Board of Public Utilities approve Services Agreement AGR23-13 with Paymentus Corporation in the amount of \$900,000.00 plus applicable gross receipts tax and forward to Council for final approval.**

### ..Utilities Manager's Recommendation

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

### Body

DPU is seeking approval for AGR23-13 with Paymentus Corporation for credit card and electronic bill pay services. The county issued request for proposals (RFP) number 23-13 on June 2, 2022 for electronic payment services. Upon evaluation of the proposals, it was determined that Paymentus provided the most cost-effective model, flexibility, and service for our requirements. The term of this contract will continue seven years, and will not exceed \$900,000, plus applicable gross receipts tax, for the life of the contract.

For the past 8 years, Paymentus Corporation has provided these services to DPU customers successfully. AGR16-4289 expired at the end of December 2021 and AGR22-930, a one-year contract, was put in place to allow staff to solicit for proposals for these services without interrupting this popular service to customers. These services were planned into FY2023 budgets and will not create any significant impacts to budget, and we remain confident the service provides good value for the department and our customers in terms of payment ease and flexibility. AGR23-13 will replace AGR22-930 and electronic payment services will continue to be available to customers.

Additional background on DPU's history with Paymentus Corporation, previously presented to the BPU, is repeated here for clarity and ease of reference: For years, the Utilities Department had a "convenience fee" model for accepting credit card payments for utilities bills. Under this model, customers were charged \$4.95 per transaction with a transaction limit of \$450.00. The department received substantial customer feedback that this model was unacceptable in the modern business world. We also got similar indications from trade shows and from publications to which we subscribe. Finally, to successfully deploy our Smart Customer Mobile application, it was apparent that we needed to better support credit card

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payments. Although that application has since been retired, we did learn that strong support for credit card payments was going to be essential for successful deployment of any type of replacement mobile or “customer self-service” application.

In response to these inputs, Department staff reached out in 2015 to the then current provider, Paymentus Corporation, and to several other potential providers, to look at their fee models and structure. The Procurement Officer determined at the time that such services were exempt from the competition requirements of the Los Alamos Procurement Code, so no formal request for proposals was issued, but staff did conduct extensive “due diligence” to ensure we were obtaining best value for the Department and our customers. After careful consideration, it was determined that Paymentus provides the most cost-effective model, the most flexibility, and the best service for our needs.

Having not had experience with the “absorbed fee” model, staff had little information on which to base an estimated total contract cost. We also wanted to limit our exposure until we had history to gauge success of the absorbed fee model. Thus, we initially funded the contract for only \$49,000. In 2017, funding was increased to \$99,000, which was projected as and which was adequate for the remainder of the initial contract term, based on historical usage and growth.

With eight years now under the program, we have received very favorable customer feedback. We continue seeing increased utilization as more customers become familiar with and utilize its functionality and convenience.

As previously stated, AGR23-13 is a seven-year term contract, expiring November of 2029, for \$900,000 with Paymentus Corporation for credit card and electronic bill pay services. The anticipated yearly costs for this service is approximately \$128,500 per year. This AGR will provide the popular and customer focused payment option to DPU customers from a qualified offeror and was selected in accordance with the Los Alamos County Procurement Code.

#### **Alternatives**

If the Board elects not to approve this agreement, DPU will reissue solicitation of a replacement for electronic payment services without electronic bill pay options for customers in place.

#### **Fiscal and Staff Impact**

The not to exceed amount of \$900,000 is the total for all seven years of the contract. This roughly equates to approximately \$128,500 per fiscal year. These services are budgeted in FY23 and can be covered with existing funds. There is no staff impact as this is for continuation of an existing service.

#### **Attachments**

A - AGR23-13 Paymentus Corporation



## INCORPORATED COUNTY OF LOS ALAMOS SERVICES AGREEMENT

This **SERVICES AGREEMENT** ("Agreement") is entered into by and between the **Incorporated County of Los Alamos**, an incorporated county of the State of New Mexico ("County"), and **Paymentus Corporation**, a Delaware corporation with a principal place of business located at 11605 N. Community House Road, Suite 300, Charlotte, North Carolina 20277 ("Contractor" or "Paymentus"), (collectively "Parties"), to be effective for all purposes December 14, 2022 ("Effective Date").

**WHEREAS**, the County Purchasing Officer 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. 23-13 ("RFP") on June 2, 2022, requesting proposals for Electronic Payment Services, as described in the RFP; and

**WHEREAS**, Contractor timely responded to the RFP by submitting a response dated June 30, 2022 ("Contractor's Response"); and

**WHEREAS**, based on the evaluation factors set out in the RFP, Contractor was the successful Offeror for the services listed in the RFP; and

**WHEREAS**, the Board of Public Utilities approved this Agreement at a public meeting held on December 7, 2022; and

**WHEREAS**, the County Council approved this Agreement at a public meeting held on December 13 2022; and

**WHEREAS**, Contractor shall provide the Services, as described below, to County.

**NOW, THEREFORE**, for and in consideration of the premises and the covenants contained herein, County and Contractor agree as follows:

### SECTION A. SERVICES:

1. **Generally.** Contractor shall provide Electronic Payment Services ("Services") to County to allow County Customers ("Customers") to pay utility bills, donate to the Utilities Assistance Program, or pay for other County-related goods or services, using a credit card and other electronic payment methods, all as more particularly described in Exhibit C to this Services Agreement and defined therein as the "Services"). Services shall be available to Customers through a variety of methods, as described herein, or as may be offered in the future. Attached hereto as Exhibit "C" is a Master Service Agreement ("MSA"). If there is a conflict between the provisions of this Agreement and the MSA, this Agreement controls. County shall grant Contractor exclusive rights for Electronic Payment Services, throughout the term of this Agreement, for those payment types identified in Schedule A to Exhibit C.



## **2. Software License and Functionality.**

- a. Subject to the terms and conditions of this Agreement, Contractor hereby grants to County a limited, revocable, non-exclusive and non-transferrable license to: (i) use Contractor's hosted electronic payment Platform-As-A-Service called the Instant Payment Network (or "IPN") solely for County's governmental purposes for the Term of this Agreement in accordance with the Documentation in connection with such use of the IPN.
- b. Contractor provides a limited, revocable, non-exclusive and non-transferable license to the County for an unlimited number of Customers and County users for the Term of this Agreement. Contractor warrants that the IPN will perform the functionality described in Exhibit "C" and that Contractor shall comply with all applicable County Technology Standards as described in Exhibit "B."

## **3. Payment Methods, Channels, and Types.** Contractor's Services shall include, but shall not be limited to, provision of the following electronic payment methods, channels, and types, as may be requested and approved by County, and further described on Schedule A to Exhibit C:

- a. Payment Methods.
  - i. Credit cards, including, but not limited to, Master Card, Visa, Discover, and American Express;
  - ii. Debit Cards, eChecks, and bank account transfers; and
  - iii. Other payment methods offered by Contractor to Customers upon County request and approval, which shall include, but not be limited to, PayPal, PayPal Credit, Amazon Pay, Venmo, Apple Pay, Google Pay, and other types of credit card readers.
- b. Payment Channels. The following are methods of payment options that Contractor shall allow customer payments through, which shall include, but are not limited to the following:
  - i. Web,
  - ii. Mobile,
  - iii. Mobile Wallet,
  - iv. Text,
  - v. Email,
  - vi. Chat,
  - vii. Interactive Voice Response ("IVR"),
  - viii. Call Center,
  - ix. Point of Service ("POS"),
  - x. Kiosk, and
  - xi. Walk-in at Walmart and other retail locations
- c. Payment Types.
  - i. One-Time (immediate),
  - ii. One-time (future-dated),
  - iii. Recurring/AutoPay,
  - iv. Payment Plans,
  - v. Donations,
  - vi. Prepaid,
  - vii. Call Center, and

- viii. Aggregated electronic remittance from other sources, including, but not limited to banks.
- 4. Maximum Payments Accepted in a Single Transaction.** Contractor shall accept a maximum payment in a single transaction as specified in Schedule A, to Exhibit "C," unless otherwise agreed to by both Parties through a written Amendment to Exhibit "C."
- 5. Encrypted Swipe POS Devices.** Contractor shall, upon County request, provide encrypted swipe POS devices at the rates specified in Schedule B Exhibit "C."
- 6. Provision of an Online Customer Payment Portal.** Contractor shall provide an online Customer Payment Portal tool, available to any Customer twenty-four (24) hours per day, three hundred sixty-five (365) days per year, where Customers with direct online access can perform self-service activities, including, but not limited to, the following:
- a. View current and past bill summaries and full bills;
  - b. View previous payments;
  - c. Make single payments;
  - d. Pay multiple bills in a single flow;
  - e. Setup and manage auto payments and future payments;
  - f. Sign up for AutoPay;
  - g. Establish a payment plan;
  - h. Edit and cancel schedule payments;
  - i. Manage personal profile preferences and information;
  - j. Link multiple accounts;
  - k. Manage accounts and paper suppression;
  - l. Establish and manage an online payment eWallet; and
  - m. Opt-in and manage notifications and communications.
- 7. Reports and Payments to County.** Contractor shall:
- a. Provide, at a minimum, a daily electronic data file, available through its website portal, hereafter the "Agent Dashboard," for County to generate and download online, with the specifications provided by the County Project Manager or designee, which shall include each individual payment, utility account, and customer ID to which the payments apply, which County will be able to upload into its Enterprise Resource Planning (ERP) software, Tyler Technologies Munis. The Contractor shall provide a data file compatible with mutually agreed-upon format specifications with the County's Munis system. Upon notification of changes needed in Munis data file format specifications, and mutual agreement between County Project Manager and Contractor on the requested changes, the Contractor shall adjust or modify the daily electronic file as needed.
  - b. Instruct the County's designated Payment Processor (also referred to as "Paymentus Authorized Processor") to deposit one hundred percent (100%) of the amount of the payments received from Customers into the County's bank account(s), as specified by County Project Manager or designee, within at least two (2) business days after receipt of payments.
  - c. Provide an "Agent Dashboard" through which County personnel can be given access to review Customer payment information and generate and download standard and ad hoc reports. The number of County personnel who can be given access to the Agent Dashboard shall not be limited by Contractor, and all access and permissions shall be assigned based on legitimate business need, as determined by County Project Manager or designee, using role- and permission-

based controls. The Agent Dashboard shall, at a minimum, give authorized County users the ability to perform the following tasks:

- i. View payments in real time;
- ii. Transact customer payments;
- iii. Cancel payments in real time;
- iv. Suspend and block payment methods;
- v. Manage digital disbursements;
- vi. View billing statements;
- vii. Suppress paper for customers;
- viii. View and access reports;
- ix. Download reports to Excel or CSV;
- x. Create and manage a variety of customer messages;
- xi. Open and track the status of a case;
- xii. View and track payment metrics;
- xiii. Control access permissions;
- xiv. Manage files; and
- xv. Analyze data.

#### **8. Compliance with Laws and Industry Standards.**

- a. Contractor shall comply with all applicable local, state, and federal laws regulating Electronic Payment Services.
- b. Contractor shall, throughout the Term of this Agreement, provide a secure system for receiving, storing, processing or otherwise working with information provided by County and its Customers utilizing Contractor's Services, and shall agree to fully comply with all applicable local, state, and federal law regulating electronic payment data security standards and requirements, which include, but are not limited to, the National Automated Clearing House Association ("NACHA"), Payment Card Industry Data Security Standards ("PCI DSS"), Health Insurance Portability and Accountability Act of 1996 ("HIPPA"), the Sarbanes-Oxley Act ("SOX"), and the Gramm-Leach-Bliley Act ("GLBA").
- c. Contractor shall, upon execution of this Agreement, and whenever requested by County throughout the Term of this Agreement, provide to County proof of NACHA and PCI DSS compliance, which may include, but is not limited to, the most current version of the PCI DSS Attestation of Compliance for Onsite Assessments for Service Providers and a Service Organization Control ("SOC") Type II report which will evidence that Contractor's system is secure, and provides proper encryption of account numbers. Contractor shall, upon County request, provide within ten (10) business days, any requested information necessary for the County to certify that the Contractor's system is secure, meets current PCI DSS and NACHA standards, provides proper encryption of account numbers, and that County Customer data is protected.
- d. If Contractor's system is determined by County to be unsecure or out of compliance with current applicable security standards based on the above-referenced reports, and upon acknowledgement of non-compliance by Contractor, Contractor shall provide to County within ten (10) business days of written notification by County, a written plan to timely address any findings of non-compliance with security standards. Non-compliance with applicable PCI DSS, NACHA shall be deemed a material breach as defined in Exhibit C.

## **9. Data Ownership and Records.**

- a. **Data Ownership.** All data provided to Contractor by County is and remains the property of County. Except as required by law, regulators, auditors or as required to comply with its own document retention policies, Contractor shall not lease, sell, or otherwise provide to any third-party County Customer records, County data, or any documents or materials developed by Contractor in the performance of Services of this Agreement without written authorization from County. At the end of the Term of this Agreement or termination, Contractor shall return all records, data, and amounts then in its possession as related to the Services provided in this Agreement, unless such data is required by Contractor for federal or state banking laws and regulations or to be retained in accordance with Contractor's own document retention policies. The Parties shall retain such data in conformance with the longest retention requirements of either Party.
- b. **Records.**
  - i. Contractor shall maintain complete and accurate records of Electronic Payment transactions in accordance with accepted industry accounting practices and this Agreement, and shall maintain records in a secure location, whether electronically or physical, to prevent disclosure or destruction.
  - ii. Contractor shall maintain all records in accordance with the most restrictive requirements of any County, state and federal requirements, where applicable. Contractor shall retain all such records and statements pertaining to Electronic Payment Services for County for a period of no less than three (3) years from the close of each year's operation. Upon termination of the Agreement, Contractor shall provide all Contractor's retained County data to County in MS Excel or CSV format within (30) business days. Contractor and County will mutually agree upon the specific details to be provided within the file. Contractor shall then ensure destruction or secure archiving and storage of any remaining County data in its system.
  - iii. Contractor shall cooperate with County representatives and County representatives shall be granted access to audit books, documents, papers and records pertaining to the Services provided that (i) County provides Contractor with thirty (30) days advance written notice, (ii) the audit does not occur more than one time annually, (iii) County conducts the audit in a manner that is non-disruptive to Contractor's business during reasonable business hours and (iv) in compliance with Contractor's security policies and procedures.
  - iv. Contractor understands that County is a public body and subject to State of New Mexico public records requirements. Contractor shall timely provide to County all records it may have in its possession for responding to public records request. If a request for information is made to County under any federal, state or other governmental freedom of information act or similar law, rule or regulation seeking disclosure of any of the confidential information of Contractor, this Agreement or other information provided to County before and after the Effective Date in connection with or pursuant to this Agreement, County shall (i) promptly provide Contractor written notice of (email shall suffice) such request (along with a copy of the request) so that Contractor may seek, at Contractor's sole expense, a protective order or other appropriate remedy to protect the requested

information to the extent legally permitted and (ii) provide reasonable cooperation (at Contractors' request and sole expense, including but not limited to County's legal fees reasonably incurred to protect the requested information) to resist or limit any disclosure pursuant to this paragraph.

**10. Customer Service and Technical Support.**

- a. Contractor shall provide customer service and technical support to County staff twenty-four (24) hours a day, three hundred sixty-five (365) days per year via phone, email or online case submission through the Contractor's Agent Dashboard. Contractor shall review each request in accordance with the Service Levels set forth on Exhibit D attached hereto and incorporated herein by reference, and shall assign each request a case number for tracking purposes.
- b. Contractor shall provide customer service and technical support to Customers via a dedicated toll-free number and email. Current scheduled hours are 7:00 a.m. – 11:00 p.m. Central Time, Monday through Friday, and 7:00 a.m. – 4:00 p.m. Central Time, Saturday and Sunday. Contractor shall maintain call centers and operations within the continental United States. For hosted or cloud-based services offered by Contractor, data centers of cloud service providers shall be located within the United States, as required by Exhibit "B," County Technology Standards, as may be amended, attached hereto as Exhibit "B."

**11. Client Adoption Success Team ("CAST").** Contractor shall provide, upon County request and at no additional charge, assistance with incentive programs, market research and communications, best practices for driving user adoption, and providing support in the form of marketing materials, promotional campaigns, and incentive ideas to reach Customers and improve engagements. County reserves the right to approve all marketing materials developed by Contractor in the performance of this Agreement, to approve the inclusion of any third-party information in County's marketing materials, and use of County's marketing materials by any third-parties.

**12. Future or Optional Services or Functionality.**

- a. Contractor, as part of the Service, may provide, throughout the Term of this Agreement, future or optional tools, features, services, methods of electronic payments, and updates, upgrades, or enhancements to the Paymentus platform not specifically named herein, at no additional cost to County or at the applicable rates specified in Schedule A to Exhibit C.
- b. Contractor shall deploy new releases with release notes identifying the changes included for release. New features that are created and applicable to the County implementation shall also be available to County. Some features may be optional and require additional implementation, to be mutually agreed upon between the Parties. The release of new features shall be available to County in a client test environment
- c. County-requested updates, upgrades, or enhancements to the Paymentus platform shall be submitted to Contractor, throughout the Term of this Agreement, through written request, which shall be reviewed and assessed by Contractor, and upon mutual written agreement of both Parties of a Statement of Work, shall be implemented in accordance with the agreed-upon terms and schedule specified in the Statement of Work.
- d. County-requested and mutually agreed-upon future or optional services or functionality that require additional Contractor implementation or customization services, throughout the Term of this Agreement, may be provided to County at a

cost to County as set forth in the resulting Statement of Work, implementation or customization service fees, to be approved by County prior to providing Services, in an amount not to exceed fees specified in Schedule B to Exhibit C.

**13. County Responsibilities.**

- a. County shall follow all necessary rules and regulations of different card associations, including the chargeback rules.
- b. County shall make Contractor's Services available to its Customers through different means of Customer communication including: (1) through bills, invoices and other notices; (2) by providing IVR and Web payment details on County's website including a "Pay Now" or similar link on a prominent place on County's general website; (3) by adding an option for this payment through County's general IVR/Phone system; and (4) other channels deemed necessary by County from time to time.

**SECTION B. TERM:** The Term of this Agreement shall commence December 14, 2022, and shall continue through December 13, 2029 unless sooner terminated, as provided herein.

**SECTION C. COMPENSATION:**

1. **Amount of Compensation.** County shall pay compensation for performance of the Services in an amount not to exceed NINE HUNDRED THOUSAND DOLLARS (\$900,000.00) ("Budget Amount") which amount does not include applicable New Mexico gross receipts taxes (NMGRT). Compensation shall be paid in accordance with the rate schedule set out in Schedule A, B and C to Exhibit "C," attached hereto and made a part hereof for all purposes. The Parties understand that unforeseen increased use by County and Customers of Contractor's Services, as specified herein, may result in the need to amend the not-to-exceed compensation amount specified herein. The Parties agree that they will work in good faith to amend the not-to-exceed compensation amount, if applicable or as may be authorized, to accommodate the additional use of Services. Such changes that increase the not-to-exceed compensation amounts provided herein, must be approved and authorized by an Amendment to this Agreement, which must be approved by the Board of Public Utilities and County Council.
2. **Monthly Invoices.** Contractor shall submit itemized monthly invoices to County's Project Manager showing amount of compensation due, amount of any NMGRT, and total amount payable. Payment of undisputed amounts shall be due and payable thirty (30) days after County's receipt of the invoice.

**SECTION D. TAXES:** Contractor shall be solely responsible for timely and correctly billing, collecting and remitting all NMGRT levied on the amounts payable under this Agreement.

**SECTION E. STATUS OF CONTRACTOR, STAFF, AND PERSONNEL:** This Agreement calls for the performance of services by Contractor as an independent contractor. Contractor is not an agent or employee of County and shall not be considered an employee of County for any purpose. Contractor, its agents, or employees shall make no representation that they are County employees, nor shall they create the appearance of being employees by using a job or position title on a name plate, business cards, or in any other manner, bearing County's name or logo. Neither Contractor nor any employee of Contractor shall be entitled to any benefits or compensation other than the compensation specified herein. Contractor shall have no authority to bind County to any agreement, contract, duty, or obligation. Contractor shall make no representations that are intended to, or create the appearance of, binding County to any



agreement, contract, duty, or obligation. Contractor shall have full power to continue any outside employment or business, to employ and discharge its employees or associates as it deems appropriate without interference from County; provided, however, that Contractor shall at all times during the Term of this Agreement maintain the ability to perform the obligations in a professional, timely, and reliable manner.

**SECTION F. STANDARD OF PERFORMANCE:** Contractor agrees and represents that it has and shall maintain the personnel, experience, and knowledge necessary to qualify it for the particular duties to be performed under this Agreement. Contractor shall perform the Services described herein in accordance with a standard that meets the industry standard of care for performance of the Services.

**SECTION G. DELIVERABLES AND USE OF DOCUMENTS:** All deliverables required under this Agreement, and provided to County during standard course of business including material, reports, policies, files, and any other products and processes, whether in written or electronic form, shall inure to the benefit of County; Contractor shall not use, sell, disclose, or obtain any other compensation for such materials.

**SECTION H. EMPLOYEES AND SUB-CONTRACTORS:** Contractor shall be solely responsible for payment of wages, salary, or benefits to any and all employees or contractors retained by Contractor in the performance of the Services. Contractor agrees to indemnify, defend, and hold harmless County for any and all claims that may arise from Contractor's relationship to its employees and subcontractors.

**SECTION I. INSURANCE:** Contractor shall obtain and maintain insurance of the types and in the amounts set out below throughout the Term of this Agreement. Compliance with the terms and conditions of this Section is a condition precedent to County's obligation to pay compensation for the Services, and Contractor shall not provide any Services under this Agreement unless and until Contractor has met the requirements of this Section. County requires Certificates of Insurance, or other evidence acceptable to County, stating that Contractor has met its obligation to obtain and maintain insurance and to assure that subcontractors maintain like insurance. A Certificate of Insurance evidencing the required coverages will be issued to County promptly following execution of this Agreement. Should any of the policies described below be cancelled before the expiration date thereof, notice shall be delivered in accordance with the policy provisions. General Liability Insurance and Automobile Liability Insurance shall name County as an additional insured.

1. **General Liability Insurance:** ONE MILLION DOLLARS (\$1,000,000.00) per occurrence; ONE MILLION DOLLARS (\$1,000,000.00) aggregate.
2. **Workers' Compensation:** In an amount as may be required by law. County may immediately terminate this Agreement if Contractor fails to comply with the Worker's Compensation Act and applicable rules when required to do so.
3. **Automobile Liability Insurance for Contractor and its Employees:** ONE MILLION DOLLARS (\$1,000,000.00) combined single limit per occurrence; ONE MILLION DOLLARS (\$1,000,000.00) aggregate on any owned, and/or non-owned motor vehicles used in performing Services under this Agreement.
4. **Professional Liability Insurance:** With a limit of not less than ONE MILLION DOLLARS (\$1,000,000.00) each claim, with a ONE MILLION DOLLAR (\$1,000,000.00) annual aggregate, and sufficient to provide coverage for a three (3) year period from completion of

this contract, against any and all claims which may arise from the contractor's negligent performance of work described herein.

- 5. Cyber Insurance:** In addition to insurance required under the Agreement, Contractor shall, at its sole cost and expense, procure and maintain through the Term of this Agreement and for two (2) years following the termination or expiration of the Agreement, cyber/network privacy insurance with limits of THREE MILLION DOLLARS (\$3,000,000) per claim/in aggregate. Such policy shall provide coverage for disclosures and/or breaches of County Data arising out of or relating to Contractor's Services. Such policy shall also include coverage for the costs associated with restoring lost or damaged County Data, sending breach notifications to affected individuals, public relations expenses, fines, and penalties. Such policy shall not contain exclusions for the acts or omissions of either Contractor, County, or their respective employees, agents, subcontractors, or volunteers, whether intentional or unintentional, resulting in or relating to any use of County Data not expressly permitted by this Agreement. Contractor must notify County at least thirty (30) days prior to the cancellation or modification of such policy.

**SECTION J. RECORDS:** Contractor shall maintain, throughout the Term of this Agreement and for a period of six (6) years thereafter, records that indicate the date, time, and nature of the services rendered. Contractor shall make available, for inspection by County, all records, books of account, memoranda, and other documents pertaining to County in accordance with Section A.9(b) above.

**SECTION K. DUTY TO ABIDE:** Contractor shall abide by all applicable federal, state, and local laws, regulations and shall perform the Services in accordance with all applicable laws, and regulations during the Term of this Agreement.

**SECTION L. NON-DISCRIMINATION:** During the Term of this Agreement, Contractor shall not discriminate against any employee or applicant for an employment position to be used in the performance of the obligations of Contractor under this Agreement, with regard to race, color, religion, sex, age, ethnicity, national origin, sexual orientation or gender identity, disability, or veteran status.

**SECTION M. CHOICE OF LAW:** The interpretation and enforcement of this Agreement shall be governed by and construed in accordance with the laws of the State of New Mexico.

**SECTION N: VENUE, FORUM NON-CONVENIENS, EXCLUSIVE STATE JURISDICTION:** County and Contractor knowingly, voluntarily, intentionally, and irrevocably agree that any and all legal proceedings related to this Agreement, or to any rights or any relationship between the parties arising therefrom, shall be solely and exclusively initiated, filed, tried, and maintained in Federal Court located in the First Judicial Circuit of the State of New Mexico. County and Contractor each expressly and irrevocably waive any right otherwise provided by any applicable law to remove the matter to any other state or federal venue, consents to the jurisdiction of the First Judicial Circuit of the State of New Mexico in any such legal proceeding, waives any objection it may have to the laying of the jurisdiction of any such legal proceeding. County and Contractor also agree that this term is a material inducement for each to enter this Agreement, and that both County and Contractor warrant and represent that each have had the opportunity to review this term with legal counsel.



## **SECTION O. INDEMNITY:**

### **Contractor Indemnification**

Contractor agrees to defend, hold harmless and indemnify County and its directors, officers or governing officials, and employees (collectively, the "County Indemnitees") from and against all liabilities, demands, losses, damages, costs or expenses (including reasonable attorney's fees and costs), incurred by any County Indemnatee arising from a claim or demand brought by a third party to the extent the claim or demand alleges that the Services provided under this Agreement infringe the intellectual property rights of the third-party.

### **County Indemnification**

To the fullest extent permitted by law County agrees to defend, hold harmless and indemnify Contractor and its directors, officers, and employees (collectively, the "Contractor Indemnitees") from and against all liabilities, demands, losses, damages, costs or expenses (including reasonable attorney's fees and costs), incurred by any Contractor Indemnatee arising from a claim or demand brought by a third party to the extent the claim or demand relates to the underlying relationship or obligations of County and its Users. However, County shall not be responsible for any damages or claims, which may be initiated by third parties, is based on problems or errors with the Services provided by Contractor.

**SECTION Q. NON-ASSIGNMENT:** Contractor shall not assign this Agreement or any privileges or obligations herein and shall not novate this Agreement to another without the prior written consent of the County Utilities Manager.

**SECTION R. LICENSES:** Contractor shall maintain all required licenses including, without limitation, all necessary professional and business licenses, throughout the Term of this Agreement. Contractor shall require and shall assure that all of Contractor's employees and subcontractors maintain all required licenses including, without limitation, all necessary professional and business licenses.

**SECTION S. PROHIBITED INTERESTS:** Contractor agrees that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. Contractor further agrees that it shall 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.

## **SECTION T. TERMINATION:**

1. **Generally.** The County may terminate this Agreement with cause as defined by material breach in Exhibit C upon sixty (60) days prior written notice to Contractor. Upon such termination, Contractor shall be paid for Services actually completed to the satisfaction of County at the rate set out in Section C. Contractor shall render a final report of the Services performed to the date of termination and shall turn over to County originals of all materials prepared pursuant to this Agreement.
2. **Funding.** This Agreement shall terminate without further action by County on the first day of any County fiscal year for which funds to pay compensation hereunder are not appropriated by County Council. County shall make reasonable efforts to give Contractor at least ninety (90) days advance notice that funds have not been and are not expected to be appropriated for that purpose.

**SECTION U. NOTICE:** Any notices required under this Agreement shall be made in writing, and sent via National Courier Service or by Registered Mail, Return Receipt Requested, and shall be deemed given upon receipt:

County:

Project Manager, Deputy Utilities Manager  
for Finance and Administration  
Incorporated County of Los Alamos  
1000 Central Avenue, Suite 130  
Los Alamos, New Mexico 87544

With a copy to:

County Attorney's Office  
1000 Central Avenue, Suite 340  
Los Alamos, New Mexico 87544

Contractor:

Attention: Chief Executive Officer  
Paymentus Corporation  
11605 N. Community House Road, Suite 300  
Charlotte, North Carolina 28277

With a copy to the same address, Attention: Legal Department

**SECTION V. INVALIDITY OF PRIOR AGREEMENTS:** This Agreement supersedes all prior contracts or agreements, either oral or written, that may exist between the parties with reference to the services described herein and expresses the entire agreement and understanding between the parties with reference to said services. It cannot be modified or changed by any oral promise made by any person, officer, or employee, nor shall any written modification of it be binding on County until approved in writing by both authorized representatives of County and Contractor. In the event of any conflict between the terms, conditions, and provisions of this Agreement, and the terms, conditions and provisions of any exhibits or attachments, the terms, conditions and provisions of this Agreement shall control and take precedence, but the terms of Exhibit C shall be considered as if they were fully set forth herein.

**SECTION W. NO IMPLIED WAIVERS:** The failure of County to enforce any provision of this Agreement is not a waiver by County of the provisions, or of the right thereafter, to enforce any provision(s).

**SECTION X. SEVERABILITY:** If any provision of this Agreement is held to be unenforceable for any reason: (i) such provision shall be reformed only to the extent necessary to make the intent of the language and purpose of the Agreement enforceable; and (ii) all other provisions of this Agreement shall remain in effect so long as the substantive purpose of the Agreement is possible.

**SECTION Y. CAMPAIGN CONTRIBUTION DISCLOSURE FORM:** A Campaign Contribution Disclosure Form was submitted as part of the Contractor's Response and is incorporated herein by reference for all purposes.

**SECTION Z. LEGAL RECOGNITION OF ELECTRONIC SIGNATURES:** Pursuant to NMSA 1978 § 14-16-7, this Agreement may be signed by electronic signature.

**SECTION AA. DUPLICATE ORIGINAL DOCUMENTS:** This document may be executed in two (2) counterparts, each of which shall be deemed an original.

**SECTION AB. CONFIDENTIAL INFORMATION:** Any confidential information of one party that is provided to the other party during the Term of this Agreement shall be kept confidential and shall not be made available to any individual or organization in accordance with the Confidential Information Disclosure Statement in Exhibit "A." The Confidential Information Disclosure Statement shall be completed by Contractor as a condition precedent and submitted as part of this Agreement. Its terms shall govern as if fully set forth herein.

**SECTION AC. NEGOTIATED TERMS:** This Agreement reflects negotiated terms between the parties, and each party has participated in the preparation of this Agreement with the opportunity to be represented by counsel, such that neither party shall be considered to be the drafter of this Agreement or any of its provisions for the purpose of any statute, case law, or rule of interpretation or construction that would or might cause any provision to be construed against the drafter of this Agreement.

**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.

**ATTEST**

**INCORPORATED COUNTY OF LOS ALAMOS**

\_\_\_\_\_  
**NAOMI D. MAESTAS**  
**COUNTY CLERK**

BY: \_\_\_\_\_  
**PHILO S. SHELTON III, P.E.** **DATE**  
**UTILITIES MANAGER**

**Approved as to form:**

\_\_\_\_\_  
**J. ALVIN LEAPHART**  
**COUNTY ATTORNEY**

**PAYMENTUS CORPORATION, A DELAWARE CORPORATION**

BY: \_\_\_\_\_  
**JERRY PORTOCALIS** **DATE**  
**CHIEF COMMERCIAL OFFICER**

**Exhibit “A”**  
**Confidential Information Disclosure Statement**  
**AGR23-13**

The Incorporated County of Los Alamos is a governmental entity subject to certain disclosure laws including, but not limited to, the New Mexico Inspection of Public Records Act, NMSA 1978, §§ 14-2-1, et seq. Nothing in this Agreement is intended to diminish or expand the application of any applicable disclosure laws to any proprietary or confidential information.

This Confidential Information Disclosure Statement (“Statement”) defines obligations and waivers related to Confidential Information disclosed pursuant to the above referenced Agreement between County and Contractor. County and Contractor agree to the following:

1. Statement Coordinator – Each party designates the following person as its Statement Coordinator for coordinating the disclosure or receipt of Confidential Information:

**Contractor:** John Tyson  
Legal and Compliance  
11605 N. Community House Road  
Suite 300 Charlotte, NC 28277  
Email: [jtyson@paymentus.com](mailto:jtyson@paymentus.com)

**County:** Deputy Utility Manager for Finance and Administration  
Department of Public Utilities  
1000 Central Avenue, Suite 130  
Los Alamos, New Mexico 87544

2. Definitions:

- a) **Affiliates - Confidential Information** - any form of information, in any format, disclosed by the Discloser to the Recipient relating to: (i) the technology, products and services of the Disclosing Party or its Affiliates, including without limitation, technical data, trade secrets, know-how, research, ideas or concepts, software, inventions, patent applications, techniques, processes, developments, algorithms, formulas, designs, schematics, drawings, engineering and hardware configuration information and (ii) information relating to the operations and business or financial plans and strategies of Disclosing Party or its Affiliates, including but not limited to customers, customer lists, market, financial statements and projections, product pricing and marketing, financial or other strategic business plans or information.
- b) **Discloser** - the party disclosing Confidential Information.
- c) **Exception** – An exception is satisfied if the Confidential Information disclosed: (i) was in Recipient’s possession prior to receipt from Discloser, (ii) is publicly known or readily ascertainable by legal means and through no fault of the Recipient, (iii) is lawfully received by Recipient from a third party without a duty of confidentiality or from anyone who to the knowledge of the Receiving Party after exercising due diligence owed an obligation of confidentiality with regard to the information, (iv) is disclosed by Discloser to a third party without a duty of confidentiality on the third party, (v) is independently developed by Recipient without any use of or reference to the Confidential Information of the Disclosing Party, or (vi) is disclosed by Recipient with Discloser’s prior written approval.
- d) **Recipient** – the party receiving Confidential Information.

Obligations – All Confidential Information received pursuant to this Agreement: (i) will be used for in connection with the Services described in the Agreement (“Authorized Purposes”) and not for any other purpose; (ii) will be held in confidence using at least the same precautions that the

Recipient takes to protect its own Confidential Information, but no less than reasonable care; (iii) will be disclosed only to the Recipient's Representatives or third parties who have a need to know in connection with the Authorized Purposes; and (iv) will be copied, including electronic copies, only to the extent that is reasonably necessary for the Authorized Purposes, with any proprietary or confidential notices that appear on the original retained. The Recipient agrees to notify the Disclosing Party promptly in writing of any disclosure, misuse or misappropriation of Confidential Information of the Disclosing Party that may come to the Recipient's attention. **"Representatives"** means Affiliates, directors, officers, employees, shareholders, agents, subcontractors, service providers or advisors of the Receiving Party who are informed of the confidential nature of the Confidential Information and are legally bound and directed to treat the Confidential Information confidentially. The Receiving Party is responsible for any improper disclosure or use by its Representatives of the Disclosing Party's Confidential Information. Recipient shall protect and ensure its participating subcontractors, agents, or associates shall protect all Confidential Information by using the same degree of care, but no less than a reasonable degree of care, to prevent the unauthorized use, dissemination, or publication of the Confidential Information as Recipient uses to protect its own information of a like nature. If any person or entity requests or demands, by subpoena or otherwise, all or any portion of the Confidential Information provided by one party to another, the party receiving such request shall immediately notify the Discloser of such request or demand. The party receiving the request or demand shall independently determine whether the information sought is subject to disclosure under applicable law, including any federal, state or other governmental freedom of information act or similar law, rule or regulation, including but not limited to the New Mexico Inspection of Public Records Act seeking disclosure of any of the Confidential Information, in connection with or pursuant to this Agreement, Recipient shall (i) promptly provide Disclosing Party written notice of (email shall suffice) such request (along with a copy of the request) so that Disclosing Party may seek, at Disclosing Party's sole expense, a protective order or other appropriate remedy to protect the requested information to the extent legally permitted and (ii) provide reasonable cooperation at Disclosing Party's request and sole expense, including but not limited to Recipient's legal fees reasonably incurred to protect the requested information) to resist or limit any disclosure pursuant to this paragraph. Moreover, if the party receiving the request or demand determines that the information is subject to disclosure, it shall notify the Discloser of its intent to permit the disclosure with sufficient time to permit the Discloser to invoke the jurisdiction of an appropriate court or administrative body to raise any legitimate objections or defenses it may have to the disclosure. In the absence of an appropriate order prohibiting the disclosure, the party receiving the request or demand shall permit and proceed with the disclosure without incurring any duty, obligation or liability to the Discloser. If a request for information is made to County under any federal, state or other governmental freedom of information act or similar law, rule or regulation seeking disclosure of any of the confidential information of Contractor, this Agreement or other information provided to County before and after the Effective Date in connection with or pursuant to this Agreement, County shall (i) promptly provide Contractor with written notice of (email shall suffice) such request (along with a copy of the request) so that Contractor may seek, at Contractor's sole expense, a protective order or other appropriate remedy to protect the requested information to the extent legally permitted and (ii) provide reasonable cooperation (at Contractor's request and sole expense, including but not limited to County's legal fees reasonably incurred to protect the requested information) to resist or limit any disclosure pursuant to this paragraph.

**Exhibit “B”**  
**Los Alamos County Technology Standards**  
**Requirements On-Premise, Hybrid or Cloud/Hosted**  
**Solution Solicitations**  
**AGR23-13**

The following Los Alamos County Technology Standards are required and shall be supported by the vendor, contractor, reseller hence forth called Operator, for any County solicitation requiring technology or integration to the County network and incorporated into any resultant agreement. Standards are listed with the expectation that the Operator will provide software updates to allow Los Alamos County to stay on supported versions of hardware, underlying software and protocols as outlined below.

**Respondents must provide documentation that they meet the requirements in respect to the solution that they are responding with.** On premise respondents do not need to comply with hosted requirements. Hosted solution respondents do not need to comply with on-premise requirements. If the solution is a hybrid of both categories of solution, then both on-premise and hosted requirements apply as applicable to the response.

Server Operating system (OS) (On-Premises)	Microsoft (MS) Windows Server 2019, 64 bit or current (Standard and Datacenter). Contractor software must be maintained to run on a supported platform service level as defined by Microsoft at the latest stable patch level. Departments will be responsible for licensing costs and must request cost estimates from Information Management (IM) Division.	<b>Not Applicable</b>
Server Hardware (On-Premise)	<b>Preferred:</b> Use of County VMware server platform. Environment design must be submitted and reviewed by IM Division for acceptance. Proposals shall include required hardware and licensing of VMware, operating system, and proposed application-based requirements. Application with a proven Virtual installation template is preferred.  Physical Server minimum hardware specifications consist of: Multi Socket/Multi Core processor Intel or AMD based server (standalone or blade server as determined by Los Alamos County IM Division with a minimum 64 GB RAM and RAID capability. Contractor software must be maintained to run on a supported platform service levels as defined by Microsoft at the latest stable patch level.	<b>Not Applicable</b>
Network Infrastructure	See LAC Standards and Specifications for Building and Campus Distribution Systems Version 3 (Primarily used for building construction purposes).	<b>Not Applicable</b>
Network (On-Premise)	Supported network protocol is TCP/IP (IPv4). Standards based NIC rated at 100/1000/10G copper or fiber is supported. If considering a 10G connection County IT network group shall be consulted to ensure equipment compatibility and availability at proposed site. Additional hardware cost, may be required of the project, based on project requirements, equipment and availability. The County uses Cisco technology as its default network equipment standard. Solutions shall be compatible with Cisco Network Technology.	<b>Not Applicable</b>
Remote Network Access (On-Premise)	Direct remote access to the County network and server environment shall be done using the County's Cisco AnyConnect SSH VPN. Once a VPN connection is established end-point connections are supported via Microsoft RDP. Operator support accounts shall be set up in accordance with the adopted Los Alamos County IT Usage and Security Policy #1210.	<b>Not Applicable</b>



LAC Network Account Privilege (On-Premise & Hosted)	Desktop Client Software shall function for end users with standard user privileges; user cannot install software and shall not have administrative rights.	<b>Not Applicable</b>
Desk Hardware (On-Premise & Hosted)	<p><b>Preferred:</b> Use of virtual desktop infrastructure (VDI) dual screen capable. County uses VMWare AppVolumes for Application Deployment and Packaging</p> <p>Physical unit minimum hardware requirements consist of: Intel core i5 based processor, minimum 4 GB RAM, Intel integrated graphics 1280 capable video minimum, display port DVI input, 4 USB 2/3 ports.</p>	<b>Not Applicable</b>
Desktop OS (On-Premise & Hosted)	Operator software must be maintained to run on a supported OS platform service level as defined by Microsoft at the latest stable patch level.	<b>Not Applicable</b>
Internet Browser (On-Premise & Hosted)	Internal County Network: Google Chrome and Edge, at its latest version, are the installed browsers on county devices. Applications requiring Microsoft Silverlight, Java and Flash are not supported by County.	<b>Applicable</b>
Database Software Products (On-Premise)	<p>Supported database software is Microsoft (MS) SQL server version 2016 through current. New MS SQL Server product installations will require review, purchasing of licenses, appropriate hardware, and maintenance in support of proposed project or instance install to the County MS SQL Server Environment. MS SQL server software for new implementations shall be at within the Microsoft certified support release level or current. Server components for proposed projects require review and purchasing as part of the project initiative. Operator software must be maintained to run on a supported platform service level as defined by Microsoft.</p> <ul style="list-style-type: none"> <li>• Passwords are not permitted to be transported in clear\plain text.</li> <li>• Vendor implementation shall not use the SA password for user level functions. SA passwords shall be maintained by the County DBA.</li> <li>• Only database instances can be installed on the County MS-SQL Environment. If a vendor software component install is necessary on the database server, a standalone installation will be required.</li> <li>• Vendor software must use standard Access &amp; Connection architecture for accessing databases on the County MS-SQL Environment.</li> <li>• Applications based on Microsoft Access are not supported. Applications based on SQLEXPRESS version should be reviewed and the limitation understood by the customers and the vendor.</li> </ul> <p>Hosted solutions shall be compliant with or provide a method to provide the County with database exports in the MS-SQL Server format.</p>	<b>Not Applicable</b>

Internet: Collaboration and Web Publishing (On-Premise & Hosted)	Use of Internet apps or links shall be considered in collaboration with the Los Alamos Information Management Division Applications group for review to ensure that compatibility and Internet publishing protocols have been satisfied prior to formation of any agreement or installation.	<b>Not Applicable</b>
Intranet: Collaboration and Web Publishing (On-Premise & Hosted)	Microsoft SharePoint Online is the basis for the County's Intranet. Any products that will integrate or utilize the County's Intranet site shall require a compatibility consultation with IM Division before purchase and implementation. Operator software shall be maintained to run on supported platform service levels as defined by Microsoft and/or the Intranet site vendor. Proposed Intranet software products shall be accompanied by roadmap for compatibility with MS SP Online.	<b>Not Applicable</b>
Productivity Software (On-Premise & Hosted)	Los Alamos County uses Microsoft M365 Office Suite at its most recent version and service pack. Operator software using the Office suite must be maintained to run on supported platform service levels as defined by Microsoft.	<b>Not Applicable</b>
Email (On-Premise & Hosted)	Microsoft M365 with hub transport for relay. If SMTP relay access from on premise vendor specific software is necessary, permission to use the County Email exchange shall be obtained prior to contracting or purchase of the software or solution. If SMTP relay access from hosted vendor specific software is necessary, preference is for SMTP relay to be hosted by vendor. The vendor specific solution must be supported and maintained to relay off County email domain and directed to hand off the email message to another mail server that can get the message closer to its intended recipient in accordance with service levels as defined by Microsoft for the M365 product.	<b>Not Applicable</b>
Geographic Information Standards (GIS) (On-Premise & Hosted)	The County uses strictly ArcGIS products by Esri for GIS. Desktop software for end users includes ArcGIS Desktop and ArcGIS Pro. GIS web services are provided as REST endpoints from ArcGIS Server using Internet Information Services (IIS). Our enterprise geodatabase is managed using ArcSDE with Microsoft SQL Server. Supported versions are one or two iterations behind the latest ESRI-supported release. The preferred method for applications to interact with GIS is via REST services. Web applications must be hosted in either ArcGIS Online or ArcGIS Portal.	<b>Not Applicable</b>
Mobile Devices	Shall conform to Los Alamos County Mobile Policy #1240. Mobile devices requiring Intranet access must be secured through the County Mobile Device Management System.	<b>Not Applicable</b>
Security & SSL (On-Premise & Hosted)	Any requirements for access to ports from the Internet into the County Network shall be approved via a technical review by the IM Division before product(s) purchase and implementation. Cisco Secure EndPoint Antivirus and Antispyware Enterprise software are used on all intranet computing devices; vendor solutions shall work in conjunction with stated antivirus products. SSL (Secure Socket Layer) encryption is required for both internal and external facing web applications.	<b>Applicable</b>
Records	Shall conform to Los Alamos County Records and Information Governance Policy #0310	<b>Applicable</b>



E-Signature	Shall conform to Los Alamos County E-signature Policy #1220.	<b>Applicable</b>
Hosted/Cloud Based Services	<ul style="list-style-type: none"> <li>• Los Alamos County is interested in taking advantage of Anything as a Service (XaaS) opportunity available through Cloud Service Providers (CSP), preferably in Government Cloud (GCC). CSP data centers must be located within the United States.</li> <li>• Data centers must be FedRAMP certified for SaaS solutions procured by departments if they also store or may store Los Alamos National Laboratory (LANL) critical infrastructure data for County operations. Departments must verify with LANL authority to confirm that this requirement is applicable to the LANL information to be stored.</li> <li>• Ownership of County data held in the CSP solution shall remain with the County of Los Alamos. County may have on-demand access to the data for export/download or have the data delivered by request by the CSP, in a format agreed on by the parties.</li> </ul>	<b>Applicable</b>

**Exhibit "C"**  
**Paymentus Master Service Agreement**  
**AGR23-13**

**EXHIBIT C TO THE SERVICES AGREEMENT BETWEEN PAYMENTUS CORPORATION AND  
INCORPORATED COUNTY OF LOS ALAMOS**

**MASTER SERVICES AGREEMENT**

Client, :	Incorporated County of Los Alamos, New Mexico
Client Address:	1000 Central Ave, Suite 130 Los Alamos, NM, 87544
Contact for Notices to Client:	Deputy Utility Manger for Finance and Administration
Estimated Number of Yearly Payments:	104,000 bills per year

This Master Services Agreement ("Agreement") is entered into as of the date first written above in the Services Agreement ("Effective Date"), by and between the Client identified above and Paymentus Corporation, a Delaware Corporation with a principal place of business at 11605 N. Community House Road, Suite 300, Charlotte, NC 28277. Client and Paymentus are also referred to as "Party" and collectively as the "Parties".

**STATEMENT OF PURPOSE**

Paymentus desires to provide and Client desires to receive electronic bill payment services as more particularly described in this Agreement under the terms and conditions set forth herein.

**AGREEMENT**

In consideration of the mutual covenants hereinafter set forth, the receipt and sufficiency of which are hereby acknowledged, the parties, intending to be legally bound, hereby covenant and agree as follows. This Agreement consists of the following documents:

- (i) this signature page
- (ii) the General Terms and Conditions; and
- (iii) the following Schedules:
  - Schedule A:** Paymentus Service Fee Schedule
  - Schedule B:** Additional Paymentus Services
  - Schedule C:** Client Payment Data

This Agreement, and the Services Agreement to which it is attached, represents the entire agreement between the parties with respect to its subject matter, supersedes all prior written or oral agreements or understandings related to the subject matter hereof, and may be changed only by agreements in writing signed by the authorized representatives of each of the parties. To the extent that there is a conflict between this Exhibit C and the Services Agreement, the Services Agreement shall control.

**IN WITNESS WHEREOF**, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives.

<b>CLIENT:</b>	<b>PAYMENTUS:</b>
By: _____	By: _____
NAME: Steven Lynne	NAME: Jerry Portocalis
TITLE: County Manager	TITLE: Chief Commercial Officer
DATE: _____	DATE: _____

## GENERAL TERMS AND CONDITIONS BY AND BETWEEN PAYMENTUS CORPORATION AND LOS ALAMOS COUNTY

### 1 **Definitions:**

For the purposes of the Agreement, the following terms and words have the meaning ascribed to them, unless the context clearly indicates otherwise.

- 1.1 **“Agreement”** or **“Master Agreement”** means the Master Services Agreement between the parties, as amended from time to time.
- 1.2 **“Average Bill Amount”** means the total amount of Payments processed through Paymentus in a given month divided by the number of the Payments for the same month.
- 1.3 **“Effective Date”** is the date the last party to execute the Agreement as indicated below the signature line, unless the Agreement is submitted to Client for acceptance in a manner that does not call for Paymentus to execute it, in which event the Effective Date shall be the date that Client signs the Agreement.
- 1.4 **“Excess Payment Amount”** means the Payment Amounts from Non-Qualified Transactions processed in a calendar month.
- 1.5 **“Fee Assumptions”** means information used to calculate the Paymentus Fee (as defined in Section 3.2), including (i) the projected Average Bill Amount, and (ii) the projected payment method mix (credit vs debit vs e-check) of all card Payments processed that month.
- 1.6 **“Initial Setup”** means the first personalization and activation of the standard service with respect to each channel described on Schedule A as specified during the implementation process.
- 1.7 **“IPN”** or **“Instant Payment Network”** means the network developed by Paymentus to enable customer engagement, bill presentment and receipt of payments by businesses through multiple channels as enabled from time to time by Paymentus.
- 1.8 **“Launch Date”** means the date on which Client completes the introduction to Users of

all Services selected by Client as of the Effective Date.

- 1.9 **“Non-Qualified Transaction”** means one or more payments that are either (i) made with a card or payment method generally issued for business use that results in interchange fees or other processing charges assessed by a Paymentus Authorized Processor or card payment association that are higher than those charged for transactions with card payment methods issued for consumer use; or (ii) that do not qualify for reduced interchange fees under programs in which Client is then currently participating. These high-cost card payment methods may include among others, corporate cards, virtual cards, purchase cards, business cards, travel and entertainment cards, or payment of a commercial account.
- 1.10 **“Payment”** means payment by a User through the Platform for Client’s services, Client’s bills, or other amounts owed to Client.
- 1.11 **“Payment Amount”** means the amount of a Payment.
- 1.12 **“Paymentus Authorized Processor”** means a Paymentus authorized merchant account provider or payment processing intermediary or gateway.
- 1.13 **“Paymentus Fee”** is defined in Section 3.2.
- 1.14 **“Platform”** is defined in Section 2.1.
- 1.15 **“Reversed or Chargeback Transactions”** means cancelled transactions due to User error, a User’s challenge to Payment authenticity, or action by a financial institution or a Paymentus Authorized Processor (commonly referred to as ACH or eCheck returns or credit/debit card chargebacks).
- 1.16 **“Services”** means the performance by Paymentus of the payment and related services selected by Client as set forth in Schedule A and as provided in Section 2.3.

1.17 **“User”** means a user of Client’s services.

## **2 Description of Services to be Performed**

### **2.1 Scope of Services**

When selected on Schedule A, Paymentus will provide Users the opportunity to view and receive bills, make Payments using the payment methods provided under Schedule A and other payment methods and wallets as offered by Paymentus from time to time. The payment methods and other services provided may be used within the channels described on Schedule A or on other websites or mobile/web apps or chatbots or voice assistants that are part of the Instant Payment Network, (collectively referred to as the “Platform”). Paymentus will provide a mechanism by which Client may select the channels and payment methods Client wishes to offer Users. Paymentus will be the exclusive provider to Client of the Services.

### **2.2 Professionalism**

Paymentus will perform the Services in a professional manner.

### **2.3 New or Enhanced Services**

From time to time Paymentus may offer Client new or enhanced services, such as new functionality within the IPN, the ability to accept other payment methods, methods of bill presentment, the ability to access alternative payment processors or other service providers or Paymentus Authorized Processors or otherwise modify the terms and conditions under which the Services are provided (“Service Enhancements”). Paymentus will provide Client with notice and County may request the Services as described in Section 12 of the Services Agreement.

## **3 Compensation**

### **3.1 No Fee Installation**

Paymentus will charge no fees related to the Initial Setup of standard service.

### **3.2 Paymentus Fee**

Client will be billed the fees as provided in Schedule A (“Paymentus Fee”), unless a fee is noted on Schedule A to be User paid, in which case Paymentus will charge each User the Paymentus Fee in addition to the corresponding Payment as part of the transaction. Paymentus will pay the corresponding processing and related fees (“Transaction Fees”) except for fees related to Reversed or Chargeback Transactions.

The Paymentus Fee is based on the Fee Assumptions. Client will be billed additional Paymentus Fees equal to 2.95% of the Excess Payment Amount for each month. Paymentus may amend Schedule A upon prior written notice to Client if there are changes in the card or payment system rules or changes in payment processing fees or other events that increase the cost of processing transactions, such as changes in the average Payment Amount, the mix of payment methods or of interchange rates applied to transactions. The amended Paymentus Fee will take effect 60 days after written notice to Client.

## **4 Payment Processing**

### **4.1 Integration with Client’s Billing System**

At no charge from Paymentus to Client, Paymentus will develop one (1) file format interface with Client’s billing system using Client’s existing text file format currently used to post payments to Client’s billing system. Client will be responsible to provide Paymentus with the one file format specification and will fully cooperate with Paymentus during the development of the said interface. If Client chooses to create an automated file integration process to download the posting file, due to Paymentus security requirements, Client will use Paymentus specified integration process. As such, the Paymentus platform does and can function independent of any billing system integration. A payment posting file can be emailed or downloaded from the Paymentus Agent Dashboard. If Client chooses to have the Paymentus platform integrated with its billing system, Paymentus offers two options:

- (i) Paymentus standard integration specification that Client can use to integrate its billing systems with Paymentus platform (“Standard Integration”); or
- (ii) Paymentus to either customize or configure its platform to integrate with Client using file specification or APIs supported by Client’s billing system (“Client Specific Integration”).

If Client chooses Standard Integration, Paymentus agrees to fully cooperate with Client and provide its specification to Client. Paymentus also agrees to participate in meetings with Client’s software vendor to provide any information or clarifications needed to understand Standard Integration. Paymentus agrees to provide all integration/interface specifications within 30 days from the Effective Date. Client will take commercially reasonable steps to develop the integration within 60 days from the date on which Client has received all integration specifications from Paymentus.

If Client chooses Client Specific Integration, Paymentus agrees to develop that integration at no charge from Paymentus to Client, provided however, Client agrees to fully cooperate with Paymentus and cause its software vendors and other service providers to fully cooperate with Paymentus. Client agrees to provide all specifications required for Client Specific Integration. Client further agrees to participate in testing with Paymentus and if needed, cause its billing software vendors and other service providers to participate in testing. Client agrees to provide or make available all integration/interface specifications within 30 days from the Effective Date. Paymentus will take commercially reasonable steps to develop the integration within 60 days from the date on which Paymentus has received all the integration specifications from Client or its vendors. Parties agree that if the parties do not cooperate fully, it can lead to each party being unable to perform its duties to deliver the integration in time. Based on Client's use of the Platform and its respective modules selected under the Agreement, Paymentus will require the following integration points:

MODULE	INTEGRATION POINT
One-time payment	Customer Information: Text File or Real Time  Payment Posting: Text File or Real Time
Recurring Payment	Text File
E-billing for Billing Data	Text File or Real-time link to billing data
Outbound Notification-Audience File	Text File for customer engagement messages

Each of these can be based on Standard Integration or Client Specific Integration. The Initial Setup for the Web or IVR interface will be considered complete when the first Standard Integration or Client Specific Integration, as applicable, is completed such that Paymentus and Client are able to exchange files relevant to that interface, as contemplated in this Section 4.1. In the event the Services are implemented without integration, the Initial Setup will be considered

complete when a User is able to access the Platform to process a payment.

## 4.2 Enhancements

The parties agree that the Services are provided on a "platform as a service" basis, and not as a result of custom software development. Paymentus' standard Platform will be personalized to achieve certain additional functional requirements of Client, as clarified and agreed during implementation ("Enhancements"). Enhancements may include some or all of the features included in any technical requirements or similar document provided to Paymentus. The parties will fully co-operate with one another to: a) ensure that requirements with respect to Enhancements are clarified as needed; b) accept Paymentus proposed reasonable alternatives to achieve Client's functional objectives within the limits of the Paymentus platform; and c) accept Paymentus' reasonable estimates of time for completion, designs and plans with respect to agreed Enhancements. There will be no fee charged by Paymentus to Client for Enhancements, provided Paymentus designs and plans are accepted by Client. If the Services are to be offered at multiple locations, or if the Services include multiple Enhancements, the parties will agree to a phased implementation.

## 4.3 PCI Compliance

To the extent that either party receives payment card information subject to the Payment Card Industry Data Security Standards ("PCI-DSS") in connection with providing the Services, such party will comply with all requirements of the PCI-DSS with respect to storage, transmission and disclosure of payment card information.

## 4.4 Explicit User Confirmation

Paymentus will confirm the dollar amount of all Payments, and when paid by the User, the corresponding Paymentus Fee to be charged and electronically obtain the User's approval of the charges prior to initiating payment authorizations transaction. Paymentus will provide User with electronic confirmation of all transactions.

## 4.5 Merchant Account

Paymentus will arrange for Client to have a merchant account with the Paymentus Authorized Processor for processing and settlement of transactions.

## 4.6 Payment Authorization

For authorization purposes, Paymentus will electronically transmit all card or other payment transactions to the appropriate processing center, in



real time as the transactions occur or as provided in applicable rules. In its discretion, Paymentus may refuse to process any transaction that is submitted in violation of its terms of use or to protect Client, Users, itself or others from potentially illegal, fraudulent or harmful transactions.

#### **4.7 Settlement**

Paymentus together with a Paymentus Authorized Processor will forward the payment transactions, to the appropriate organizations for settlement directly to Client's depository bank account previously designated by Client ("Client Bank Account") as a positive amount of payment processing funds, net of any User paid Paymentus Fee and any Reversed or Chargeback Transactions (described below). When Client pays the Paymentus Fee, Paymentus will invoice Client and debit the fees from the Client Bank Account on a monthly basis.

Paymentus together with the Paymentus Authorized Processor will continuously review its settlement and direct debit processes for its simplicity and efficiencies. Client and Paymentus agree to fully co-operate with each other if Paymentus were to change its settlement and invoicing processes.

#### **4.8 Reversed or Chargeback Transactions**

With respect to all Reversed or Chargeback Transactions, Client authorizes Paymentus and Paymentus Authorized Processor (and/or the respective payment organizations) to debit the Client Bank Account for the Payment Amount and/or offset the Payment Amount against future payouts and Paymentus will refund the applicable amount to the payment organization for credit back to the User the corresponding Paymentus Fee, if any.

Paymentus together with Paymentus Authorized Processor will continuously review its processes for Reversed or Chargeback Transactions for simplicity and efficiencies. Client and Paymentus agree to reasonably co-operate with each other if Paymentus requires any change to its settlement and invoicing processes for these transactions.

### **5 General Conditions of Services**

#### **5.1 Service Reports**

Paymentus will provide Client with reports summarizing use of the Services by Users for a given reporting period.

#### **5.2 User Adoption Communication by Client**

Client will communicate the Services as a payment option to its customers wherever Client usually communicates its other payment options.

Client will make the Services known or available to its customers by different means of customer communication including a) through bills, invoices and other notices; b) if direct payments have been activated, by providing IVR and Web payment details on Client's website including a "Pay Now" or similar link on a mutually agreed prominent place on the web site; c) if IVR payments have been activated, through Client's general IVR/Phone system; and d) other channels deemed appropriate by Client.

Paymentus will provide Client with logos, graphics and other marketing materials for Client's use in its communications with its customers regarding the Services and/or Paymentus.

#### **5.3 Independent Contractor**

Paymentus is an independent contractor.

#### **5.4 Client's Responsibilities**

In order for Paymentus to provide the Services, Client will co-operate with Paymentus by:

- (i) Entering into (and authorizing Paymentus to do so on its behalf) all applicable merchant processing, cash management, ACH origination, or kiosk agreements, provided that Client is given notice of and approves any additional fees associated with those agreements, and providing information and consents reasonably requested in connection with the agreements. Keeping throughout the duration of the Agreement during which direct payments via the web is activated, a bill payment link connecting to the Paymentus Platform at a location on Client's website. If the IVR channel is activated, the phone number for IVR payments will also be added to the web site and as an option as part of Client's general phone system.
- (ii) Sharing User Adoption marketing as described in Section 5.2.
- (iii) Launching the Service within 30 days of Paymentus making the system available.
- (iv) Dedicating sufficient and properly trained personnel to support the implementation process and its use of the Services in compliance with all laws applicable to its use of the Services.
- (v) Providing Paymentus with the file format specification currently used to post payments to the billing system to allow Paymentus to provide

Client with a posting file for posting to Client's billing system.

- (vi) Fully cooperating with Paymentus and securing the cooperation of its software and service providers and providing the information required to integrate with Client's billing system.
- (vii) Fully cooperating with Paymentus to integrate its systems with the Paymentus Platform through the use of Paymentus' APIs to enable Client's access to the IPN, if selected.

## **6 Warranty Disclaimer and Limitation of Liability**

### **6.1 Warranty Disclaimer**

Except as expressly set forth in the Agreement, Paymentus disclaims all other representations or warranties, express or implied, made to Client or any other person, including without limitation, any warranties regarding quality, suitability, merchantability, fitness, for a particular purpose or otherwise of any Services or any good provided incidental to the Services provided under the Agreement.

### **6.2 Limitation of Liability**

**NOTWITHSTANDING THE FOREGOING, PAYMENTUS WILL NOT BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS OR OTHER SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, EVEN IF IT HAS BEEN ADVISED OF OR COULD HAVE FORESEEN THE POSSIBILITY OF THESE DAMAGES. IN NO EVENT WILL PAYMENTUS BE LIABLE FOR ANY LOSSES OR DAMAGES RESULTING FROM THE ACTS, OMISSIONS OR ERRORS OF THIRD PARTIES OR OF CLIENT OR FOR PROVIDING AGREEMENTS, INSTRUCTIONS OR INFORMATION TO USERS AS INSTRUCTED BY CLIENT. PAYMENTUS' TOTAL LIABILITY FOR DAMAGES FOR ANY AND ALL ACTIONS ASSOCIATED WITH THE AGREEMENT OR THE SERVICES WILL IN NO EVENT EXCEED (I) FOR AN ERROR OR OTHER ACTION AFFECTING THE PROCESSING OF ONE OR MORE PAYMENTS, THE AMOUNT OF THE PAYMENTUS FEE ASSOCIATED WITH EACH PAYMENT, (II) FOR OTHER CLAIMS, THE AMOUNT OF THE PAYMENTUS FEE (NET OF DIRECT PROCESSING AND OTHER FEES PAID BY PAYMENTUS) PAID TO PAYMENTUS ("NET FEES") IN THE SIX (6) MONTHS BEFORE THE**

**EVENTS GIVING RISE TO THE CLAIM OR CLAIMS ARISING FROM THE SAME CIRCUMSTANCES; AND (III) IN NO EVENT MORE THAN THE LESSER OF \$1,000,000.00 OR THE NET TOTAL FEES UNDER THE AGREEMENT.**

## **7 Term and Termination**

### **7.1 Term**

The term ("Term") of the Agreement will commence on the Effective Date and continue for a period of 7 (seven) years from the Effective Date.

### **7.2 Material Breach**

A material breach of the Agreement will be cured within 60 (sixty) business days ("Cure Period") after a party notifies the other in writing of the breach in accordance with the Notice Provisions of this Agreement. In the event a material breach has not been cured within the Cure Period, the non-breaching party can terminate the Agreement by providing the other party with a 30 business days' notice.

### **7.3 Upon Termination**

Upon termination of the Agreement, the parties agree to cooperate with one another to ensure that all Payments are accounted for and all refundable transactions have been completed. Upon termination, Paymentus will cease all Services being provided hereunder unless otherwise agreed in writing.

## **8. Intellectual Property**

In order that Client may promote the Services and Paymentus' role in providing the Services, Paymentus grants to Client a revocable, non-exclusive, royalty-free, license to use Paymentus' logo and other service marks (the "Paymentus Marks") for this purpose only. Client does not have any right, title, license or interest, express or implied in and to any object code, software, hardware, trademarks, service mark, trade name, formula, system, know-how, telephone number, telephone line, domain name, URL, copyright image, text, script (including, without limitation, any script used by Paymentus on the IVR or the Website) or other intellectual property right of Paymentus ("Paymentus Intellectual Property"). All Paymentus Marks, Paymentus Intellectual Property, and the Platform and all rights therein (other than rights expressly granted herein) and goodwill pertain thereto belong exclusively to Paymentus.

## **9. Miscellaneous**

### **9.1 Authorized Representative**

Each party will designate an individual to act as its representative, with the authority to transmit instructions and receive information. The parties may from time to time designate and notify the other party of other individuals or change the individuals.

### **9.2 Attorney's Fees**

Should any litigation or other dispute requiring the involvement of attorneys arise between the parties concerning the Agreement, the parties agree to bear their own costs and attorney's fees.

### **9.3 Force Majeure**

Each of the Party's will be excused from performing the Services or other non-monetary obligations to the extent such Party's performance is delayed, impaired or rendered impossible by acts of God or other events that are beyond such Party's reasonable control and without its fault or judgment, including without limitation, natural disasters, war, terrorist acts, riots, acts of a governmental entity (in a sovereign or contractual capacity), explosions, extra-ordinary loss of utilities (including telecommunications services), or external computer "hacker" attacks.

### **9.4 No Third Party Beneficiaries.**

Nothing in this Agreement, express or implied, is intended to confer rights, benefits, remedies, obligations or liabilities on any person (including Users or customers of the parties) other than the parties or their respective successors and permitted assigns.



**Schedule A to Exhibit C**  
**Paymentus Service Fee Schedule**

The Services will initially consist of the Services indicated in the following table for all County Utility payments through the channels described below, throughout the term of this Agreement. The Paymentus Fee will be as specified below and will be paid by the Client.

Fees include, at no additional cost to County, all Services and Support included in the cost proposal, included herein by reference, unless otherwise stated herein.

<b>Channels</b>	<b>Services</b>	<b>Payment Methods &amp; Channels</b>	<b>Paymentus Fee – Utility Payments, County Absorbed Fee Structure</b>
Instant Payment Network™	Ebill Presentment and Customer Engagement	All payment channels and methods offered under IPN such as PayPal, Venmo, PayPal Credit, Secure PDF Push, Chatbot, Advanced Notification Service (ECM), Text 2 Pay, Voice Assistants, Mobile Apps and others as offered by Payments from time to time	<p>\$2.25 per \$350.00 increment, or portion thereof, per transaction (all Credit, Debit, and non-ACH IPN payments)</p> <p>\$1.25 per \$350.00 increment, or portion thereof, per ACH/eCheck transaction.</p> <p>Non-Qualified transaction fees as described in Exhibit C, Section 1.9 and 3.2.</p> <p>2,000 outbound notifications included at no cost; additional notifications at \$0.20 per message.</p>
Direct Payments (Web, IVR, Recurring)	Ebill Presentment and Customer Engagement	Credit, Debit, ACH	<p>\$2.25 per \$350.00 increment, or portion thereof, per Credit or Debit card transaction (Visa, Mastercard, Discover, AMEX)</p> <p>\$1.25 per \$350.00 increment, or portion thereof, per ACH/eCheck transaction.</p> <p>Non-Qualified transaction fees as described in Exhibit C. Section 1.9 and 3.2.</p> <p>2,000 outbound notifications included at no cost; additional notifications at \$0.20 per message.</p>

**Additional Notes to Fee Schedule:**

1. Average Bill Amount: \$270.00.
2. Maximum Amount accepted via credit and debit card per payment is \$999.99 (billed, based upon each \$350.00 payment increment). Multiple payments may be made.
3. Maximum Amount accepted per ACH payment is \$25,000. Multiple payments may be made
4. Outbound notifications include phone, email, and text notifications.
5. Chargebacks and returned checks will be billed at \$9.95 per item.

**Schedule B – to Exhibit C**  
**Additional Paymentus Services**

Paymentus Service Fee charged to Client will be based on the following table:

<b>Encrypted Swipe Devices</b> (optional) Manufacturer warranties will apply.		
<ul style="list-style-type: none"><li>SecureMag USB Swipe Reader Devices (non-EMV)      \$225.00 per device, as needed</li><li>Lane3000 – Standard Terminal (EMV)      \$455.70 per device, as needed</li></ul>		

**Hourly Fees:** Contractor's hourly fees for future projects, development, implementation, customization, and other professional services requested and agreed to by County shall not exceed \$200.00 per hour per person.

### **Schedule C to Exhibit C – Client Payment Data**

Annual Estimates: 104,000 bills per year and \$270.00 average bill (Utility Payments).

**Exhibit "D"**  
**Paymentus Schedule of Service Levels for**  
**Services Agreement between Paymentus Corporation and Los Alamos County, New Mexico**

Customer Service	<p>For any customer service request via <a href="mailto:customercare@paymentus.com">customercare@paymentus.com</a>, a case is created immediately with a unique case number. A response is sent to the originator with the acknowledgement that a case has been created and will include the unique case number assigned to the service request. Such response is sent within 15 minutes of the receipt of an email via Paymentus.</p> <p>A severity level is assigned to each service request upon receipt pursuant to the descriptions set forth below. In some cases, it may be appropriate to upgrade or downgrade the severity level from its initial assignment.</p> <p>Severity Levels:</p> <ul style="list-style-type: none"> <li>Severity 1: Channel Level Issue (one channel is not operational - web, IVR or agent dashboard)</li> <li>Severity 2: Business Process Issue (batch files, payment posting file). Unable to download via both automated and on-demand via agent dashboard</li> <li>Severity 3: Individual payment issue or research request for payments and charge-backs.</li> </ul> <p>Response Timeframes:</p> <ul style="list-style-type: none"> <li>Severity 1: 30-60 minutes; Paymentus Account Manager or Customer Service</li> <li>Severity 2: 4 business hours; Paymentus Account Manager or Customer Service</li> <li>Severity 3: One business day; Paymentus Account Manager or Customer Service</li> </ul>
System Availability	<p>Paymentus is expected to provide the Services 24 hours per day, 365 days per year with a 99.5% system uptime, except for scheduled maintenance that shall not be performed during normal business hours of operation from 8:00 AM to 5:00 PM (EST). Paymentus will provide Client with its maintenance schedule.</p>



# County of Los Alamos

## Staff Report

December 07, 2022

Los Alamos, NM 87544  
www.losalamosnm.us

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<b>Agenda No.:</b>	7.B.
<b>Index (Council Goals):</b>	DPU FY2022 - 5.0 Achieve Environmental Sustainability
<b>Presenters:</b>	Conservation Specialist Abbey Hayward, Conservation Specialist
<b>Legislative File:</b>	16660-22

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### Title

Conservation Plan Addendum Approval

### Recommended Action

**I move that the Board of Public Utilities approve the addendum to the Water and Energy Conservation Plan.**

### ..Utilities Manager's Recommendation

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

### Body

On October 28, 2022, a letter was received from the Office of the State Engineer requesting an addendum to the recently approved Water and Energy Conservation Plan. The addendum is to provide clarification on the Conservation Program and to address some missing points per the updated requirements of OSE.

In the submitted addendum plan, please find the following changes in watermarked sections:

- \* Pages 028-029 provide additional monitoring of non-revenue water.
- \* Pages 035-057 organize Part II into a more defined Conservation Program with priorities, support, and tools and includes additional projects, budgets, and timelines.
- \* Appendices 5 through 7 reference information on educational campaigns, project updates in the Regional Water Plan, and a county energy conservation policy.

The addendum is necessary to receive Water Trust Board funding for 2023.

### Alternatives

Not approving the addendum jeopardizes Water Trust Board funding for 2023.

### Attachments

A - Water and Energy Conservation Plan Addendum

# Water and Energy Conservation Plan

Approved by the Board of Public Utilities

August 17, 2022

DRAFT

Mission: Provide safe and reliable utility services  
in an economically and environmentally  
sustainable fashion.

# Acknowledgments

The 2022-2027 Water and Energy Conservation Plan was prepared by Abbey Hayward, Water and Energy Conservation Coordinator. The Los Alamos Department of Public Utilities appreciates the support and contributions of the following persons.

## Department of Public Utilities Staff

Philo Shelton – Utilities Manager  
James Alarid – Deputy Utilities Manager/Engineering  
Jack Richardson – Deputy Utilities Manager/Gas, Water, Sewer  
Jordan Garcia – Deputy Utilities Manager/Electric Production  
Heather Garcia – Deputy Utilities Manager/Finance and Administration  
Stephen Marez – Interim Deputy Utilities Manager/Electric Distribution  
Clay Moseley – Engineering Project Manager  
Joann Gentry – Senior Management Analyst  
Catherine D’Anna – Public Relations Manager  
Ben Olbrich – Engineering Associate  
Jennifer Baca – Engineering Associate  
James Naranjo – GIS Systems Specialist

## Additional Agencies and Orgs

David Bruggeman – Los Alamos National Laboratory, Meteorologist  
Ken Waight III – Los Alamos National Laboratory, Meteorologist  
Elizabeth Watts – Pajarito Environmental Education Center, Educator

## Board of Public Utilities

Cornell Wright – Chair  
Steve Tobin – Vice Chair  
Stephen McLin – Member  
Eric Stromberg – Member  
Charlie Nakhleh – Member  
Carrie Walker – Outgoing Member  
Philo Shelton, III – Utilities Manager, Ex Officio Member  
Steven Lynne – County Manager, Ex Officio Member  
Denise Derkacs – Council Liaison





# Executive Summary

The 2022-2027 Water and Energy Conservation Plan focuses on goals and objectives, as ranked by the BPU. There is a noticeable need for conservation efforts from both sides of utility services – the supply (DPU) and the demand (Customers) – to achieve these strategic goals.

In 2013, the Board of Public Utilities (BPU) approved of six strategic goals to guide the Department of Public Utilities (DPU). The DPU Senior Management Team (SMT) then developed broad, long-term objectives detailing how the department would meet the strategic goals. Goals are reviewed annually by both BPU and DPU SMT and revised based on achievement(s) of objectives. The DPU strategic goals and objectives were most recently approved on September 15, 2021.

This plan primarily focuses on Goal 5.0 – Achieve Environmental Sustainability, and has a supporting focus on Goal 6.0 – Develop and Strengthen Partnerships with Stakeholders.

Fiscal-year deliverables are established in this plan to make progress toward objectives and overall strategic goals. Deliverables in this plan were developed with suggestions from various community committees, DPU staff, and the BPU.

Strategic objectives for Goal 5.0, in order of highest priority to lowest priority:

1. Be a carbon neutral electric provider by 2040.
2. Provide Class 1A effluent water in Los Alamos County.
3. Reduce natural gas usage by 5% per capita per heating degree day by 2030 and support elimination of natural gas by 2070.
4. Promote electric efficiency through targeted electric conservation programs.
5. Reduce potable water use by 12% per capita per day by 2030.

Strategic objective for Goal 6.0:

1. Communicate with stakeholders to strengthen existing partnerships and identify new potential mutually beneficial partnering opportunities.

## Part I

Local Conditions

Water Resources

Electrical  
Resources

Gas Resources

Supplier  
Performance in  
each utility

## Part II

Education

Carbon Neutral

Class 1A Effluent

Natural Gas

Energy Efficiency

Potable Water

Partnerships

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# Abbreviations

BPU	Board of Public Utilities
DPU	Department of Public Utilities
SMT	Senior Management Team
DOE	Department of Energy
WAPA	Western Area Power Administration
NMOSE	New Mexico Office of the State Engineer
LANL	Los Alamos National Laboratory
ECA	Electric Coordination Agreement
IRP	Integrated Resource Plan
PEEC	Pajarito Environmental Education Center
ESB	Environmental Sustainability Board
LARES	Los Alamos Resiliency, Energy, and Sustainability (Task Force)
USDM	US Drought Monitor
LRWS	Long-Range Water Supply
WWTP	Wastewater Treatment Plant
PNM	Public Service Company of New Mexico
SAIDI	System Average Interruption Duration Index
CFPP	Carbon Free Power Project
GPCD	Gallons Per Capita Per Day
SFR	Single Family Residence
MFR	Multi-Family Residence
AWWA	American Water Works Association
SJGS	San Juan Generating Station
HDD	Heating Degree Day
WRRF	Water Resource Reclamation Facility
UAMPS	Utah Associated Municipal Power Systems



# Part I

## Background Information and Data of Los Alamos County and Its Utilities

# Introduction

## Purpose

The Water and Energy Conservation Plan is being updated to best identify and provide target measures for conservation of critical resources needed for a community to thrive in the high desert of New Mexico. In the face of a changing climate, there is increasing pressure for the Los Alamos DPU to provide reliable and efficient sources for its utilities. A hotter and drier climate will strain grid systems and water supplies. There is also increasing pressure on consumers to conserve and efficiently use these same resources to accommodate a growing community and to ensure resources will last.

The DPU operates the county-owned electric, gas, water, and wastewater systems servicing customers, including residents, businesses, schools, and local government facilities. The DPU has provided the community with these services for more than 50 years. Publicly held, DPU is directly accountable to the citizens of Los Alamos County through the local BPU.

This document serves as an evolving plan to meet the following objectives :

- Support DPU's mission, vision, and long-term strategic goals.
- Develop cost-effective conservation programs to move the community toward defined conservation goals.
- Establish consumption baselines for water, electricity, and gas representative of designated customer classes.
- Adopt appropriate and reasonable conservation goals representative of community desires.
- Develop an implementation plan and measurement metrics of conservation efforts.

The Water and Energy Conservation Plan focuses on the planning period of 2022-2027. However, this document will be reviewed and updated biannually to accommodate successes and unforeseen changes to DPU resource supply and consumer needs.

## Compliance

This plan serves two separate compliance requirements. The first is to fulfill a federal regulatory requirement as part of Los Alamos County's section of the joint Integrated Resource Plan (IRP) with the Department of Energy (DOE). This compliance piece requires the development and implementation of a water and energy conservation plan that addresses both the supply-side (DPU) and demand-side (customer) of water and energy conservation efforts, which is then submitted to the Western Area Power Administration (WAPA) annually. The second compliance requirement, which is filed with the New Mexico Office of the State Engineer (NMOSE), is conditional pending current projects.



## Partners

### Los Alamos National Laboratory, Department of Energy

Conservation efforts in this plan are not directed toward the DOE or the Los Alamos National Laboratory (LANL). LANL is a facility that falls under the requirements of DOE, neither of which are under the jurisdiction of DPU. There is a contract to supply DOE with water for LANL and DPU is a partner with DOE in the Electric Coordination Agreement (ECA). Los Alamos County and DOE also have a joint IRP, which guides the ECA. LANL also has a site-wide Water Conservation Program Plan. DPU and LANL will coordinate and communicate conservation efforts and support long-term conservation goals.

### Pajarito Environmental Education Center

DPU partners with Pajarito Environmental Education Center (PEEC) on educational outreach efforts in a contracted format. PEEC is very involved with the schools in the county, in addition to its own programming at the Nature Center. DPU and PEEC agree on annual task orders that promote evolving conservation foci for the schools and community members.

### Los Alamos Environmental Sustainability Board

The Los Alamos Environmental Sustainability Board (ESB) updates the County's Environmental Sustainability Plan. While DPU and the ESB support one another's plans, this Water and Energy Conservation Plan focuses specifically on the commodities provided by DPU. The Environmental Sustainability Plan goes beyond water and energy usage by establishing goals in other areas crucial to creating a more sustainable community.

## Public Input

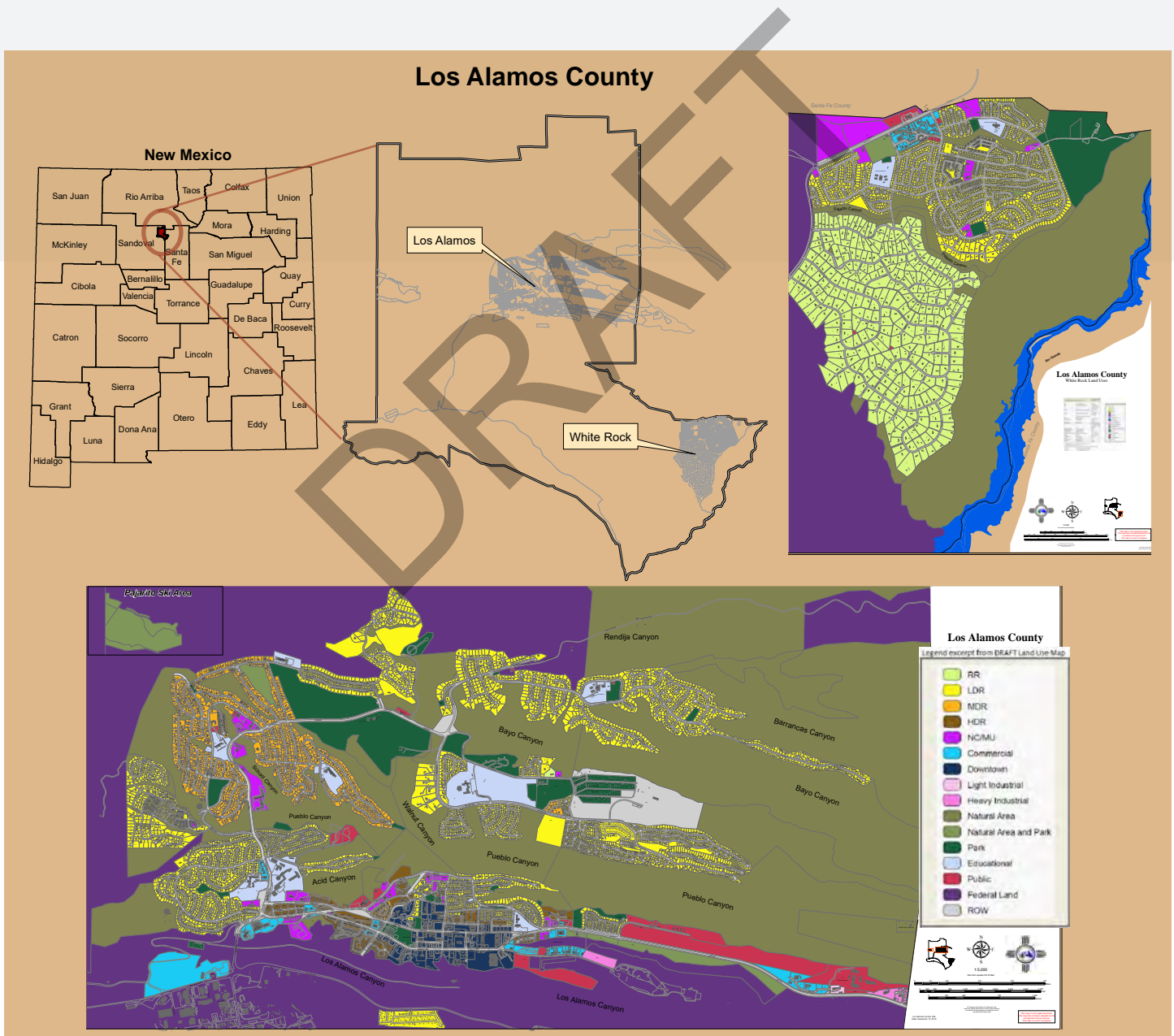
A "Conservation Plan Update Committee" was formed by DPU in early 2020 to begin to address and provide recommendations to the existing Water and Energy Conservation Plan. However, two factors overshadowed the extent of the group's efforts. The first was the onset of the COVID-19 pandemic which slowed the group's first progression as the scope of the pandemic was unknown. The second factor was the formation of the Los Alamos Resiliency, Energy, and Sustainability (LARES) task force by Los Alamos County Council in January 2021. The LARES task force was assembled to address very similar recommendations that the update committee was working toward.

Regarding the suggestions and recommendations from each of these groups, it is important to note: the recommendations from the Plan Update Committee were considered as this committee was specifically formed by the DPU for this very purpose. The LARES Final Report recommendations are not incorporated into this plan update because they go beyond the scope of DPU's responsibilities and reach. However, many of the recommendations will be supported by and potentially partnered with DPU, as efforts align.

Additional updates to this plan will incorporate suggestions, pending BPU approval, stemming from the "Voice of the Customer" survey created by. This survey is an opportunity for DPU to better understand its customers' perceptions and wants of the DPU.

# Local Conditions

Los Alamos County is located in northern New Mexico and comprises the communities of Los Alamos and White Rock. Nestled in a region known as the Pajarito Plateau, the service area ranges in elevation from 6,365 feet in White Rock up to 7,320 feet in the Los Alamos townsite. The population for the county was 19,419 per the 2020 Census. The County is surrounded by various Pueblos including San Ildefonso and Santa Clara, and by protected areas including the Santa Fe National Forest and Bandelier National Monument. Modern-day Los Alamos was incorporated in 1968, after two decades of existing as the Manhattan Project's Site Y. Prior to 1963, no land was privately owned and three federal agencies – the Atomic Energy Commission, the US Forest Service, and the National Park Service – owned and managed all land.





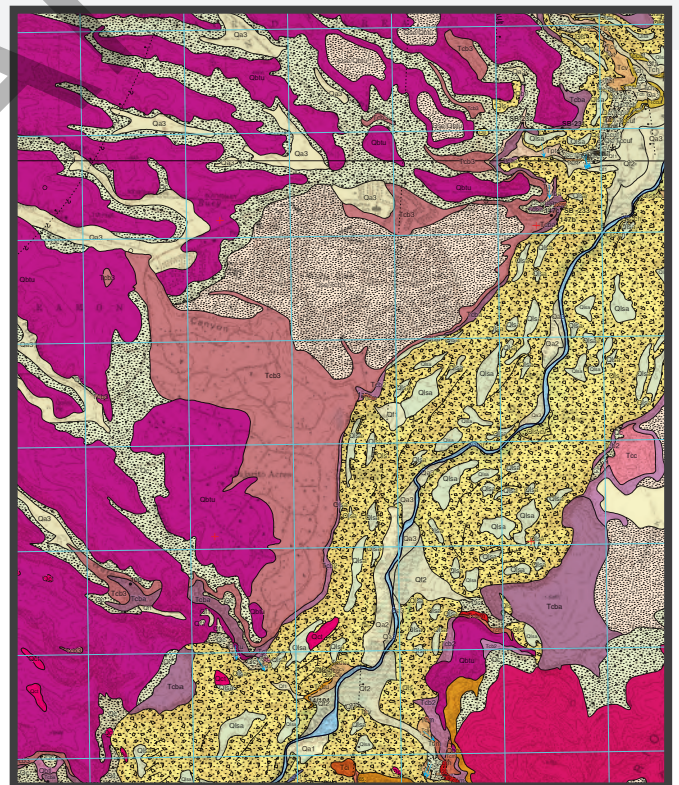
# Geographical Considerations



Geologic Map of Los Alamos townsite. Basic interpretation: green designates rhyodacite lava flows; tan designates Bandelier Tuff; yellow, pink, and red designate sedimentary deposits.

Initially chosen for its relative inaccessibility, Los Alamos County is spread across several flat mesas separated by steep canyons. The geology is primarily volcanic, consisting of Upper Bandelier Tuff, basalts, and rhyodacite lava flows, with some areas of sedimentary deposits from alluvial flows and stream deposits as the Rio Grande and previous rivers transformed over time.

The geological deposits impact utility placement. For example, the basalts and certain areas of the Bandelier Tuff are very hard and restrict water well, pipeline (water, gas, or sewer), and buried electricity infrastructure placement. There is an area of White Rock that is unable to be connected to the municipal sewer and gas systems because the geology prevents the infrastructure. Other considerations include areas prone to rockfalls, such as with the rhyodacite (green) flow, and placing utility sources here (maintenance costs, reliability issues, etc.).



Geologic Map of White Rock. Basic interpretation: hot pink designates Bandelier Tuff; dusty pink designates basalts; dotted cream designates interspersed sedimentary deposits with basalts; most other classifications represent sedimentary deposits.

# Local Conditions

## Demographics and Projections

### Population

According to the US Census, the population for Los Alamos County increased by nearly 1,500 people between 2010 and 2020. The current population estimate (as of July 2021) is 19,330 for the county. Because of the geographical limitations of Los Alamos County, population growth is constrained until new housing developments are constructed in White Rock, new apartment buildings are constructed where defunct buildings stand in Los Alamos, or unoccupied homes become available for occupancy (renovated or sold).

Los Alamos is a destination for tourists, and the popularity of vacation rentals, such as Airbnb and VRBO, increases the population of the county by an unknown number as these visitors utilize utility resources.

LANL is the largest employer in the county and in northern New Mexico. Total employment, including students and contract labor, was 13,512 at the end of fiscal year 2021. LANL is planning to hire an additional 2000 employees in fiscal year 2022. Around 40% of these employees live in Los Alamos County.

Population estimates vary depending on the method and predictor. Los Alamos estimates can go off-track quickly depending on the employment goals of LANL. The table below shows population projections from the Geospatial and Population Studies Department at the University of New Mexico. These projections are based on 2010 Census data and migration trends and have not been updated to reflect 2020 Census data. Compare these estimates to the projections in the other table below.

July 2010	July 2020	2025	2030	2035	2040
17,935	18,765	19,164	19,501	19,753	19,941

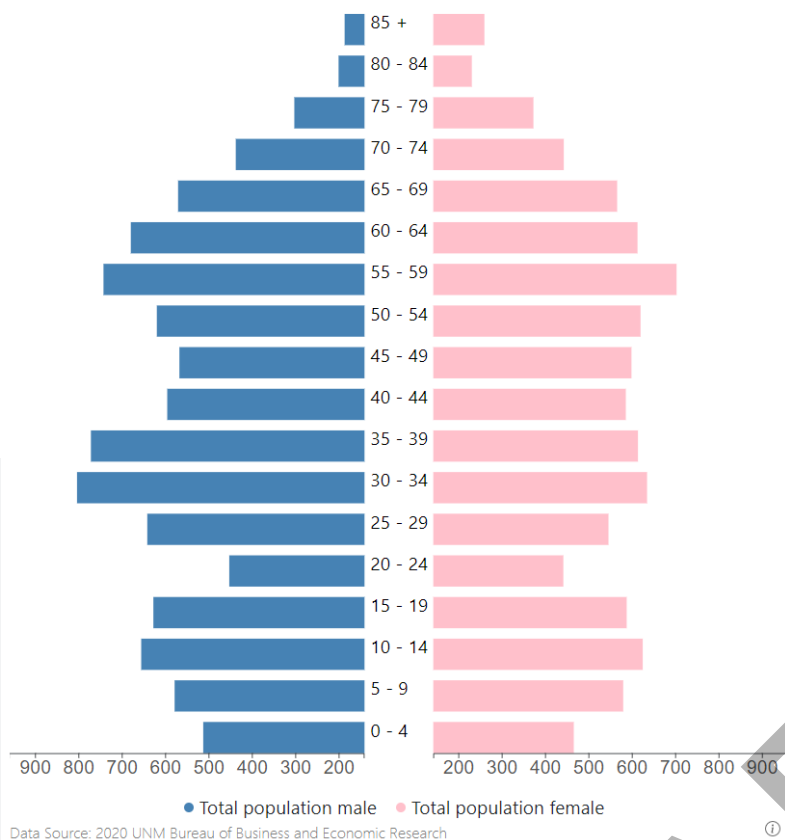
Geospatial and Population Studies Department at the University of New Mexico population projections based on 2010 Census data and migration trends.

The Long-Range Water Supply Plan (LRWS Plan), updated in 2017, has two scenarios for projected water demand based on a different set of population projections. These low- and high-projection cases are based on population estimates prepared for the 2016 update to the State of New Mexico's 16 regional water plans.

Population differences between Los Alamos townsite and White Rock show that Los Alamos is more than twice the size of White Rock. Per the 2020 Census, White Rock has a population of 5,852 while Los Alamos is 13,179.

Year	Population Projection	
	Low	High
2020	17,988	20,000
2030	17,789	20,812
2040	17,123	21,447
2050	16,480	21,874
2060	15,863	22,092

Population projections from LRWS Plan based on estimates for the 2016 version of the State of New Mexico's 16 regional water plans.



Created by the University of New Mexico Bureau of Business & Economic Research, this "population pyramid" is based on 2020 Census Data. The simplest breakdown of this data indicates that Los Alamos County is 24% child-aged (0-19 years), 58% working-aged (20-64 years), and 18% senior-aged (65+ years).

The median household income, in 2020 dollars for the period of 2016-2020, is slightly over \$119,000 for Los Alamos County. The percentage of persons in poverty is 3.3% for the county.

The primary language is English; however, nearly 14% of the population speaks another language (at least 20 different ones) including Spanish and several Asian and Pacific Island Languages.

## Housing

Most homes were built before the Energy Policy Act of 1992, which increased the energy efficiency of buildings including the required use of low-flow toilets, urinals, faucets, and showerheads as replacement installations and in new-builds.

US Census Bureau compiles housing data in its Table DP04: Selected Housing Characteristics. The latest dataset available for Los Alamos is the 2019: American Community Survey 5-Year Estimates.

It can be assumed from this information that around 7,000 homes in Los Alamos County were built prior to 1994, when enforcement of the Energy Policy Act of 1992 began. It is unknown how many of these 7,000 homes have done upgrades or retrofits. This provides a potentially large customer base to target with specific conservation efforts like improved appliance efficiency, insulation, and weather stripping.

Landscape preferences vary throughout the county, from extensive lawns to complete xeriscaped yards. Precise numbers of each are unknown but increased water usage during the summer months is indicative of landscape maintenance.

## Total Housing Units: 8,384



Pre-1940:  
24



1940-1949:  
621



1950-1959:  
1360



1960-1969:  
1570



1970-1979:  
1875



1980-1989:  
1039



1990-1999:  
708



2000-2009:  
1064



After 2009:  
123



# Local Conditions

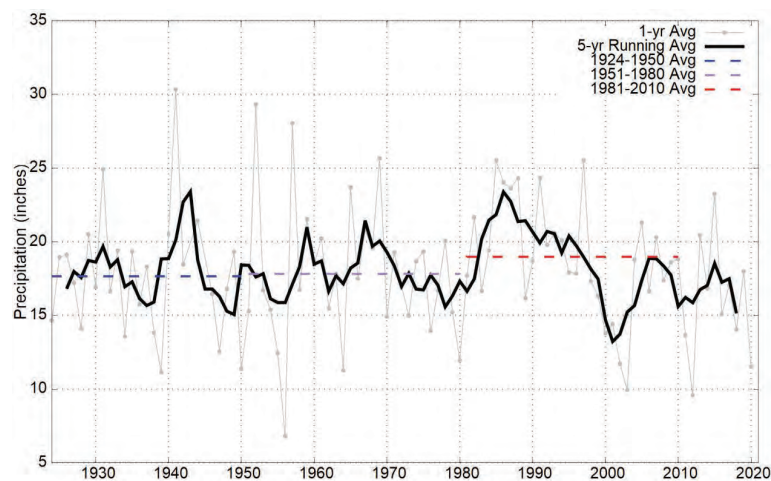
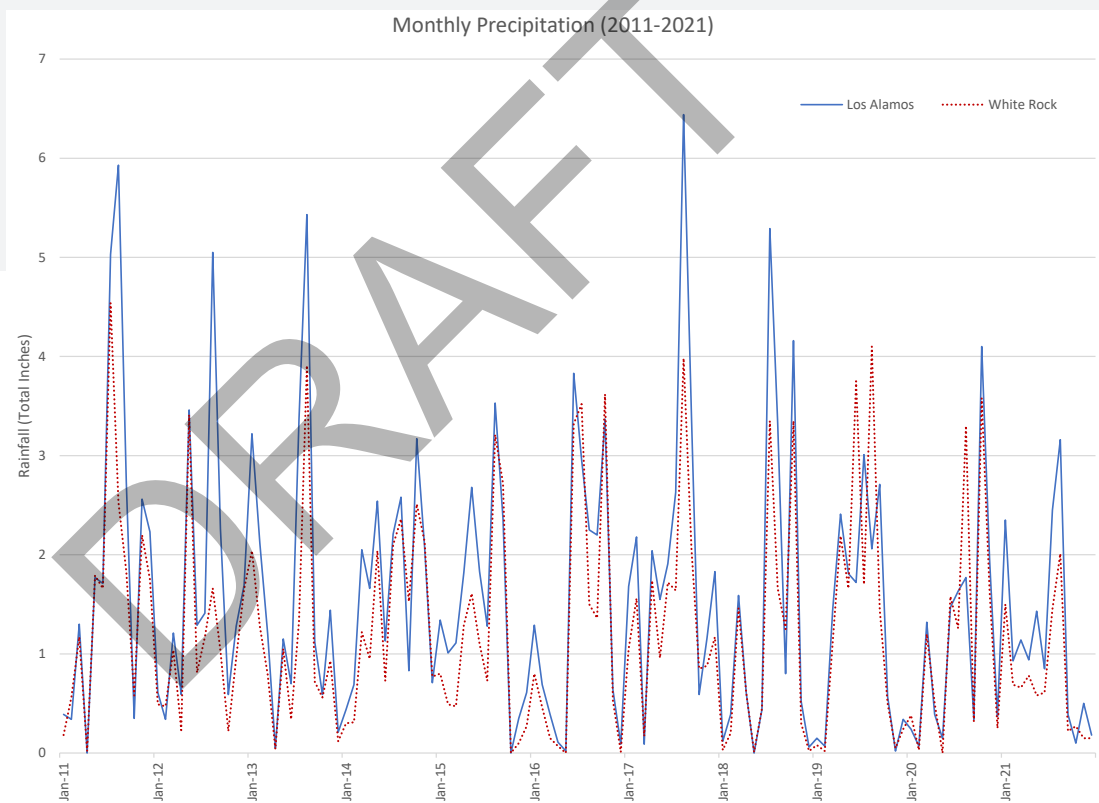
## Climate Trends

All weather data comes from the LANL Weather Machine, which maintains many weather stations around Los Alamos County. LANL's meteorologists on staff provided data in the following charts. These charts reveal that Los Alamos and White Rock have their own distinct climate systems.

Los Alamos is at a higher elevation – around 1000 feet higher – and closer to the Jemez Mountains than White Rock. Therefore, Los Alamos has a wetter, cooler climate overall. LANL meteorologists recently released the “Los Alamos Climatology 2021 Update,” which provides climate statistics for the 30-year, 1991-2020 averaging period. More in-depth information regarding the climate of Los Alamos County can be found in their report.

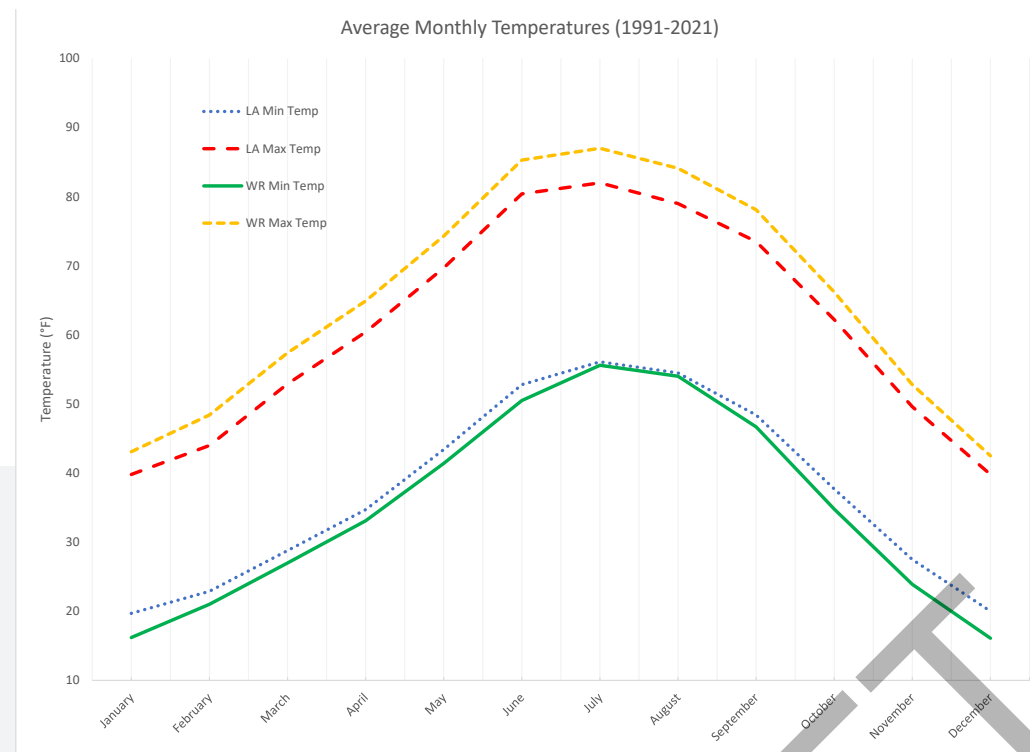
Right: Monthly total precipitation data for Los Alamos (blue solid) and White Rock (red dot) from January 2011 to December 2021. A complete monthly total precipitation chart (1991-2021) can be found in Appendix 2.

Below: Precipitation history for Los Alamos County (1924-2020) taken from the LANL Climatology 2021 Update, Figure 34.

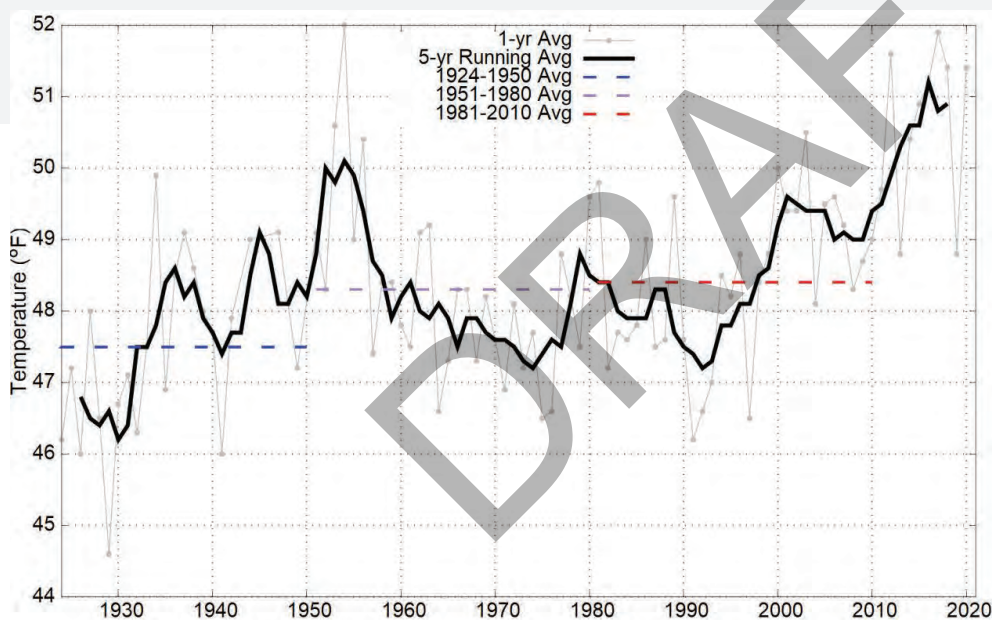


Prior to 2015, more regular cycles of precipitation associated with the monsoon season (July – September) are visible. After 2015, the precipitation cycle appears more erratic for both Los Alamos and White Rock. The area seems to be experiencing longer periods of no precipitation with intense bursts of heavy precipitation.





Regarding average monthly temperature, an important note is that the maximum summer temperatures for both communities are creeping toward an average of 90°F for a couple of months, when historically only a few days of the year would reach this temperature. And, although Los Alamos is at a higher altitude, White Rock has lower minimum temperatures when the cold air drains off the Jemez Mountains at night.



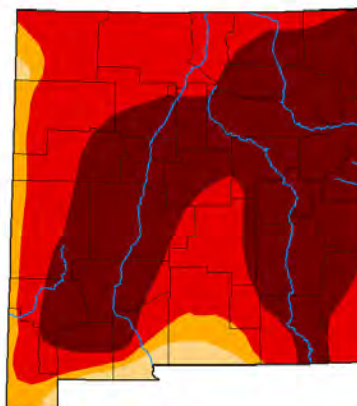
The US Drought Monitor (USDM) releases drought maps every Thursday. These maps are based on several numeric inputs, index readings, and satellite-based assessments. It's important to remember that the USDM is not a forecast, but it is a tool to use to trigger drought responses and emphasize the need for conservation efforts.

Top: Average monthly temperatures for Los Alamos (minimum temp is blue dot; maximum temp is red big dash) and White Rock (minimum temp is green solid; maximum temp is yellow small dash).

Middle: Temperature history for Los Alamos (1924-2020) taken from the LANL Climatology 2021 Update, Figure 29.

Right: An example of a USDM Map released June 21, 2022. An interesting note regarding this map: New Mexico received rain in the week prior to this map and a majority of the state remains in the worst drought condition category.

#### U.S. Drought Monitor New Mexico



**June 21, 2022**  
(Released Thursday, Jun. 23, 2022)  
Valid 8 a.m. EDT

	None	D0	D1	D2	D3	D4
Current	0.00	100.00	100.00	97.41	90.45	52.17
Last Week (06-14-2022)	0.00	100.00	100.00	97.41	90.45	52.17
3 Months Ago (03-21-2022)	0.00	99.94	96.91	91.19	39.64	5.53
Start of Calendar Year (01-01-2022)	0.00	100.00	97.83	75.85	20.91	0.00
Start of Water Year (09-01-2021)	10.70	88.30	79.47	49.33	19.12	0.00
One Year Ago (06-20-2021)	1.04	98.95	94.11	87.40	63.05	31.84

**Intensity:**  
 None (white), D0 Abnormally Dry (light yellow), D1 Moderate Drought (yellow), D2 Severe Drought (orange), D3 Extreme Drought (red), D4 Exceptional Drought (dark red).

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/about.aspx>.

**Author:**  
Adam Hartman  
NOAA/NWS/NCEP/CI/CPC

Logos for USDA, NMIC, and NOAA are displayed at the bottom.

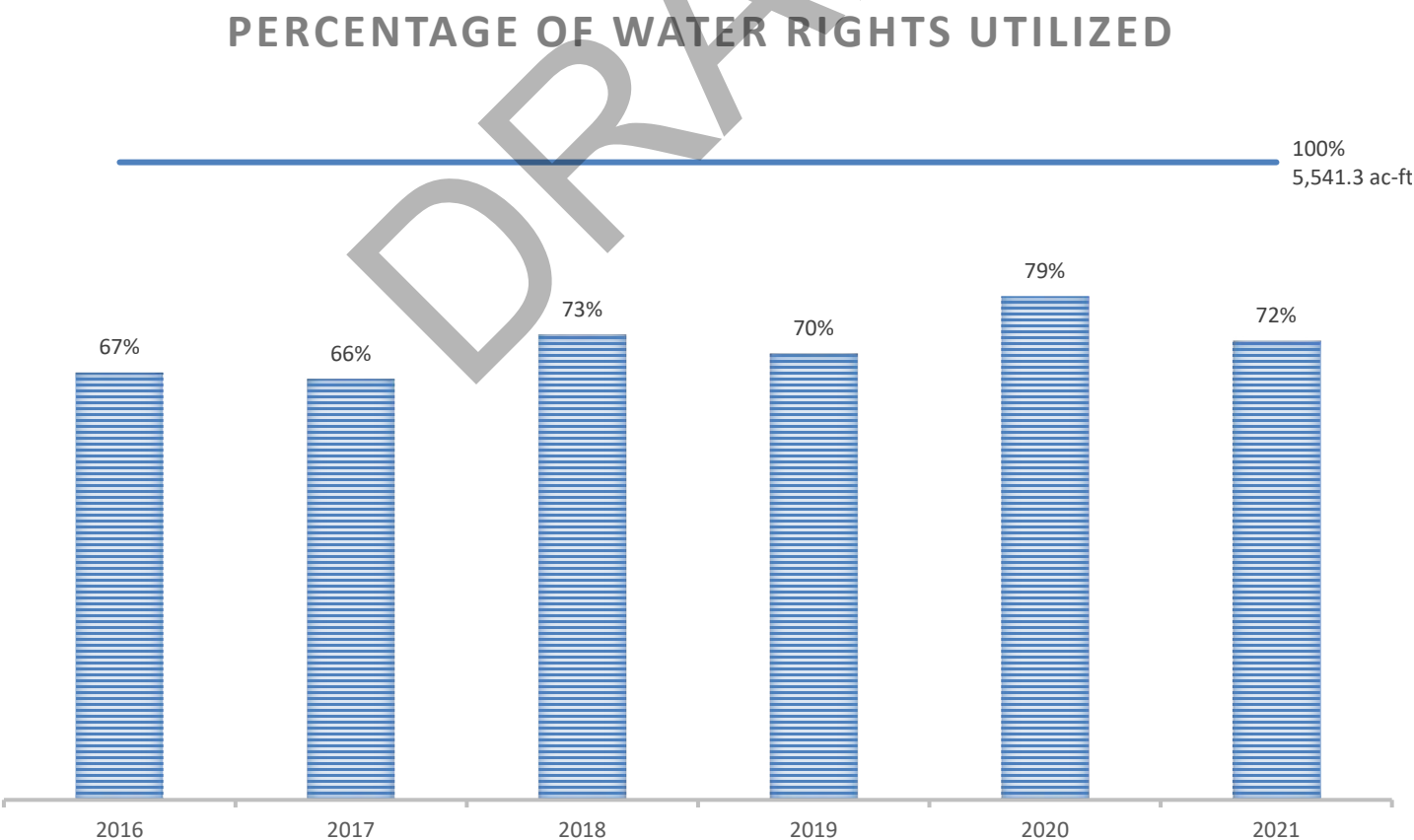
[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

# Water Resources and Supply Overview

## Water Rights

The DPU provides water service to the users in Los Alamos County, at LANL, and to Bandelier National Monument. DPU began operating the water system in 1998; however, it wasn't until 2001 that ownership and most of the water rights (70%) were transferred from the DOE. The DPU leases the remaining water rights owned by DOE. This agreement was renewed for an additional 10 years in Fiscal Year 2021. Within this agreement, there is no limit to the amount of water that DPU must provide to LANL. LANL's usage has yet to exceed any designated water rights, and it maintains a site-wide Water Conservation Program Plan.

Water rights in use for Los Alamos County total 5,541.3 acre-feet per year and are comprised of a combined right of groundwater and surface water. From the 1960s to the present, total water consumption hovers between 4,000 and 5,000 acre-feet per year.



Water rights usage data is tabulated from each water production well meter.

## Demand Projections

Daniel B. Stephens and Associates, Inc., completed an update to the Long-Range Water Supply (LRWS) Plan and it was approved by the BPU in January 2018. The LRWS Plan focuses on long-term water planning, and projects two possible outcomes as part of its demand forecast. This table shows the projected demands with and without LANL usage based on low (decreasing population) and high (increasing population) estimates.

Year	Population Projection		Projected Demand (ac-ft/yr)		Total Projected Demand- includes LANL (ac-ft/yr)	
	Low	High	Low	High	Low	High
2020	17,988	20,000	2,716	3,020	3,634	3,938
2030	17,789	20,812	2,686	3,143	4,191	4,648
2040	17,123	21,447	2,586	3,239	4,091	4,744
2050	16,480	21,874	2,488	3,303	3,993	4,808
2060	15,863	22,092	2,395	3,336	3,900	4,841

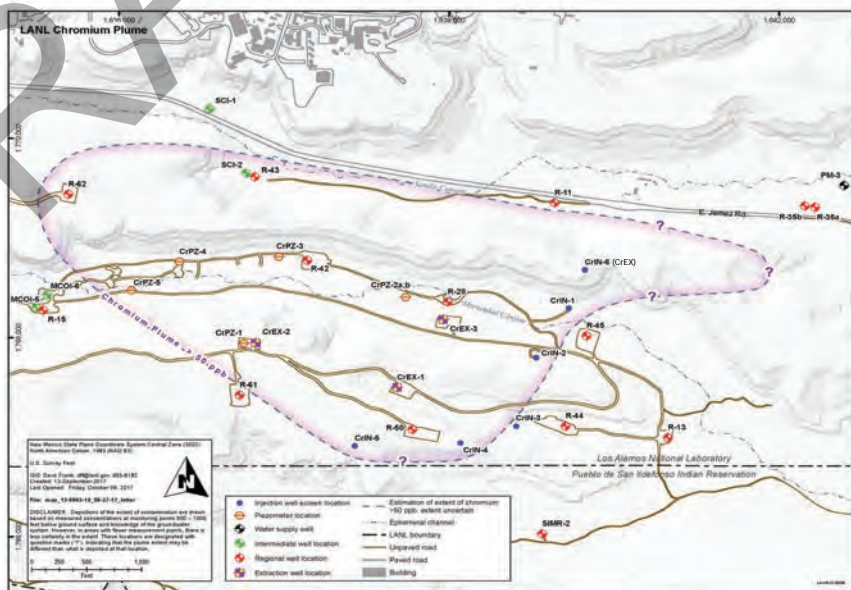
## Potential Concerns

Los Alamos County's water rights are junior to several downstream senior water rights holders. With additional growth (population, tourists, and work force) in Los Alamos County and other areas and requirements to sustain endangered species and wetland habitats, there is the potential that protection of the senior water rights could impact long-term allocation of Los Alamos County's water rights, even over the next 40 years. Additional water rights concerns include Rio Grande Offset Requirements and the difficulty in finding willing sellers of water rights, and the potential impact of the Navajo Water Rights Settlement provisions on the San Juan-Chama Project water rights.

The risk of contamination of the current and/or future groundwater supply for Los Alamos County and its service members should be acknowledged. The DPU protects drinking water sources with sound well placement and construction as well as maintaining top-performing system operations and management. The DOE is currently assessing the extent of and remediation measures for a hexavalent chromium plume that is present in the regional aquifer.

The impacts of a changing climate are one of the biggest factors out of the control of DPU and DOE. Increasing temperatures and decreasing precipitation totals will strain existing water resources. Evaporation of surface water sources and lower recharge rates of groundwater resources need to be realized as possible threats to water availability for Los Alamos County.

Approximate location of chromium plume. Located southeast of Los Alamos townsite and northwest of White Rock.

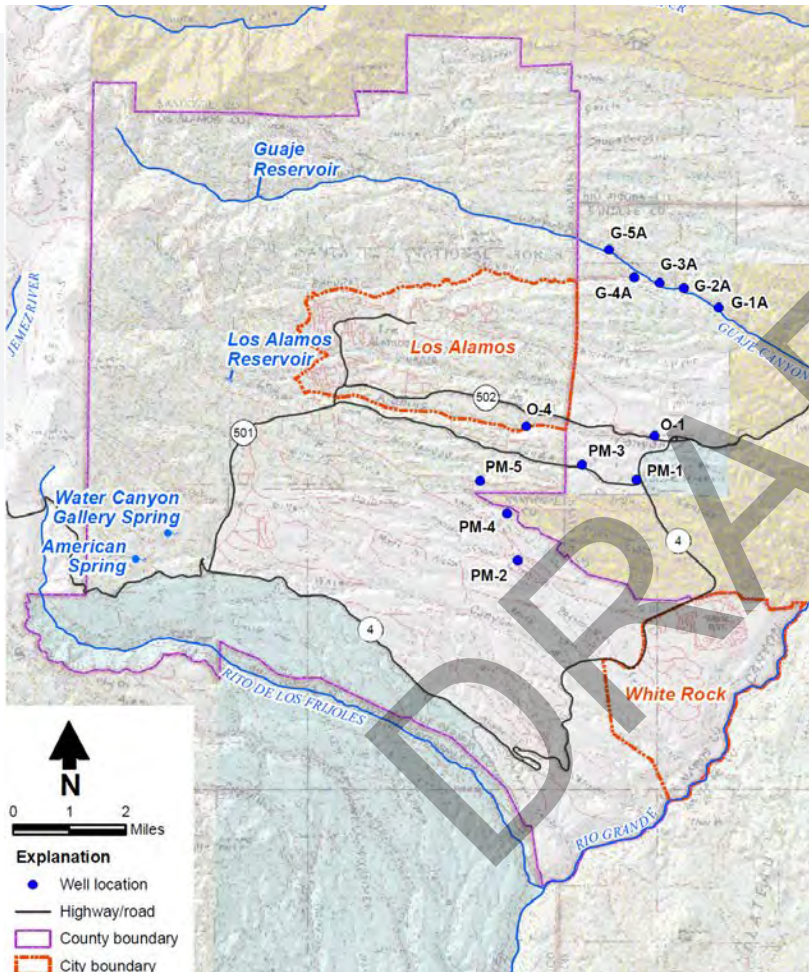


"An application for permit to change an existing water right was filed jointly by DOE and the LACWU [DPU] in May 2016, in support of the chromium interim measure project that will run through December 2023...The application requests a change in purpose of use for groundwater to add groundwater remediation and additional groundwater points of diversion to be used for control and future characterization of hexavalent chromium-contaminated groundwater...The projections assume that the water supply remains available in terms of water rights and contamination, and do not take into account the possibility of treating and using contaminated groundwater." -LRWS Plan



# Water Resources and Supply Overview

## Water Sources



Los Alamos County is currently supplied by 12 active wells that range in depth from 1,519 feet to 3,092 feet. All water is drawn from the regional aquifer beneath the Pajarito Plateau. Currently, groundwater supplies potable water from the Guaje, Pajarito, and Otowi well fields. An additional well has been drilled in the Otowi well field and will be complete in late 2022, pending material availability and supply chain issues. This well, Otowi 2, reaches a depth of 2,520 feet and will be one of DPU's largest water-producing wells, pumping between 1,200-1,300 gallons per minute.

While the County's water rights of 5,541.3 acre-feet include both surface water and groundwater, the DPU supplies its potable water for customers solely from groundwater sources. Surface water sources are primarily used for irrigation purposes and as emergency supplies for wildfires. Surface water sources include: Water Canyon Gallery Spring, Los Alamos Reservoir, Guaje Reservoir, Camp May, and the unused contracted rights in the San Juan-Chama Project.

Points of water diversion, taken from Figure 2-1 in the LRWS Plan.

### *Los Alamos Reservoir Repair*

The Los Alamos Reservoir was severely damaged after the Cerro Grande Fire in 2000 and again by the Las Conchas Fire in 2011. The reservoir has been impacted by siltation and transmission pipeline breaks because of intense and catastrophic flooding events ever since. DPU has been awarded a grant from the River Stewardship Program to help address the erosion in this watershed impacting the stream and reservoir quality and to stabilize the access pipeline and roadway. The project will clear debris and use natural channel design to restore the water channel and floodplain above and below the reservoir. It is expected to begin in the summer of 2023.

### *San Juan-Chama Project*

The San Juan-Chama Project, in the Colorado River Basin, is geographically separate from the current regional aquifer DPU utilizes for potable water. Should DPU decide to implement access to this project, this source water would help to diversify Los Alamos County's water supply. The County is contracted for 1,200 acre-feet of the San Juan-Chama Project with the US Department of the Interior Bureau of Reclamation. More information about the development of this water right can be found in Section 4.2.1 of the LRWS Plan.

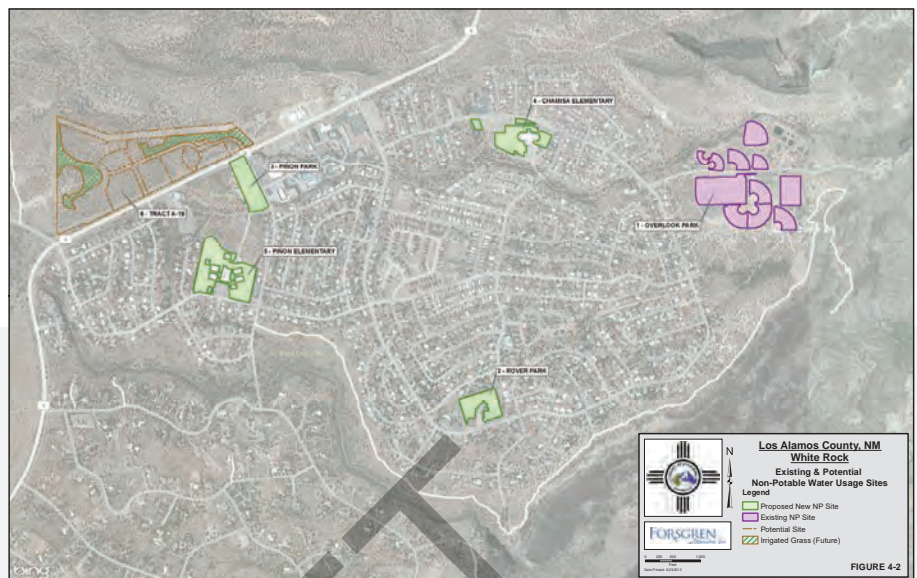
## Reclaimed Water

Wastewater is currently treated at the Los Alamos Wastewater Treatment Plant (WWTP) and the effluent is used to maintain a wetland downstream of the WWTP and to irrigate four different sites in Los Alamos: North Mesa Soccer Field, North Mesa Ball Fields, and Los Alamos County Golf Course. Effluent from the White Rock WWTP is used to irrigate Overlook Park. Per the Fiscal Year 2021 DPU Annual Report, 116 million gallons of reclaimed water was used to irrigate green spaces throughout the county.

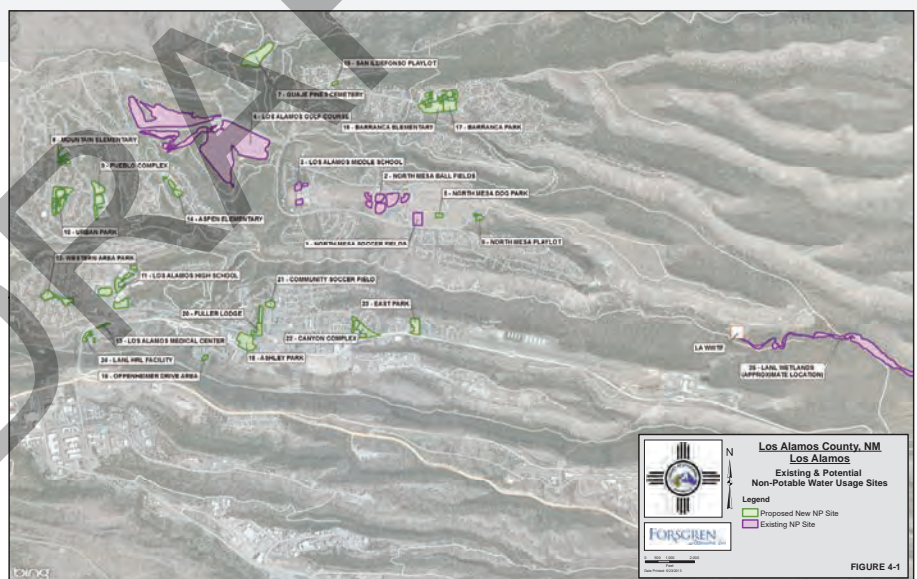
Los Alamos' original golf course began using reclaimed water in 1945 (the first in the nation to do so) and White Rock began irrigating Overlook Park with reclaimed water in 1985. DPU continues to evaluate the expansion of reclaimed water use per the guidance of the Los Alamos County Non-Potable Water System Master Plan, last updated in 2013.

The Non-Potable Water System Master Plan was prepared to optimize the use of effluent and surface water for irrigation purposes. This master plan helps DPU review existing infrastructure, evaluate existing and potential future irrigated sites, develop a realistic demand for system build-out, and recommend system improvements. This resource continues to serve as a planning tool for non-potable projects, and, as such, there is no timeline to update the Non-Potable Water System document.

Expansion of the non-potable system is supported by loan/grant funding from the New Mexico Finance Authority Water Trust Board, which is applied for annually.



Locations of non-potable/reclaimed water irrigation sites in White Rock (top) and Los Alamos townsite (bottom). Figures taken from the Non-Potable Water System Master Plan.



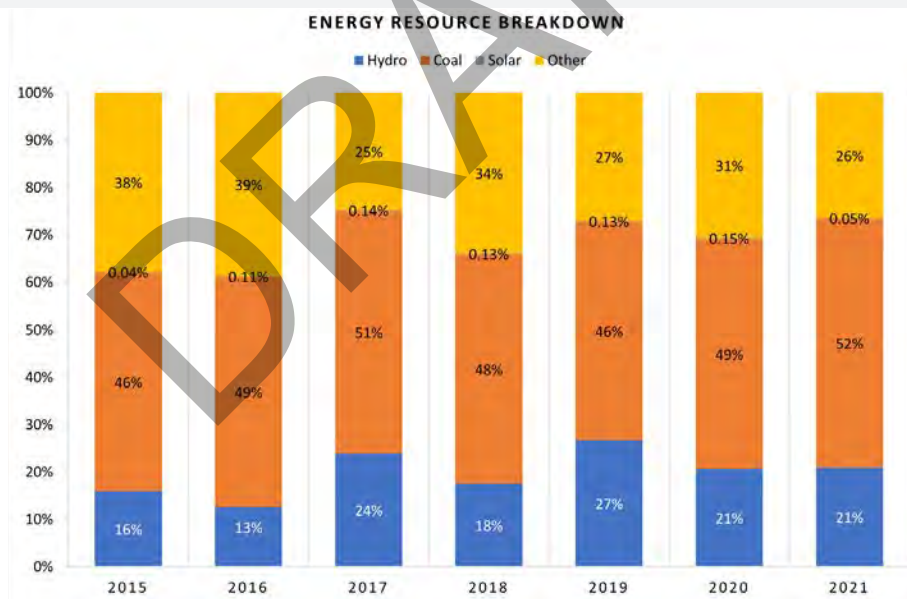


# Electrical Resources and Supply Overview

## System Components

The DPU and the DOE are joined in an ECA which allows each entity to combine resources for the Los Alamos Power Pool. The Power Pool purchases, sells, and schedules the power requirements for Los Alamos County customers and LANL. The current ECA expires in 2025 and both parties are working on negotiations for a post-2025 ECA.

Los Alamos County owns and operates the electric distribution system in Los Alamos and White Rock, and manages the Power Pool resources 24 hours a day, 365 days a year. However, the County does not own any transmission systems to get the electricity to its customers. The Public Service Company of New Mexico (PNM) provides the transmission service into Los Alamos County. DOE owns the transmission system within the county that serves both LANL and Los Alamos County. The Power Pool utilizes PNM's network to bring energy to the DOE system, and then the DOE's system feeds the County's switching stations, which distribute power to DPU customers.



County assets of the Power Pool:

- San Juan Generating Station Unit 4 (coal, 36 megawatts)
- Laramie River Station entitlement (coal, 10 megawatts)
- El Vado hydroelectric facility (hydropower, 8 megawatts)
- Abiquiu hydroelectric facility (hydropower, 17 megawatts)
- Los Alamos Western Area Power Administration entitlement (hydropower, 1 megawatt)
- East Jemez Landfill photovoltaic array (solar, 1 megawatt)
- County transmission agreements
- County purchased power contracts
  - UNIPER, 2 agreements (wind and solar, 15-25 megawatts) \* note: active as of 2022, and not reflected in above chart

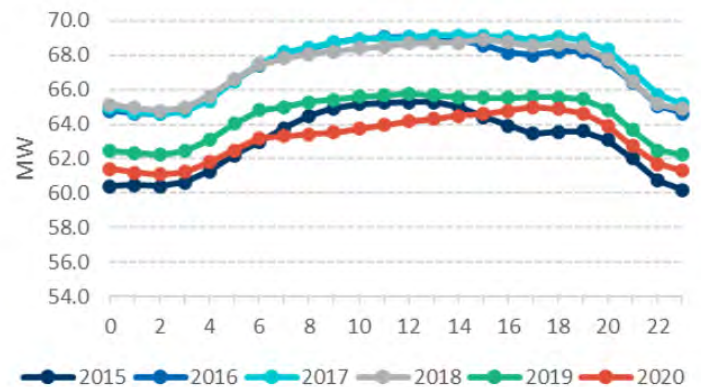


## Demand Projections

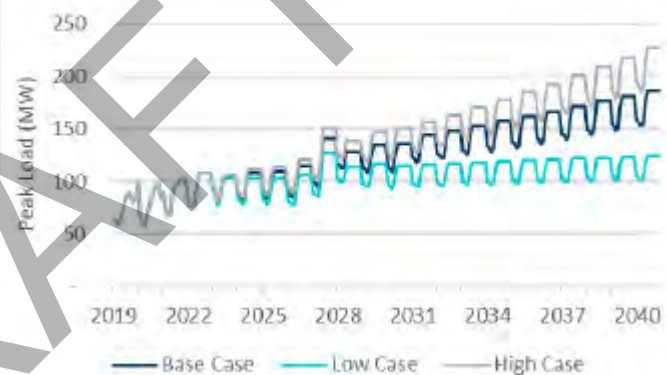
The Los Alamos County distribution system consists of the townsite substations, which provide power to approximately 7,507 customers and LANL in Los Alamos, and the White Rock substation, which provides power to approximately 2,815 customers.

The IRP provides load forecasts and demand projections based on several inputs of the ECA partners. This plan recognizes that Los Alamos County load and demand projections are driven by population growth and commercial activity. The LANL load is driven by mission change and pace of operation.

The Power Pool will also need to accommodate additional electrical needs for new housing units in White Rock and apartment complexes in Los Alamos townsite. The pace of electrical vehicle adoption and additional electrification as people switch away from natural gas also need to be considered.



Los Alamos Power Pool Hourly Demand Summary, 2015-2020.  
Taken from the 2022 IRP, Exhibit 48.



Los Alamos Power Pool Peak Load Forecast.  
Taken from the 2022 IRP, Exhibit 57.

## Potential Concerns

Providing a reliable source of electricity is the overarching concern for both electrical production and electrical distribution. As more and more electrical providers switch to renewable sources, there may be periods where there aren't enough renewable sources to match load. This issue is exacerbated by the slow construction of renewable sources because of material availability and required labor needs. Going forward, production sources need to be balanced: bringing renewable sources online as fossil fuel sources are phased out.

Transmission line concerns affect both production and distribution. Existing transmission lines can only carry so much electricity. As conversions from gas to electric continue, the demand for more electricity will increase, putting strain on existing lines and forcing the need for additional transmission lines from electrical production resources. Sourcing transformers is a concern on the distribution-side of transmission lines. DPU is in the process of replacing transformers and, like most supply-demand issues currently, is having to delay the progress of this project because of the slow pace of the manufacture of transformers.

Another potential concern that can be alleviated with planning is the maintenance, both planned and unforeseen, that takes power production sources offline for a given period of time. While the DPU has a goal response time of 60 minutes, known as SAIDI (System Average Interruption Duration Index), the occasional issue can take longer to resolve.

# Electrical Resources and Supply Overview

## Renewables

One of the strategic objectives approved by the BPU is for the DPU to become a carbon neutral electric provider by 2040.

Current electric resources utilized by the DPU for the Power Pool and considered renewable/clean energy are the El Vado and Abiquiu hydroelectric facilities, the hydropower provided from the WAPA entitlement, and the East Jemez Landfill photovoltaic array. The energy supplied to Los Alamos County that comes from these renewable resources hovers around 20% annually.

Recently, the DPU entered into two power purchase agreements with Uniper Global Commodities to bring solar and wind energy to Los Alamos County. The first began delivering energy in January 2022. This agreement is for 15 MW of wind and solar energy over 15 years with a subscribed output of 76% renewable energy. The wind portion of this agreement is online, but the solar is delayed due to material shortages. The second agreement is for 25MW and will be delivered from October 2022 to June 2025. Any excess megawatts generated from the first agreement will roll over to be a part of the second agreement. The 25 MW agreement will have a subscription output of 26% renewable energy.

WAPA contracted resources are subject to having an updated conservation plan as well as a current IRP agreement. The IRP agreement, a planning tool to guide the ECA in providing for future resources, was negotiated and extended until the year 2057.

An additional Power Pool resource being pursued, and discussed more thoroughly in Part II, is:

- Carbon Free Power Project (CFPP): a power generation facility that utilizes small modular reactor technology. There is potential to receive up to 8.3 MW from this resource. The facility is scheduled to be operational by 2030 and will be sited at the Idaho National Laboratory.

---

## Non-Renewables

With the goal to become a carbon-neutral provider, the DPU is beginning to phase out its coal-powered resources.

The DPU is a partial owner in the San Juan Generating Station 4 near Farmington, NM. This station was planned to sunset at the end of June 2022. However, with the unavoidable delay in getting replacement renewable resources online and the timing of a power purchase agreement gap (Uniper coming online in October 2022), the BPU proposed to extend the San Juan agreement through the end of September 2022.

The DPU has a life-of-plant entitlement with the Laramie River Station in Wheatland, WY, with plant closure slated for 2040-2042. Opportunities continue to be sought for the DPU to capitalize on its long-term agreement by potentially swapping for renewable resources. In parallel, a negotiation for a hard exit, if an option exists, will be pursued in accordance with the BPU adopted goal.

# Gas Resources and Supply Overview

The DPU owns and operates its natural gas distribution system. The regional transmission pipelines are owned and operated by New Mexico Gas Company. There are two sources of supply available for Los Alamos County. From these regional lines, two stations supply Los Alamos townsite and one station supplies White Rock.

Fiscal year 2022 has an average customer base of 7,263 residential units and 430 commercial, municipal, or educational units. These numbers fluctuate for any number of reasons, including households moving, seasonal residents, and businesses changing spaces.

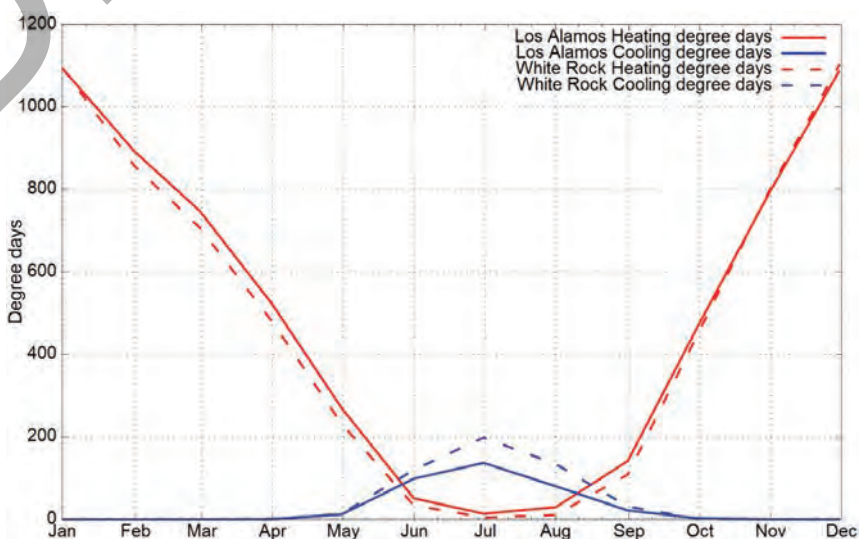
## Demand Projections

The DPU has an ultimate goal of eliminating natural gas use by 2070. Demand projections include the reduction of natural gas usage each year. While simple in concept, achieving these reduced projections in practice may be far more challenging. Gas consumption is only predictable at a base level—the amount customers might use to heat water and run appliances. Other uses, primarily heating buildings, are dependent on weather patterns and much less predictable. What may look like a solid success in one year could be followed by failure to meet the reduction in the next due to uncontrollable weather-related circumstances.

## Potential Concerns

There are few concerns with the gas supply specifically. Locally, freezing isn't an issue, and the risk of earthquakes damaging pipes is of low concern. However, supply issues from regional sources and systems can impact the Los Alamos system. For example, the failure of gas operations during the deep freeze in Texas in February 2021 caused a regional rate spike.

Another concern is related to the long-term elimination goal. As customers phase out natural gas usage in their homes, eventually gas rates will need to increase significantly for those still using natural gas to cover the DPU's cost of gas. This won't be obvious in the beginning, but it will cost the same to operate the natural gas system for 400 customers as it does 8000 customers. The DPU will need to plan for this transition.



Monthly average heating and cooling degree day (1991-2020).  
Taken from the LANL Climatology 2021 Update, Figure 5.

# Assessing Supplier Performance: Water

Water demand and consumption is tracked using a variety of metrics. All of the metrics rely on the base data pulled from the utility billing system, Munis.

## Leak Detection Surveys

A system leak detection survey is conducted on a 5-year cycle. 20% of the total system is targeted annually. Each year a different part of the system is surveyed, and the leaks are classified into three categories: Class 1-3. Class 1 leaks are deemed hazardous and could result in damage to the utilities. Class 2 leaks display water losses significant enough to be monitored on a regular repair schedule. Class 1 and 2 leaks are repaired immediately. Class 3 leaks are relatively small and are repaired as workloads permit.

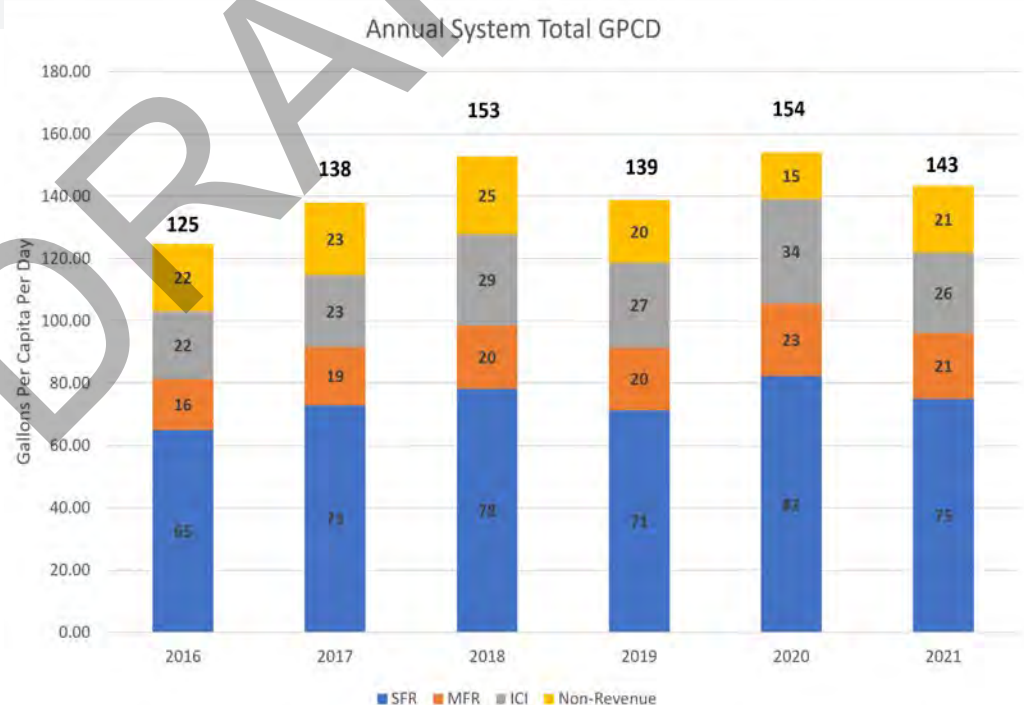
## Gallons Per Capita Per Day

The NMOSE's Gallons Per Capita Per Day (GPCD) is a spreadsheet calculator completed and submitted annually to the NMOSE as a compliance piece for Los Alamos County water rights. This spreadsheet will be used to compare the County's water consumption with other communities in the southwest to help develop water conservation goals.

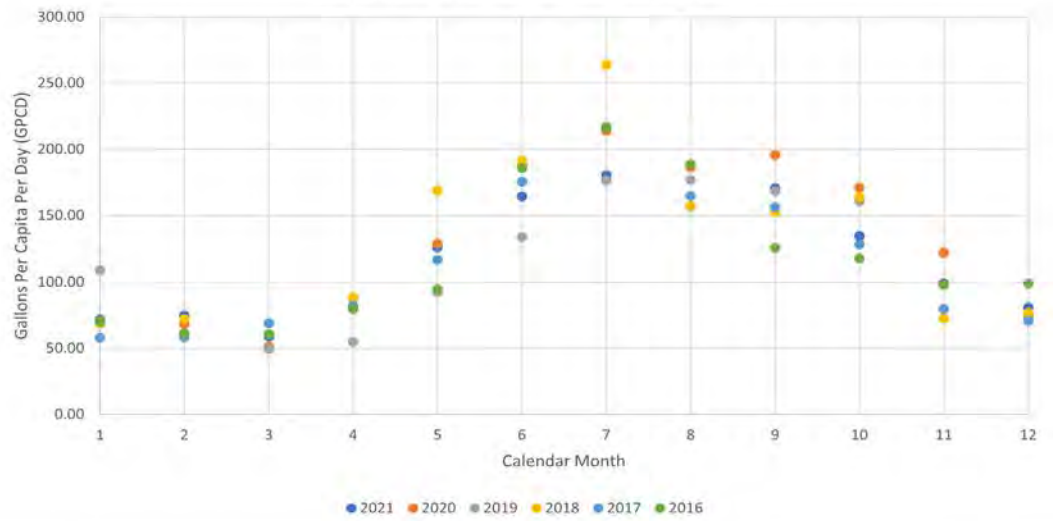
The GPCD charts in this plan report on the years 2016 to 2021.

Household data is pulled from

the 2010 Census. 2020 Census data was not released at the time of the 2021 GPCD update. Average household size for the reporting period is determined, by Census data, to be 2.33 persons. The populations for Single Family Residence (SFR) and Multi-Family Residence (MFR) are calculated using average household size multiplied by the number of connections associated with each customer category. GPCD for each category is formulated by dividing class consumption by class population. All values are auto-calculated in the NMOSE GPCD spreadsheet.



Single Family Residence Monthly GPCD



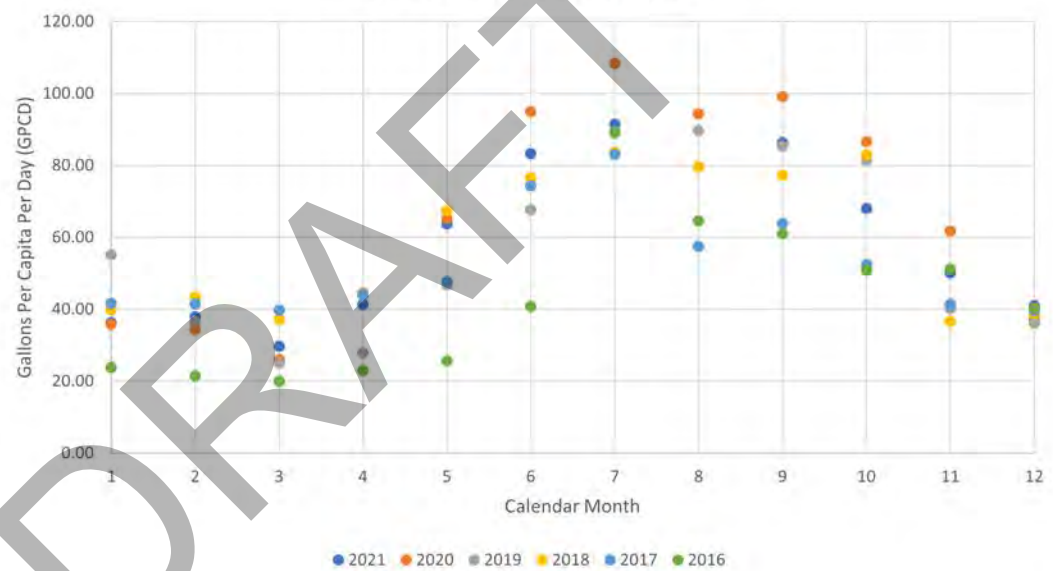
Lower Left: Los Alamos County total system annual Gallons Per Capita Per Day broken down into customer class and Non-Revenue water.

This page: Charts compiled from the NMOSE GPCD calculator. The top chart graphs the GPCD of Single Family Residences while the middle graphs the GPCD of Multi-Family Residences. The bottom chart graphs all commercial, municipal, and educational facility (referred to as "Industrial, Commercial, Institutional by the calculator) GPCD.

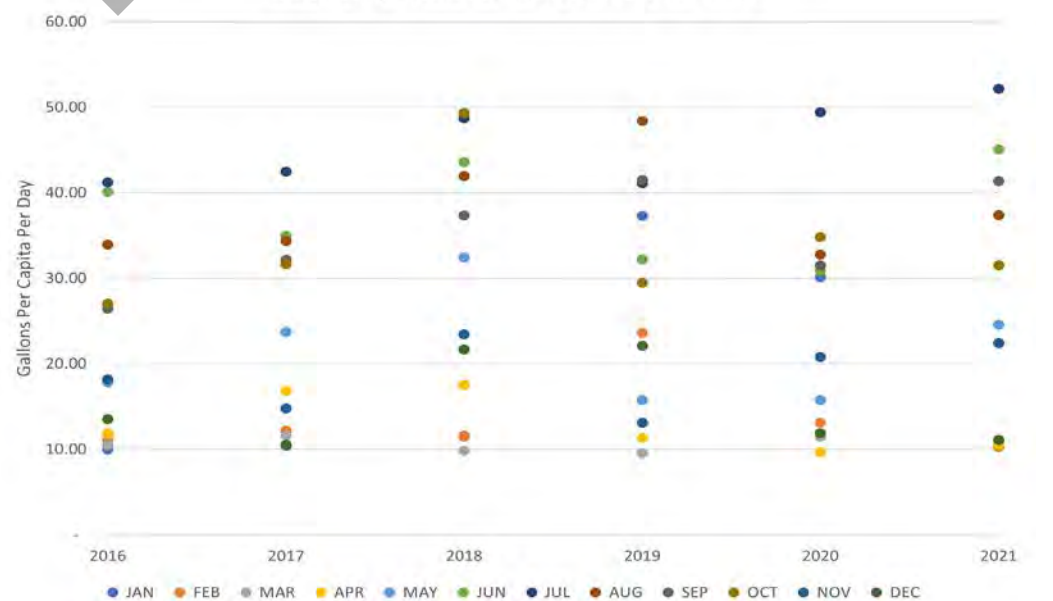
These values are for all of Los Alamos County and are not broken into community. More information on the difference between the two communities can be found in Part II, Goal 5.

Monthly total system GPCD for 2016 - 2021 can be found in Appendix 1 of this plan.

Multi-Family Residence GPCD



Industrial, Commercial, Institutional GPCD





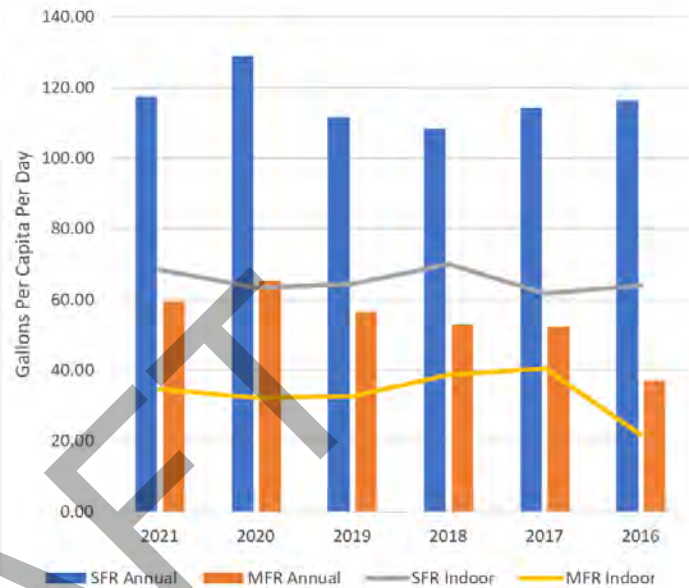
# Assessing Supplier Performance: Water

## Indoor GPCD

Using the GPCD calculator, indoor and outdoor water usage can be estimated. Indoor water consumption is calculated by averaging the three months - of the four winter months between December and March - with the lowest water use. Indoor GPCD is graphed with the annual GPCD for these two customer classes.

## Outdoor GPCD

While reducing indoor water use is a common water conservation strategy, outdoor water use is a significant percentage of total water usage. This is expanded more in Part II, Goal 5 of the conservation program. Outdoor GPCD is calculated by subtracting the average monthly indoor GPCD from the total monthly GPCD. The charts below provide a detailed monthly breakdown of GPCD during peak water-use months (May to September). It is important to notice the difference in scales between these two charts.



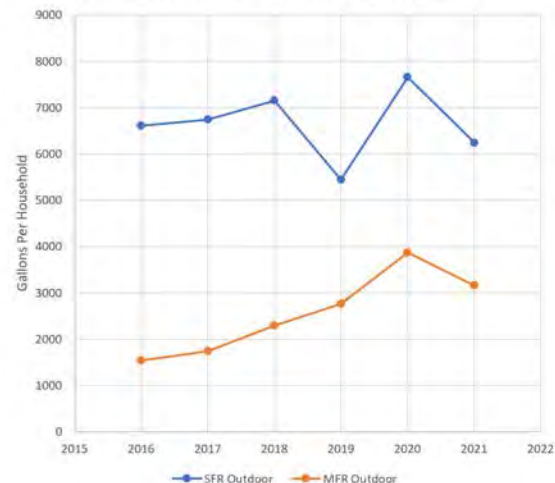
MFR Outdoor GPCD



SFR Outdoor GPCD



Estimated Outdoor Water Use: May - September



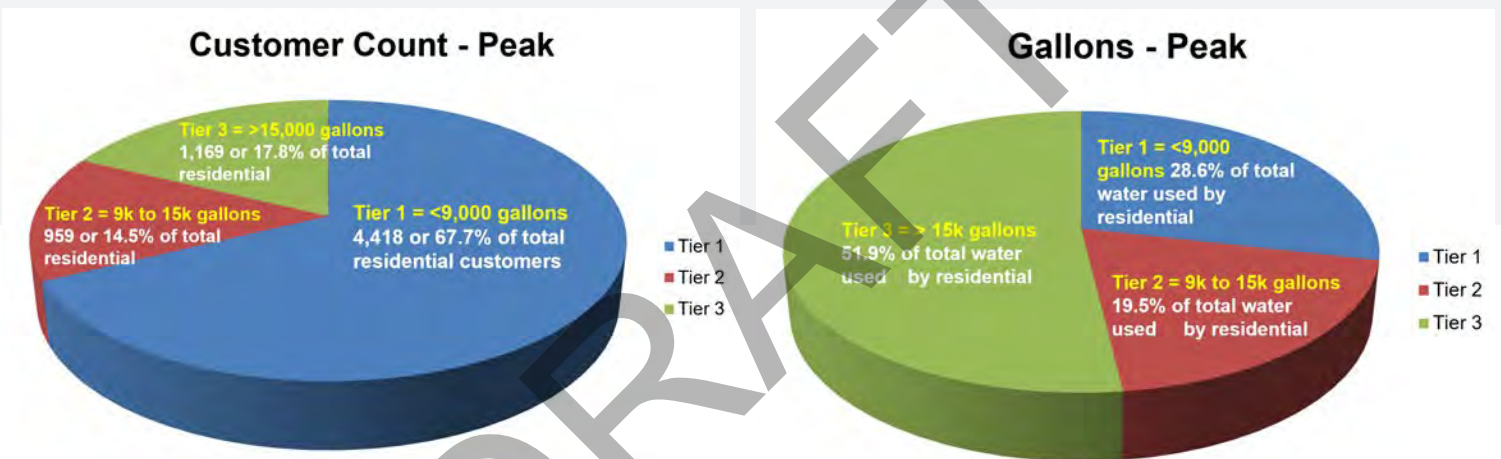
Alternatively this line graph displays outdoor water usage in gallons per household instead of GPCD because outdoor water usage is irrelevant of the number of household occupants.

## Outdoor Water Usage

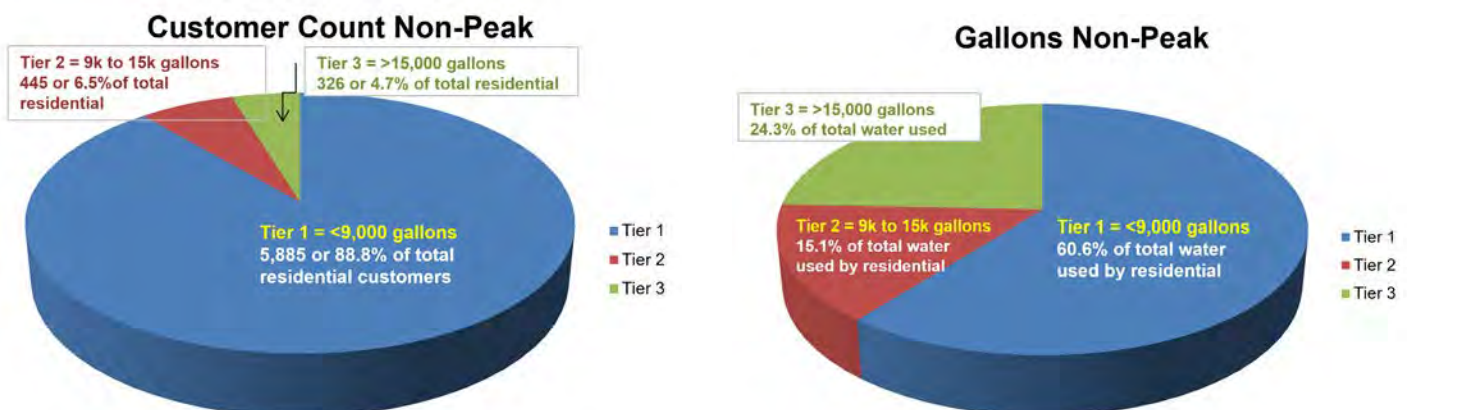
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Los Alamos	8,167	7,138	8,227	7,362	4,963	3,815	4,285	3,833	2,861	3,575	5,914	8,534
White Rock	10,182	13,189	12,246	11,332	6,447	4,410	5,014	2,954	3,565	4,378	8,252	11,078

FY2019-FY2021 average monthly water consumption per household, in gallons, for residential customer class. Note the significant increase of water usage for White Rock during peak water months (May through September).

All customer classes can take advantage of outdoor conservation measures. However, the “residential” customer class is likely to see significant benefits, especially when it comes to outdoor water use. Because there is typically only one meter servicing a household unit, outdoor water use can only be estimated and assumed. The following pie charts are 2019-2021 averages of Residential Water Usage. Peak season is May through September. Non-peak season in October through April. The DPU has a tiered water rate and there is a significant shift in usage between peak and non-peak seasons.



In this dataset, Tier 3 consumers represent 18% of households using 52% of the total water during peak season compared to Tier 3 representing 5% of households using 24% of total water during the non-peak season. Outdoor spaces like lawns and gardens use a lot of water and is a priority target area for reducing potable water consumption.





# ADDENDUM

## Assessing Supplier Performance: Water

### Utilities Water Audit

The American Water Works Association (AWWA) Water Audit is a requirement of the NMOSE to standardize a method of auditing water utilities when calculating the percentage of non-revenue water. The AWWA Water Audit tracks water from the point of withdrawal, or treatment, all the way through to the point of delivery to the customer.

Two of the important figures this audit helps to identify, which the DPU can then work to reduce, are apparent losses and real losses. Apparent losses include all types of inaccuracies associated with metering, data handling errors, and theft of water. Real losses are breaks or leaks in the water system on the supplier side on to the point of customer consumption. Below are results from the 2020 and 2021 (inside red box) audits. The Water Audit Data Validity Score (a measure of the reliability of available data provided in the audit) is the same for both years.

\*\*\* YOUR WATER AUDIT DATA VALIDITY SCORE IS: 72 out of 100 \*\*\*

		2020	2021	
<b>System Attributes:</b>				
	Apparent Losses:	21.840	20.429	MG/Yr
+	Real Losses:	122.499	106.564	MG/Yr
=	<b>Water Losses:</b>	<b>144.340</b>	<b>126.993</b>	MG/Yr
?	Unavoidable Annual Real Losses (UARL):	46.75	46.74	MG/Yr
	Annual cost of Apparent Losses:	\$126,456	\$122,983	
	Annual cost of Real Losses:	\$709,270	\$641,512	Valued at Customer Retail U
<b>Performance Indicators:</b>				Return to Reporting Worksheet to chang
Financial:	Non-revenue water as percent by volume of Water Supplied:	15.7%	14.9%	
	Non-revenue water as percent by cost of operating system:	5.9%	3.9%	Real Losses valued at Customer
Operational Efficiency:	Apparent Losses per service connection per day:	8.41	7.87	gallons/connection/day
	Real Losses per service connection per day:	47.18	41.06	gallons/connection/day
	Real Losses per length of main per day*:	N/A	N/A	
	Real Losses per service connection per day per psi pressure:	0.73	0.63	gallons/connection/day/psi
	From Above, Real Losses = Current Annual Real Losses (CARL):	122.50	106.56	million gallons/year
?	Infrastructure Leakage Index (ILI) [CARL/UARL]:	2.62	2.28	

\* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline.

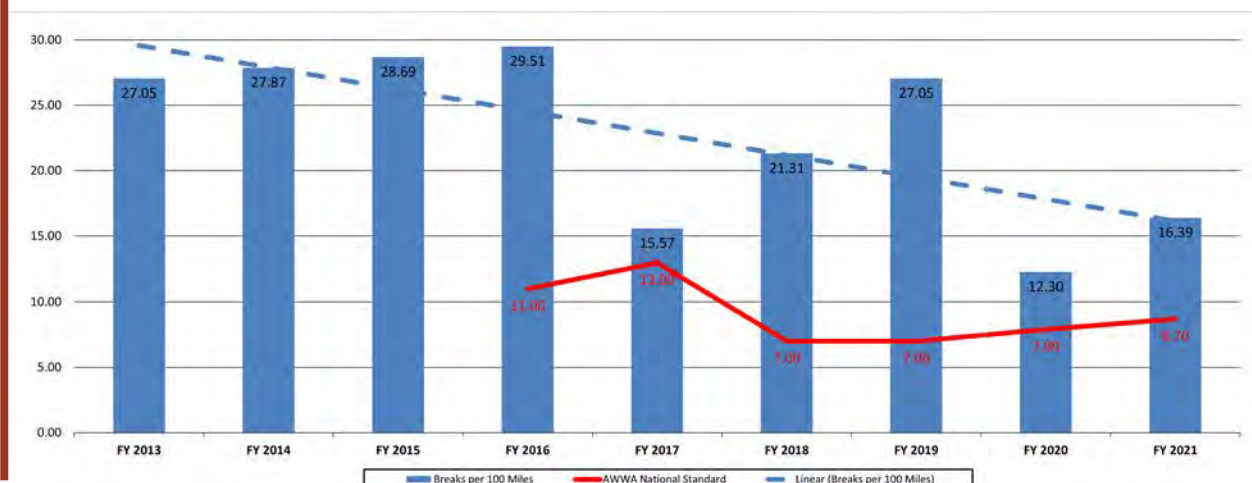
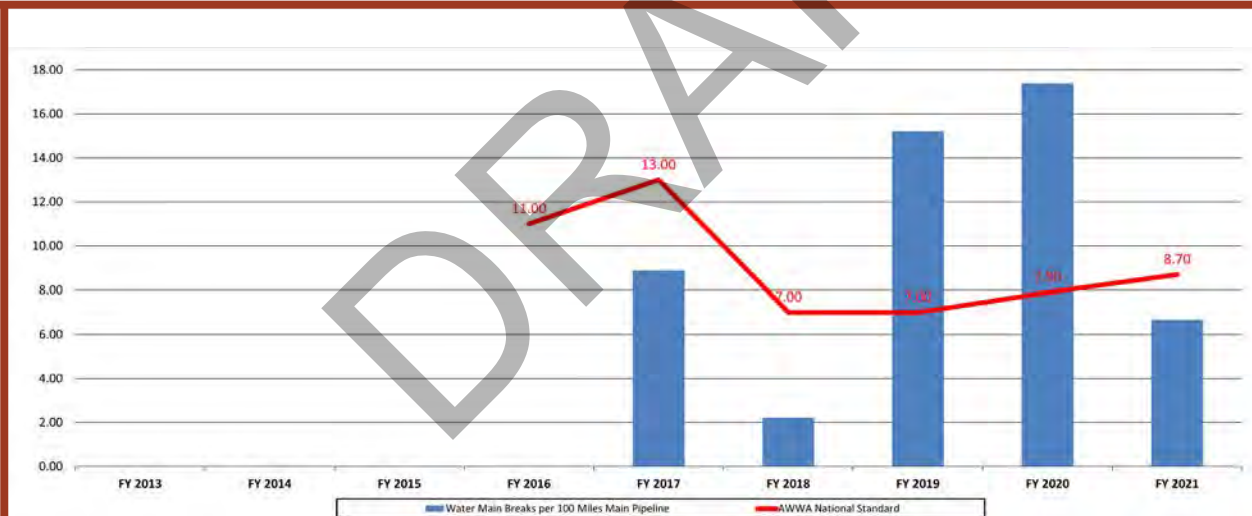
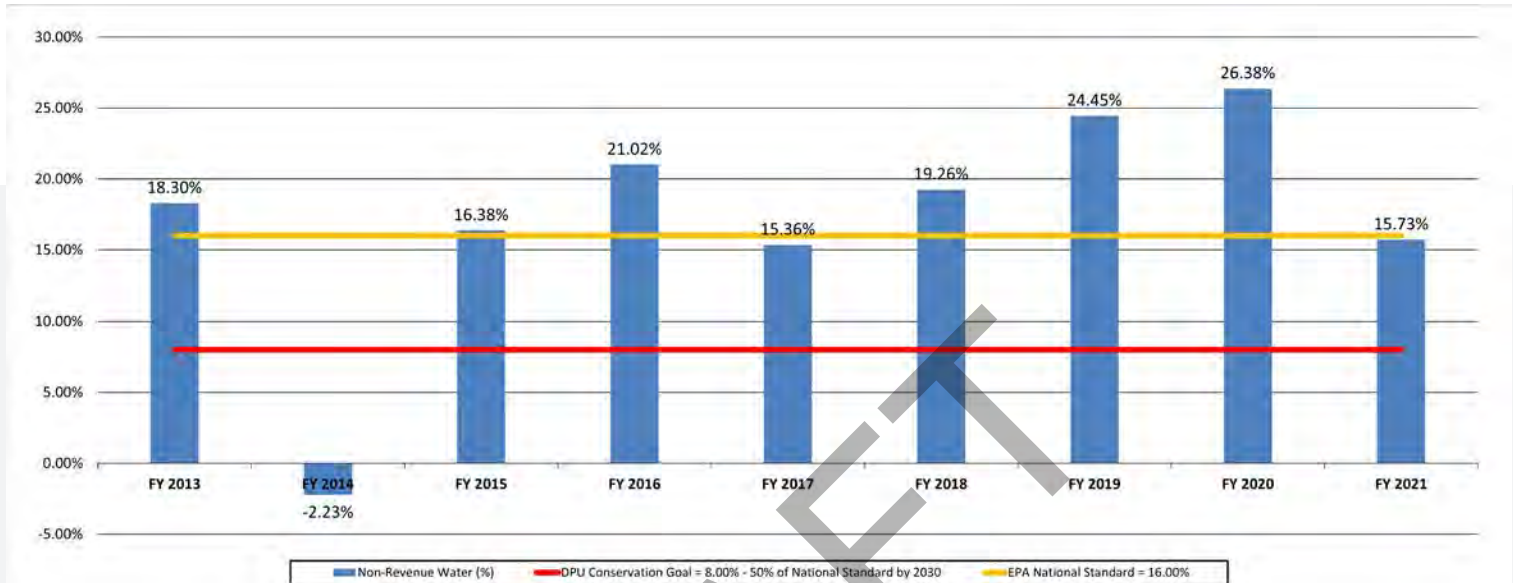
"Apparent Losses" decreased from 2020 to 2021 and this is in part to the installation of the advanced metering system on all water meters, which allow for leaks to be detected sooner and meters to provide more accurate readings. Additional guidance is provided within the AWWA Water Audit to decrease the DPU's non-revenue water and subsequent cost to the system, presented in the table below.

Audit data collection	Short-term loss control	Long-term loss control	Target-setting	Benchmarking
Refine data collection practices and establish as routine business process	Refine, enhance, or expand ongoing programs based upon economic justification	Conduct detailed planning, budgeting, and launch of comprehensive improvements for metering, billing, or infrastructure management	Establish mid-range (5 year horizon) apparent and real loss reduction goals	Performance Benchmarking -Infrastructure Leak Index is meaningful in comparing real loss standing

# ADDENDUM

## Tracking Non-Revenue Water

Below are examples of internal dashboards used to track water. Note, these dashboards are tracked per fiscal year, while the AWWA audit is tracked per calendar year. The graphs below help show sources of non-revenue water in terms of breaks and leaks in the water production system (middle chart) and in the water distribution system (bottom chart). The system graphs are percentages within 100 miles of pipeline and should not be taken to add up to the non-revenue water percentage.



# Assessing Supplier Performance: Electric

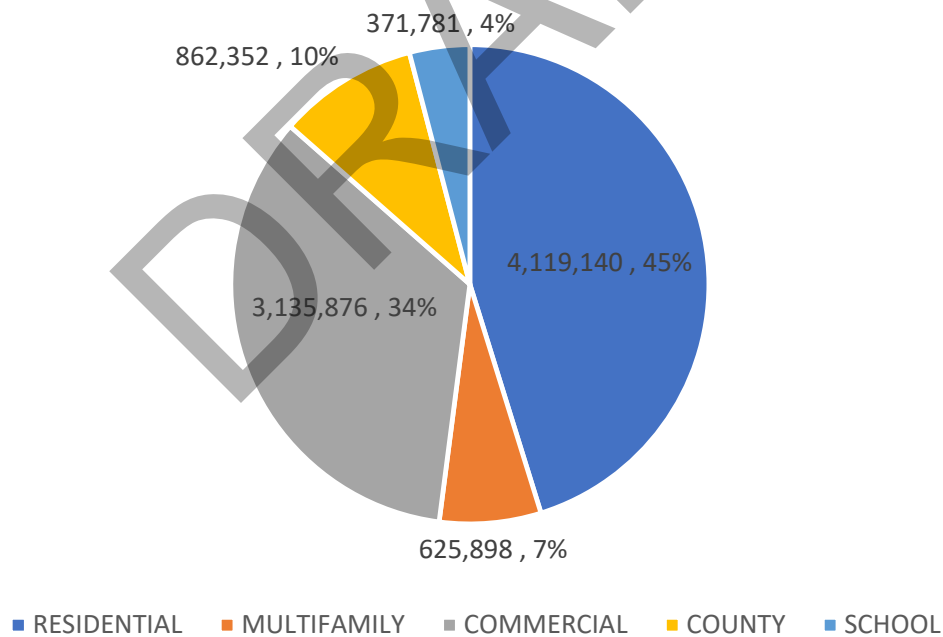
Electrical performance is tracked differently for power supply and electric distribution.

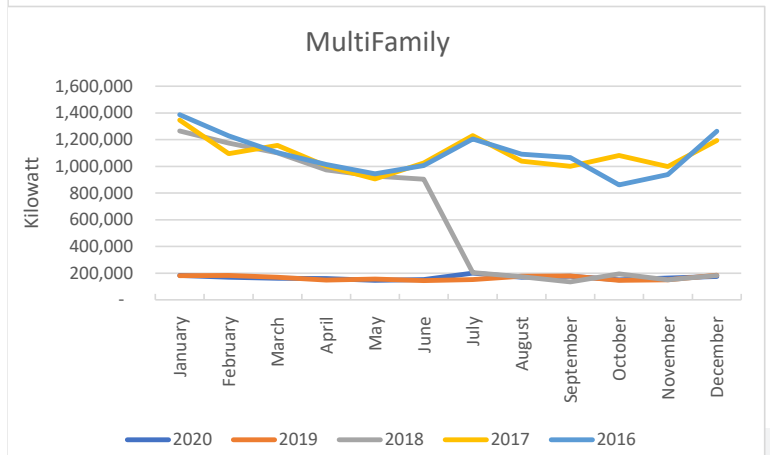
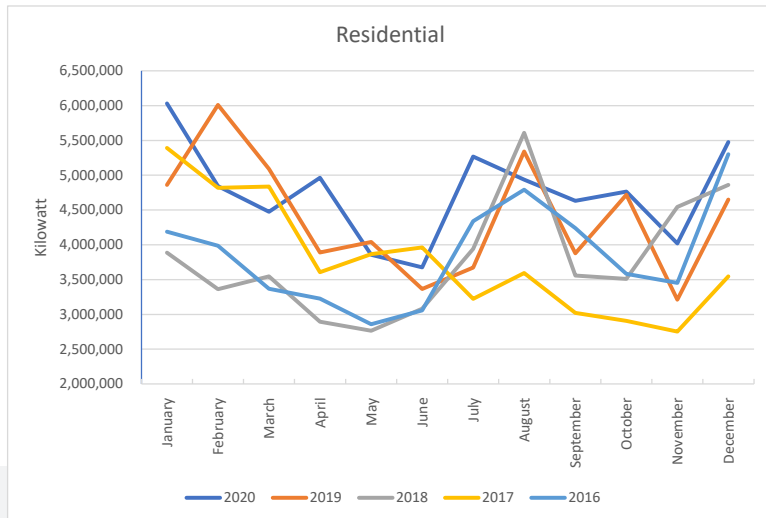
Power supply uses internal spreadsheets that calculate demand and losses. Losses are handled financially.

Electric distribution is tracked primarily through Munis and the consumption reports created using its data.

Below is a pie chart showing the 5-year (2016-2020) average of electrical consumption by customer class. This is an example of one of the consumption charts created through Munis.

Electrical Consumption by Customer Class,  
5 Year Average





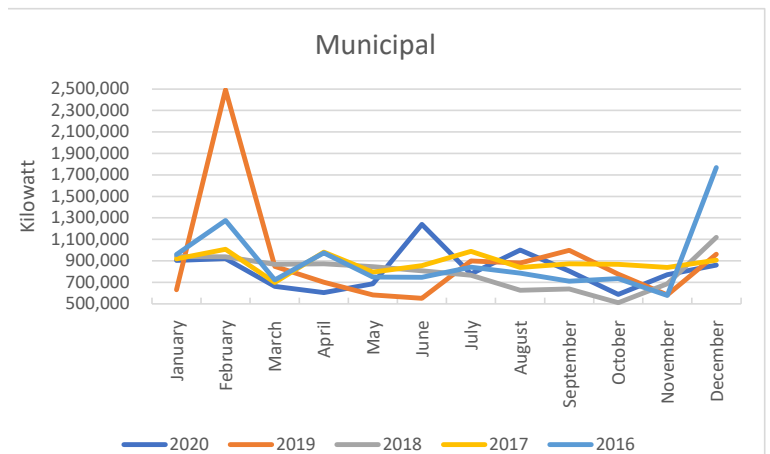
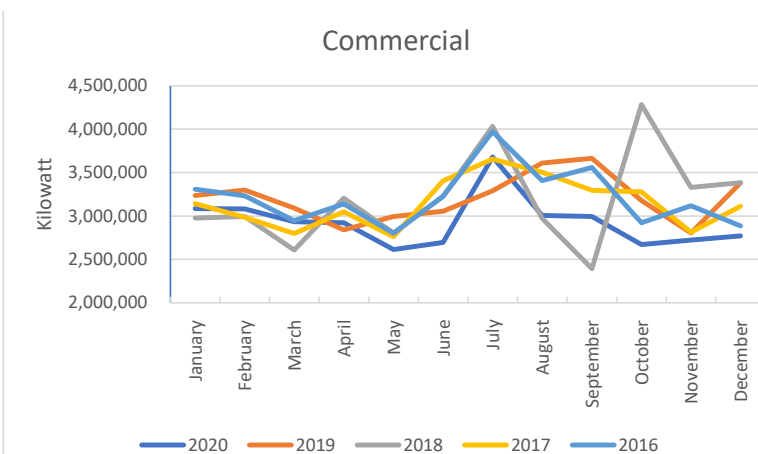
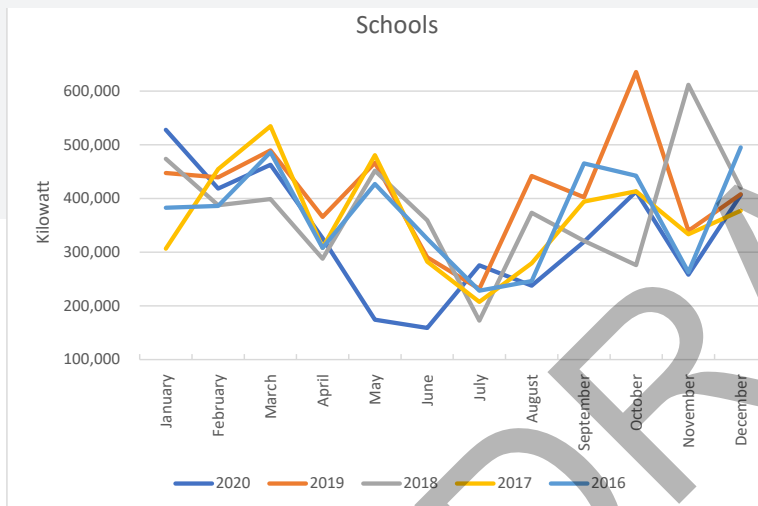
Listed are the consumption charts for each customer class for the last 5 years.

No data collection, tracking, and reporting method is without flaws, but by knowing and understanding the general usage of each customer type, outliers can be identified and determined if it was indeed a change in usage or an issue with data collection and metering.

For example, the DPU switched to the Munis system in July 2018. The Munis system categorizes the definition of "MultiFamily" differently than the previous system. Notice the drop in MultiFamily usage in July 2018 and the uptick in usage for Residential in July 2018 and beyond.

A non-Munis fluctuation is shown with the schools. Electricity usage drops dramatically in March 2020 through June 2020 as the schools were closed due to the COVID19 pandemic.

The Commercial and Municipal spikes in late 2018 and early 2019, respectively, are related to meter reading and billing issues are because of the Munis switch over.

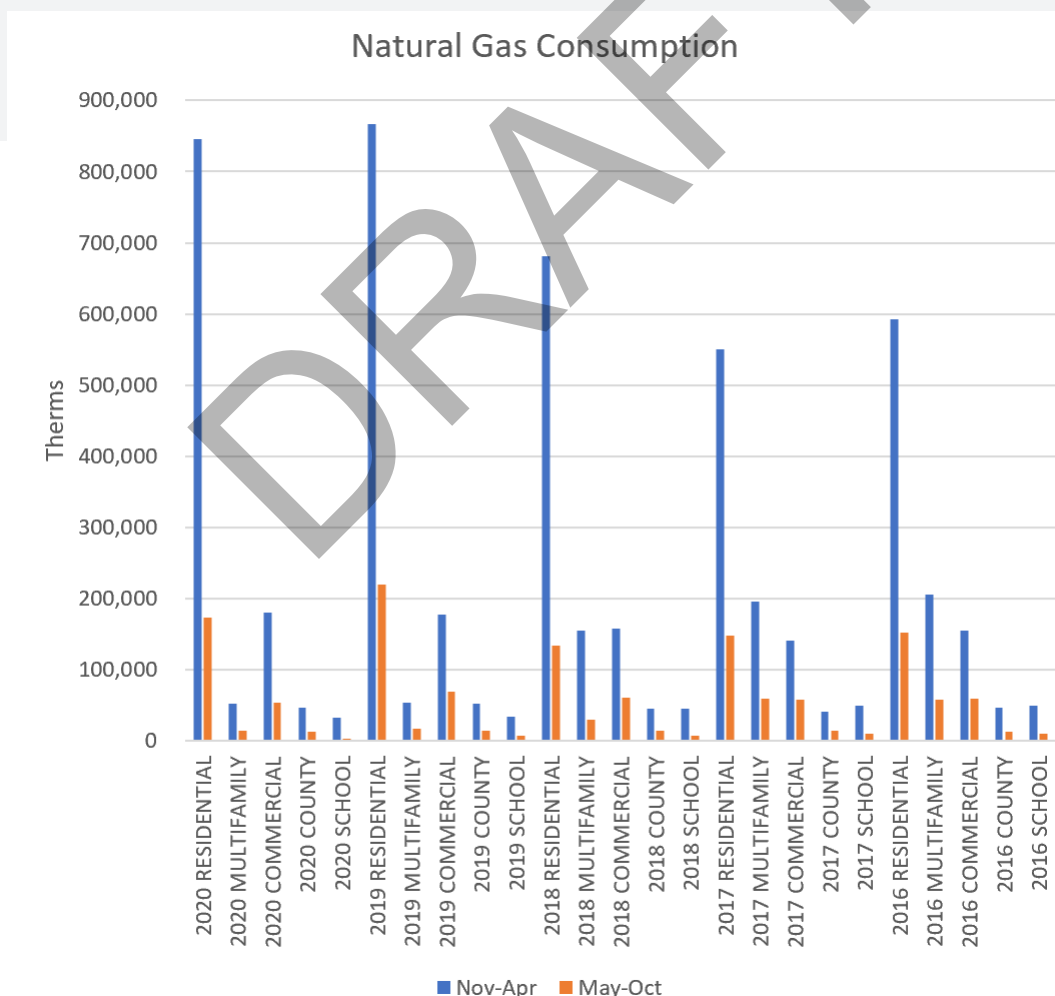


# Assessing Supplier Performance: Gas

Gas performance metrics are tracked in the DPU's Gas, Water, Sewer internal gas dashboard in addition to the customer consumption monitored through Munis.

The gas industry requires extensive monitoring and reporting. Some examples include:

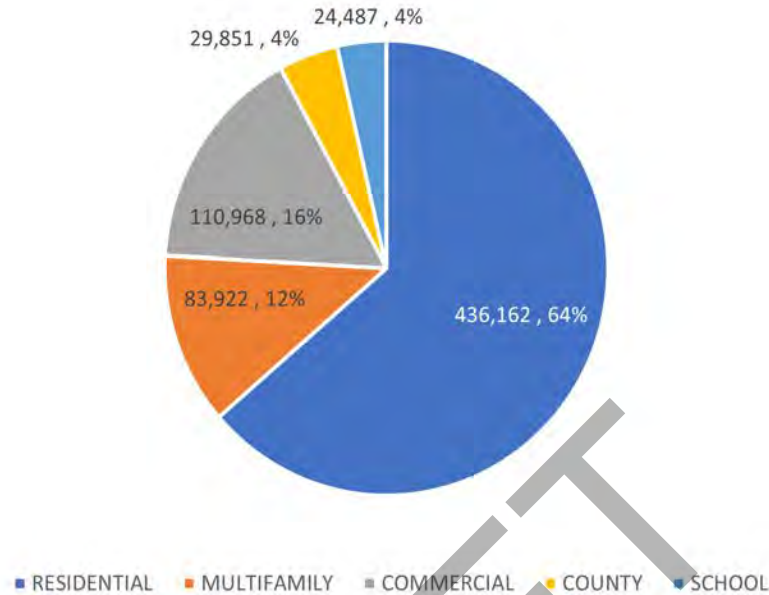
- An annual gas report submitted to the US Department of Transportation, which discusses pipe material and length as well as damage to and leaks in the natural gas delivery system.
- An annual greenhouse gas report submitted to the US EPA covering emissions relating to natural gas consumption.



Natural gas consumption by customer class and grouped into months typically needing a heating source (Nov-Apr) and months typically needing low or no heating (May-Oct).



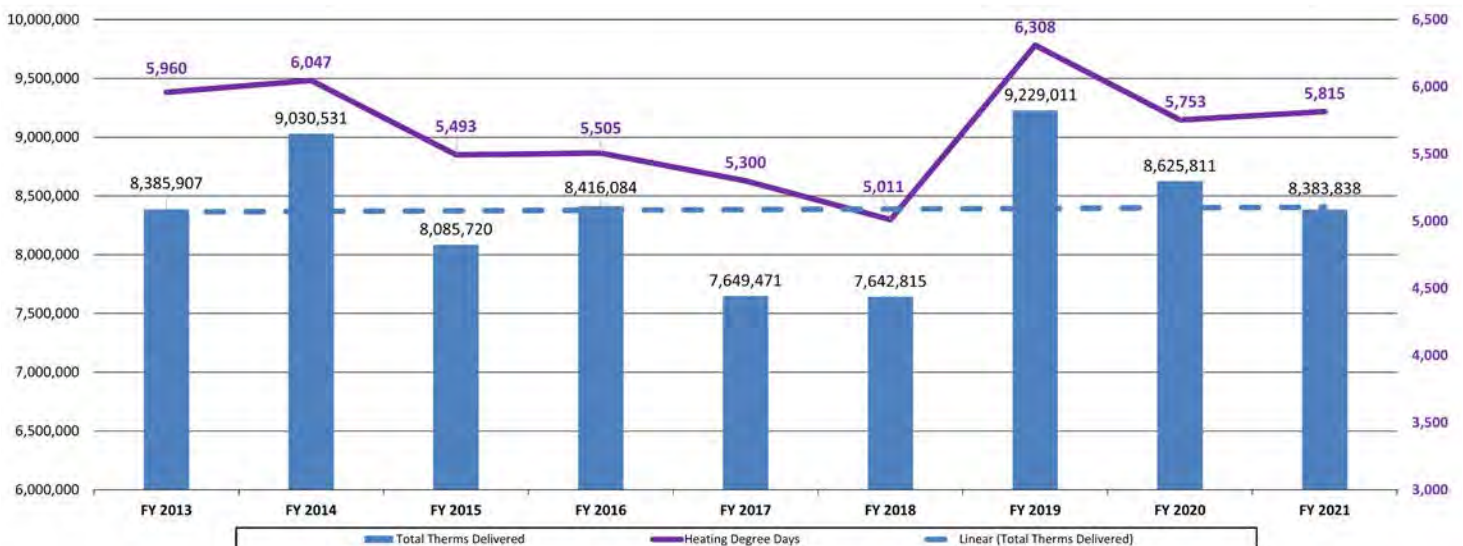
## Natural Gas Consumption by Customer Class, 5 Year Average



	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total Average
Los Alamos	20	17	17	28	69	114	145	149	128	84	48	29	71
White Rock	18	15	15	19	55	117	151	155	123	77	43	25	68

The above pie chart is a 5-year average (2016-2020) of natural gas consumption for each customer class tracked within Munis. Figures are reported in therms and percentage of total. The table is a representation of residential monthly gas consumption between Los Alamos and White Rock. It is a monthly average from FY2019-FY2021.

The complex chart below shows the total therms delivered each Fiscal Year. This chart helps to show that natural gas fluctuates with Heating Degree Days (HDD) and is a good indicator that a significant number of furnaces within Los Alamos remain natural gas fueled.



Therms delivered with heating degree days, taken from DPU internal dashboard.

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# ADDENDUM

## Part II

### Water and Energy Conservation Program

# ADDENDUM

# Water and Energy

## Conservation Program

### Overview

The DPU Water and Energy Conservation Program (WEC Program) is facilitated by a full-time staff member, the Conservation Coordinator, who is responsible for implementing and tracking progress (success/failure) of the components of the WEC Program. The Conservation Coordinator will partner where and when appropriate. This revision focuses on conservation goals over the planning period 2022-2027.

#### Prioritizing Goals

The priorities of the WEC Program are organized and outlined in this conservation plan, which is a dynamic document driven by the DPU strategic goals and influenced by public input, whether through committees, surveys, or comments from a variety of channels. The BPU reviews strategic goals annually and revises objectives based on emerging technologies, community priorities, and progress within each objective. Because the DPU provides all utilities to Los Alamos County, the WEC Program is slightly different from other conservation plans in that it's broader than a typical water conservation plan or an energy efficiency plan. The BPU decides on five or six utility-specific conservation objectives instead of overexerting resources by choosing too many objectives for each of the provided utilities.

For Los Alamos County to achieve the maximum conservation of utilities, efforts need to come from both the supplier (DPU) and the demand-side (Customer). The following pages focus on each of the strategic goals, ranked from highest to lowest priority, as determined by the BPU. Within each section, projects, programs, and best management practices will be discussed as pertaining to the DPU and to the Customer.

Fiscal Year 2024 strategic goals and objectives were approved by BPU on September 13, 2022.

The strategic objectives (primarily from Goal 5.0 – Achieve Environmental Sustainability) in order of highest priority to lowest priority, as determined by the BPU, are as follows:

1. Provide Class 1A effluent water in Los Alamos County.
2. Promote electric efficiency through targeted electric conservation programs.
3. Be a carbon neutral electric provider by 2040.
4. Reduce natural gas usage by 5% per capita per heating degree day by 2030 and support elimination of natural gas by 2070.
5. Reduce potable water use by 12% from 143 gallons per capita per day (2020 calendar baseline) to 126 gallons per capita per day by 2030.
6. Communicate with stakeholders to strengthen existing partnerships and identify new potential mutually beneficial partnering opportunities (from Goal 6.0 – Develop and strengthen partnerships with stakeholders).

# ADDENDUM

Actions within each goal have been prioritized based on feedback from an update committee formed in 2020 as well as implementation ability (feasibility and readiness).

## Previous Conservation Program

The previous conservation program provided conservation goals for the planning period 2015-2019. Shortly after the plan was adopted, the position of Conservation Coordinator became vacant. The DPU fulfilled much of the conservation initiatives with the education and outreach contract with PEEC. Summaries of utility-specific conservation practices of this previous program will be discussed in each subsequent section.

## Current Program Goal Support

Goals within each utility are additionally supported by the following plans, studies, and committees:

### Water

Jemez y Sangre Regional Water Plan, 2016 (see updates to selected projects in Appendix 6)  
Los Alamos County Long-Range Water Supply Plan, 2017  
Los Alamos County Non-Potable Master Plan, 2013  
DPU Conservation Plan Update Committee, 2020  
Los Alamos County Comprehensive Plan, 2016

### Electric

DPU Conservation Plan Update Committee, 2020  
Electric Reliability Plan, 2021  
Integrated Resource Plan, 2022

### Gas

DPU Conservation Plan Update Committee, 2020  
Environmental Sustainability Plan, 2017

## Evaluation

Measures of success are evaluated annually by the BPU to determine changes in goals. These include:

- compliance pieces (AWWA audit, GPCD spreadsheet, unaccounted for gas, greenhouse emissions)
- cost effective returns (is induction program encouraging changes)
- ability (for example, DPU cannot currently provide rebates/incentives directly)
- budget
- priorities (is there an emerging issue to address sooner)

Quarterly and annual reports are produced to convey projects, programs, etc. to customers.

Note: The WEC Program promotes conservation to the customer primarily through voluntary compliance. There is currently no regulatory enforcement of any practices, aside from rate changes.

# ADDENDUM

## Program Targets

	2023	2024	2025	2026	2027
Education and Outreach	Bill inserts @12/yr				
	Quarterly talks @4/yr				
	New Conservation Ed/Outreach Contract (until 2030)				
	Commercial Efficiency Program				
	APWA Accreditation				
WATER	Reduce non-revenue water				
	White Rock WRRF Const.		WRRF Tours		
	LA filter upgrade				
	2% sewer rate inc.	2% sewer rate inc.	2% sewer rate inc.	2% sewer rate inc.	
	Water Rule W-8				
	5% water rate inc.	5% water rate inc.	5% water rate inc.	5% water rate inc.	
	Toilet retro research		Toilet rebate, if feas.		
	Xeriscape Program				
	Reservoir Restoration		Non-Potable Water Master Plan projects		
		Bayo Tank Const.			
GAS	Promote gas efficient and gas alternative appliances				
	IRA rebate/incentives for electrification of heating/cooking				
	2%+ gas rate inc.	2%+ gas rate inc.	2%+ gas rate inc.	2%+ gas rate inc.	
	Meter replacement				
	Electric rate study				
	Investigate power technologies				
ELECTRIC	SJGS Exit	Solar options		Carbon Free Power Project	
	IRP update		ECA		
	Install EV charging	EV cohort?			
Promote Electric Efficiency	Building energy code update		IRA rebate/incentives for electrification of heating/cooking		
	Promote technologies with demos				
	Smart Energy Provider	Rebate possibility-UAMPS			
	Energy efficiency kits				
	Library program trial				
Evaluation and Compliance	AWWA Audit	AWWA Audit	AWWA Audit	AWWA Audit	AWWA Audit
	GPCD	GPCD	GPCD	GPCD	GPCD
	Gas Leak Survey	Gas Leak Survey	Gas Leak Survey	Gas Leak Survey	Gas Leak Survey
	Strat. Plan	Strat. Plan	Strat. Plan	Strat. Plan	Strat. Plan
	Public Input		Public Input		Public Input

# ADDENDUM

## Education and Outreach

### Overview

In the 2022 Voice of the Customer Survey, conducted between January 4 and February 9, 2022, it was determined that customers gave DPU a poor rating on “helping customers conserve electricity, gas and water.” Education and outreach are critical components in promoting conservation. To avoid redundancy, several education and outreach deliverables are listed here and will apply to each of the goals that follow. This list is not exclusive as education will happen as opportunities present themselves.

DPU’s current Conservation Education and Outreach contract expires in February 2023. Bids are being evaluated for a new contract to begin in February/March 2023.

### Public Information

*Audience: DPU Customers, 9000*  
*Target timeline: Monthly*

Each month, the DPU includes information with the mailed utility bill. Sometimes these are seasonal topics (e.g., gas safety as winter sets in, saving water in the summer months, etc.) and sometimes they are programmatic in nature (enrolling in the new Automated Metering Self Service portal). The Conservation Coordinator has a goal to include a conservation-themed insert each month. Close to 9,000 customers receive a paper bill, and thus, the inserts. All bill inserts are also placed on the DPU’s website for easy viewing and for those that receive electronic billing statements. A social media campaign for Facebook and Twitter is coordinated with each insert topic to provide additional information to our customers. See an example in Appendix 5.

### Outreach Events

*Audience: Public, 1000/year*  
*Target timeline: Quarterly*

The DPU will enhance its presence in the community by attending different events that occur throughout the year to promote relevant programming and outreach efforts. Such events include:

- Earth Day: once a year, April
- Farmer’s Market: every Thursday, May – October
- ChamberFest: once a year, June
- ScienceFest: once a year, July
- Los Alamos Fair and Rodeo: once a year, September
- WinterFest: once a year, December
- Meetings can include Rotary Club, Kiwanis, Habitat for Humanity, etc.

	Attendance	Program Spending
2021	6150	\$34,574
2020	4829	\$37,205
2019	10,647	\$35,760
2018	9311	\$46,565
2017	7505	\$40,257
2016	3900	\$35,720

*PEEC programming outcomes (incl water festival)*

### School Programs

*Audience: Youth, 4000/year*  
*Target timeline: School year with some summer activity*

Currently, the DPU has a contract with Pajarito Environmental Education Center (PEEC) to do educational programs both in school settings and for the public. PEEC does an excellent job of gearing school programs to current DPU projects. The Conservation Coordinator will also engage in the classroom to enhance promoting conservation in the schools.

Program topics include: The Water Cycle, Water-Wise Gardening, Water Infrastructure, Electricity and Magnetism, Energy Sources, and the Water Festival, among many others.

# Water ADDENDUM

## Overview

The 2015-2019 conservation program was guided by the following water-centered goals:

**Goal 1. Decrease water consumption by 12% by 2050.** This goal was a recommendation from the 2006 edition of the Long-Range Water Supply Plan and was adopted by the BPU.

a. Priorities to achieve this goal – from public input

i. Increase water conservation education and outreach

- Update: DPU contracted with PEEC to provide student and community education and outreach for a period of 7 years (2016-2023).
- 2022 Update: Automated meters have been installed for all utilities on almost all customer accounts (unless opted-out) between 2020-2023. These meters provide hourly consumption data to customers via an online portal. Data is available for a three-year period and can be exported by the customer to keep for future reference.

ii. Residential irrigation audits and Commercial water audits

- Update: Conservation Coordinator was trained in water audits and performed a handful for community businesses.
- 2022 Update: water audits are on hold until current Conservation Coordinator can be appropriately trained. Coordinator can offer to review water consumption trends in metering system in the interim.

iii. Improve Water Rule W-8 with enforcement (adopted in 2005)

- Update: W-8 continues as an encouraged, voluntary program. The program was never enforced.

b. Other priorities

i. System leak detection surveys

- Update: ongoing at 20% of system evaluated annually.

ii. Water rates

- Update: water rate change in 2017, 2019, and 2022.

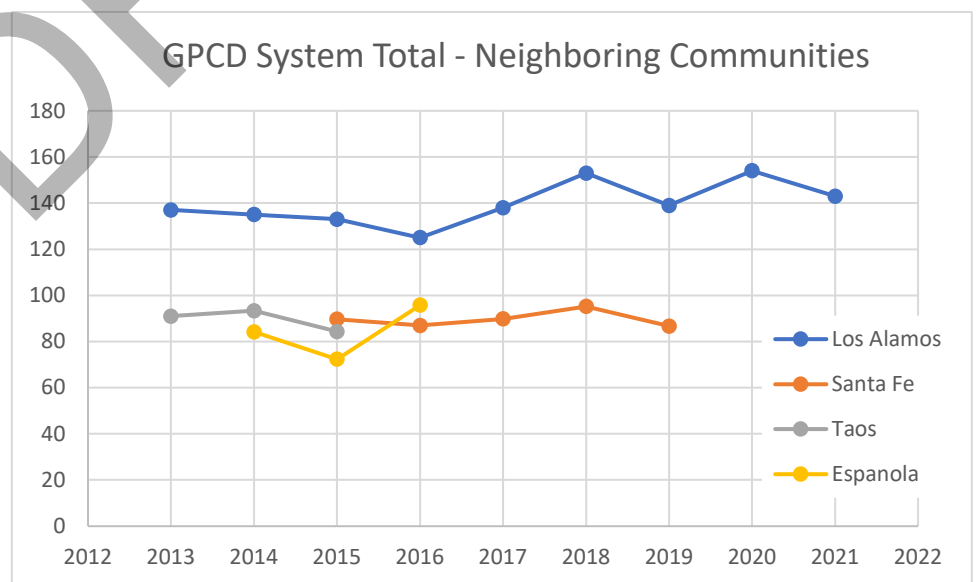
c. Success toward goal up to 2021 plan revision:

i. This goal was initially met in in 2014 when comparing diversion data, per the 2017 Long-Range Water Supply Plan (page 68).

ii. A more aggressive goal was set for FY2017 with a 2016 baseline.

iii. This goal was again revised and adopted in FY2021 with a 2020 baseline to achieve a GPCD of 125.84 by 2030.

**Goal 2. Conservation efforts should be focused on single family residential homes and multi-family customer class.** This goal was determined by the NMOSE GPCD spreadsheet and using the GPCD methodology will allow the DPU to evaluate consumption against surrounding communities and adjust goals accordingly.



The 2022-2027 conservation program focuses on the following water-centered goals:

1. Provide class 1A effluent water in Los Alamos County.
2. Reduce potable water use by 12% from 143 gallons per capita per day (2020 calendar baseline) to 126 gallons per capita per day by 2030.



# ADDENDUM

## Goal 1: Provide Class 1A Effluent Water in Los Alamos

Class 1A Effluent is the highest classification of wastewater/reclaimed water.

Per a strategy identified in the Jemez y Sangre Basin Regional Water Plan, Los Alamos County is upgrading its two wastewater treatment plants to operate at the highest classification currently available. This will help protect our existing water sources by more efficiently processing wastewater and reducing trace contaminants from effluent. Because effluent from both plants is used as reclaimed irrigation water, upgrading the filtration and treatment systems would allow flexibility in irrigation schedules and more efficient use of the reclaimed water.

### Upgrade Los Alamos Wastewater Treatment Plant

Audience: DPU  
Target timeline: 2023  
Funding: \$3.5 million  
Water Trust Board Funding, Capital Budget

Tertiary filtration equipment is being added to the Los Alamos Wastewater Treatment Plant (WWTP), which will upgrade its effluent classification from 1B to 1A. This project is moving along with the hinderance of increased cost of work impacting wastewater's budget.

### White Rock Water Resource Reclamation Facility

Audience: DPU  
Target timeline: 2023  
Funding: \$30 million  
Clean Water State Revolving Loan

The existing wastewater treatment plant in White Rock was built in the 1960s and is reaching the end of its lifespan. A new Water Resource Reclamation Facility (WRRF) is in the process of being constructed. This new facility was designed in-house to best serve the White Rock system needs. The WRRF is projected to be operational by 2023; however, supply-chain delays could push this date out.

### Sewer Rate Increase

Audience: all DPU sewer customers  
Target timeline: Oct. 2022 — Oct. 2025  
10-year investments in wastewater infrastructure: \$49,106,584

	Monthly Bill Based on	
Community	6000 gal	14,000 gal
LA FY23	\$58.21	\$58.21
LA FY24	\$59.37	\$59.37
LA FY25	\$60.56	\$60.56
LA FY26	\$61.77	\$61.77
Ruidoso	\$79.71	\$111.95
Angel Fire	\$113.29	\$206.01
Santa Fe City	\$44.56	\$90.72

Sewer rate increases are necessary to build cash reserves in the wastewater fund to ensure the department's ability to meet operational needs, handle system retirement obligations, and meet debt service requirements, and in preparation for unanticipated system failures or external disruptions. The topography of Los Alamos requires a complex wastewater system of pipes, pumps, and 27 lift stations. Santa Fe, comparatively, has four lift stations. See the table to the left for other community rates.

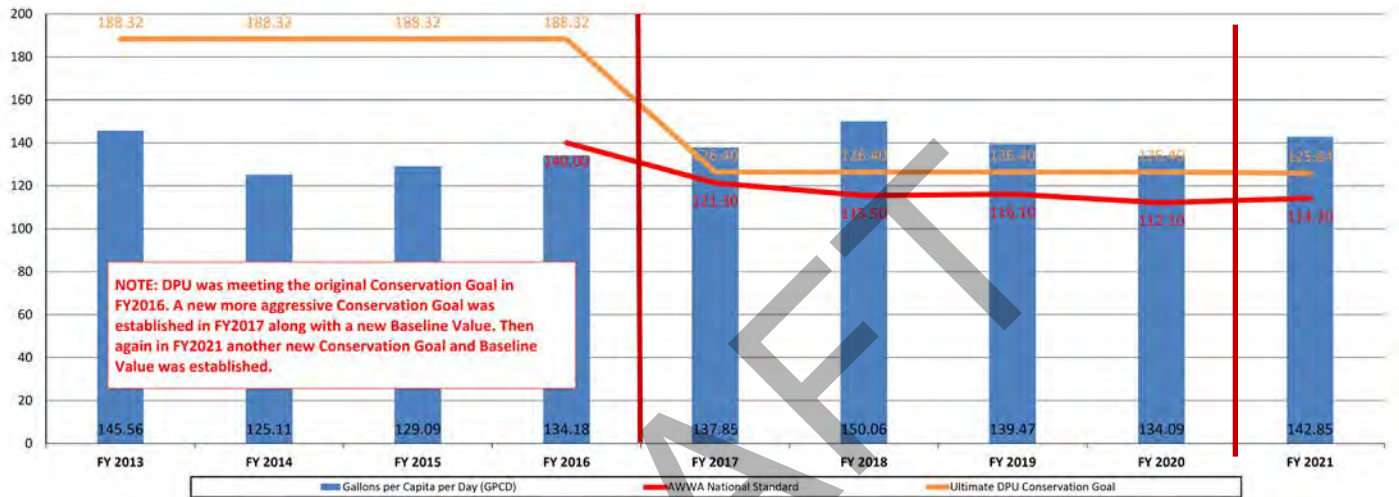
A new sewer rate was approved in February 2022. The rate increase will be at 2% per year for four years affecting the monthly service fee, the flat rate charge for residential customers, and the variable rates for commercial and non-residential customers. This was approved by both BPU and County Council and went into effect on October 1, 2022.

# ADDENDUM

## Goal 2: Reduce Potable Water Use to 126 GPCD

The full objective is to reduce potable water use by 12% from 143 gallons per capita per day (2020 calendar baseline) to 126 gallons per capita per day by 2030. The DPU Update Committee of 2020 recommended “reducing water use by at least a third.”

The Jemez y Sangre Basin Regional Water Plan identifies Los Alamos as having a GPCD between 200-300 and assumes a future GPCD reduction to 150 gpcd. The DPU GPCD calculations reflect values much lower and the BPU strives to meet the 12% reduction (adapted to the changing population) as recommended in the Long-Range Water Supply Plan to ensure accommodating future demands.



Gallons Per Capita Per Day (GPCD) for Los Alamos County, taken from an internal dashboard.

The chart above shows nearly a decade of total GPCD for the Los Alamos County water system. The orange line tracks the DPU’s conservation goal over this time. The 2020 baseline GPCD is 143.00. By 2030, GPCD will need to be 125.84 or less to meet the goal. This table lists achievable benchmarks for each year.

The figure below is from the study completed for the Long-Range Water Supply Plan. The conservation savings are from the 2016 GPCD baseline and population predictions. While a little out of date, with the LRWS plan last updated in 2017, the figure provides a good picture of the differences in savings between GPCDs.

Per Capita Water Use (gpcd)	Reduction from 2014 Per Capita Use (%)	Annual Conservation Savings	
		Low Population Projection (acre-feet) a	High Population Projection (acre-feet) a
130	4	89	124
120	11	267	371
110	19	444	619
100	26	622	866
90 <sup>b</sup>	33	800	1,114

<sup>a</sup> Annual water conservation savings that would be achieved based on reductions from the 2014 per capita value of 135 gallons per day in 2060.

<sup>b</sup> This value is equivalent to the City of Santa Fe’s per capita demand in 2015.

BASELINE GPCD: 143.00		Total Savings (Gal/Yr) from 2020
2021	141.28	11,850,353
2022	139.57	23,700,706
2023	137.85	35,551,058
2024	136.14	47,401,411
2025	134.42	59,251,764
2026	132.70	71,102,117
2027	130.99	82,952,470
2028	129.27	94,802,822
2029	127.56	106,653,175
2030	125.84	118,503,528

LRWS Plan projections of potential water conservation savings  
(taken from Table 5-10, LRWS Plan).

# ADDENDUM

## Reduce Potable Water Use

### Promoting Conservation of Water

Estimated savings from current GPCD to reach 2030 goal:  
11,850,000 gallons a year.

#### Water Rate Increase

*Audience: all DPU water customers  
Target timeline: Oct. 2022 — Sept. 2025*

Recent inflation and supply chain issues have necessitated rate increases for water. These rates will help ensure that there is sufficient water to meet customer water demand. This demand includes the increasing load at LANL and new housing developments throughout the county. The rates also contribute to repair and replacement of aging infrastructure to reduce leaks and main breaks, ensure appropriate infrastructure to support fire suppression, and maintain safe, quality drinking water that meets all standards.

Consumption May - September (Peak Season) Commodity Rate per 1,000 Gallons over 9,000 gal to			
Monthly Consumption	9,000 gal or less	15,000 gal	
Current	\$6.02	\$6.40	
Single Family Residential			
After 10/31/2022	\$6.50	\$7.15	
After 09/30/2023	\$6.83	\$7.51	
After 09/30/2024	\$7.17	\$7.89	
After 09/30/2025	\$7.53	\$8.28	
Multi Family Residential			
Current	\$6.02	\$6.33	
After 10/31/2022	\$6.50	\$6.50	
After 09/30/2023	\$6.83	\$6.83	
After 09/30/2024	\$7.17	\$7.17	
After 09/30/2025	\$7.53	\$7.53	

This rate increase includes cost-of-service adjustments. Specifically, rates will increase after each "peak" season (end of September). DPU's tiered water rate structure encourages water conservation during the peak season by increasing the water rate for usage above 9,000 gallons for single-family residences, the class using the largest amount of water at this Tier 2 rate in peak season (see page 027 for graphs).

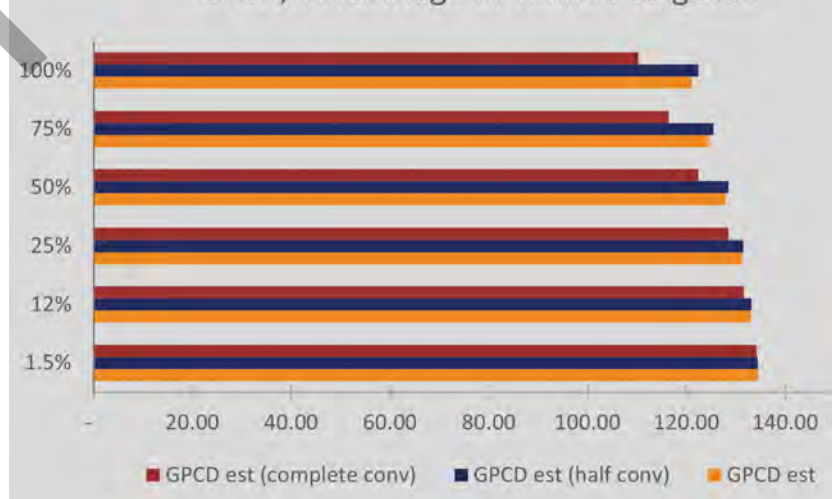
#### Promote Xeriscaping

*Audience: primarily SFR homeowners  
Target timeline: Spring 2023  
Saving potential: 1.2-2.5 million gal/yr*

Outdoor water usage is discussed on pages 026-027 of this plan. There are an estimated 5,369 single-family homes (per GPCD calculator). The graph to the right shows the change in GPCD if both front and back yards (complete), or just one yard (half), are converted to Xeriscapes/native-scapes.

This program would be partnered with the Los Alamos Master Gardeners and their Demonstration Garden and with PEEC and their garden space at the Nature Center. Additional partners could include the local nursery and landscaping companies. A webpage and resources will be available for homeowners to utilize.

GPCD, Percentage of Homes Targeted



#### Toilet Retrofits

*Audience: pre-1994 constructed homes  
Target timeline: Summer 2023 — 2025  
Saving potential: 1.4 million gal/yr*

Taking the housing information provided on page 013 of this plan, it is unknown how many of the estimated 7,000 homes have a water-efficient toilet. Calculations to the right show GPCD reductions based on a percentage of the pre-1994 homes. A toilet retrofit program would be explored in phases.

Phase 1: research/estimate retrofit potential by surveying pre-1994 homeowners

Phase 2: explore grants to provide rebate options

Phase 3: implement program and incorporate Fix-A-Leak educational materials

# ADDENDUM

## Reduce Potable Water Use

### Tools and Incentives to Conserve Water

#### Water Rule W-8

*Audience: DPU customers, primarily homeowners*  
*Target timeline: ongoing*

The Water Rule W-8 is a voluntary program that encourages customers to conserve outdoor water use by implementing the following best management practices:

- Between May and September, odd and even addresses can use irrigation water on designated days of the week before 10am and after 5pm.
- Water waste and irrigation water runoff should be eliminated.
- Sources of water leaks should be repaired.

#### Water Audits: Residential and Commercial

*Audience: DPU customers, 25/yr*  
*Target timeline: mid-2023 — 2024*

Water audits look at consumption data from utility bills, leaks from faucets and toilets, and water use habits. The DPU formerly completed commercial water conservation audits and irrigation audits for utility customers. It was determined not to be an efficient use of the coordinator's time at that period. Customers are encouraged to enroll in the new Automated Metering Self Service portal as an excellent way to self-audit. This program will send alerts when water consumption is above normal usage levels.

Commercial customers can also access the Automated Metering Self Service Portal. Additional efforts are planned to target non-residential customer classes as part of a Commercial Efficiency Program. This set of workshops will provide these customers information and resources to reduce consumption and increase efficiency of their properties.

LANL is one of the largest water customers for water-use processes; however, LANL is not under the jurisdiction of the DPU. LANL implements its own site-wide sustainability plan, which includes water-efficient measures.

The public school system is another large user and has expressed interest in working with DPU to reduce its consumption and improve water efficiency. The school could use reclaimed water for irrigation at a reduced rate.

An evaluation process is under way to partner with the Parks department to assess the irrigation of public parks and open spaces. This will allow the County to lead by example when encouraging other customers to reevaluate their own water and irrigation needs.

#### Water Efficiency Kits

*Audience: 500 households*  
*Target timeline: ongoing*

Water Efficiency Kits are advertised to new residents. The items inside this kit are a small sampling of conservation tools that can go a long way in saving water and money in homes and small businesses. These kits are free and contain such items as a low-flow faucet adapter, a water leak detector, a toilet tank saver, and a drip calculator.

#### Direct Rebates

*Audience: all DPU customers*  
*Target timeline: TBD*

The DPU, as a public entity, cannot currently offer any direct rebates on water conservation efforts that will reduce a customer's usage. This is subject to change with the recent NM constitutional amendment and customers will be notified of any rebates. Until then, the DPU shares federal rebate programs and will seek offering rebates as grant funds allow.

# ADDENDUM

## Reduce Potable Water Use

### Increasing Non-Potable Water

Estimated expansion of non-potable water: ~9 million gallons.

#### Non-Potable Water Master Plan

*Audience: DPU  
Current non-residential irrigated acres: 200  
Target timeline: 2013 — ongoing*

The Non-Potable Water System Master Plan was prepared in 2013 to optimize the use of effluent and surface water for non-residential irrigation purposes. This Master Plan helps DPU review existing infrastructure, evaluate existing and potential future irrigated sites, develop a realistic demand for system build-out, and recommend system improvements. DPU has been and continues to reference the Master Plan for non-potable projects. Increasing the availability of non-potable, reclaimed water will decrease potable water use in non-residential irrigation, a large source of water consumption.

#### Los Alamos Canyon Restoration

*Water supply potential: 8 million gallons  
Target timeline: Summer 2023  
Cost: \$800,000  
River Stewardship Program, Capital Budget*

The Los Alamos Reservoir was formerly a source of irrigation water and reserve water in the event of wildfire. Coincidentally, this water source and its transmission lines were severely damaged by major flooding events and siltation following the build-up of hydrophobic soils resulting from two wildfires in 2000 and 2011.

The DPU will be repairing the Los Alamos Canyon watershed using natural channel design. Repairs completed in this manner will allow for a more natural healing that will stand up long-term over manufactured, hard-wall type repairs. Once completed, the Los Alamos Reservoir will again be a viable source of non-potable water.

A recommendation of the LRWSP is to bring this reservoir back online to protect groundwater supplies in times of extreme drought. This project is also listed as a strategy in the Jemez y Sangre Regional Water Plan.

#### Non-Potable Water Tank Storage

*Water supply potential: 1 million gallons  
Target timeline: Fall 2023  
Cost: \$2,929,880  
Water Trust Board, Clean Water State Revolving Fund*

One of the upcoming capital projects in the Non-Potable Master Plan is the Bayo Tank Project which will construct an additional storage tank and make improvements to the existing tank. Storage will increase from 190,000 gallons to 1,000,000 gallons. This will allow a full day's discharge to be captured from the WWTP, increasing the amount of water that can be delivered to the community for irrigation.

#### Non-Revenue Water

*Target timeline: 2030  
Water supply potential: reduce non-revenue water by  
half of EPA National Standard (16.00%)*

Per the AWWA audit results discussed on page 029, the DPU will work with the offered guidance to reduce its non-revenue water by half by 2030. This starts with an audit of the automated data collection system and works up through an Infrastructure Leak Index.



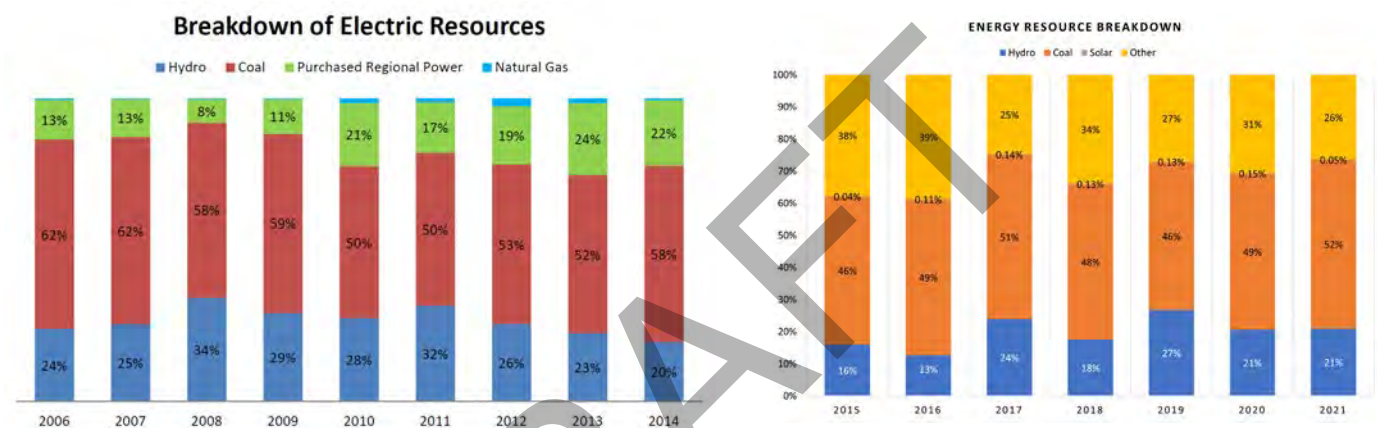
# Electricity ADDENDUM

## Overview

The 2015-2019 conservation program was guided by the following electric-centered goal:

a. **Reduce CO2 emissions for each kilowatt of electricity produced.**

- Update: emissions have not been calculated and tracked since 2015, but it can be surmised that overall CO2 emissions have decreased. The DPU has increased its power generated from wind and solar while phasing out one of its two coal-powered generating stations. A complete greenhouse gas study will be completed by the end of 2024, which will provide a better understanding of where this emission goal is trending.



b. Additional electric priorities and initiatives

- LA Green. A program that allows customers to pay a small surcharge for energy consumption to be used for "green" initiatives in the form of purchased Renewable Energy Credits (RECs).
  - 2015 Update: Los Alamos County owns considerable renewable and carbon neutral generation capacity and no longer needs to purchase RECs. Funds are used to offset additional operating costs on these generating resources.
  - 2022 Update: The DPU is using this funding source to fund energy efficiency technology demonstrations.
- Loss Evaluated Transformers: replace 1000 old transformers in 10-15 years
  - 2022 Update: supply chain has significantly delayed this ongoing project.
- Energy Audit
  - Update: Energy audits found to be an inefficient use of time and are on hold.

The 2022-2027 conservation program focuses on the following electricity-centered goals:

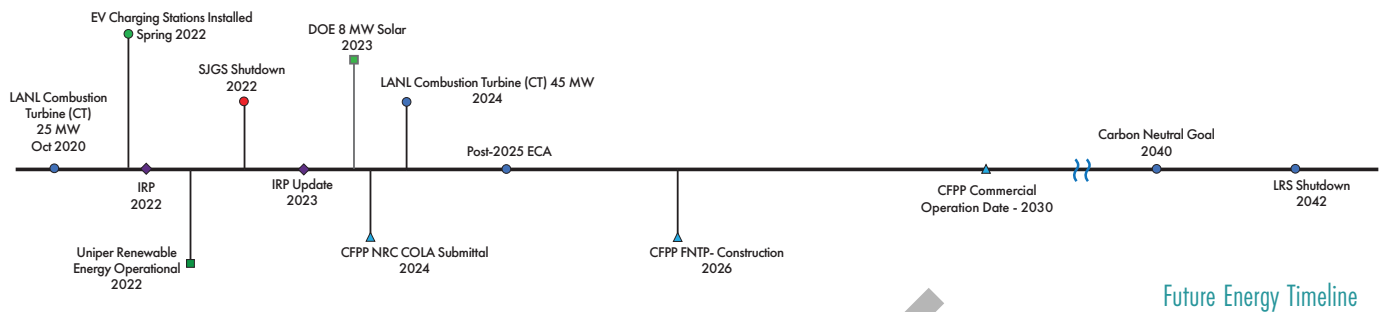
1. Be a carbon neutral electric provider by 2040.
2. Promote electrical efficiency through targeted conservation programs.



# ADDENDUM

## Goal 1: Be a Carbon Neutral Electric Provider by 2040

A “Carbon Neutral Electric Provider” means the DPU will be matching the electricity demand with a carbon free supply on an annual basis. This goal is predominately DPU-supplier focused.



### Balancing Resources

Carbon resources: ~46 megawatts  
Oncoming renewables and carbon-neutral: ~27-39 megawatts

#### Exit the Coal-Powered Generating Stations

Audience: DPU  
Target timeline: Sept. 30, 2022; 2042  
Megawatts provided: 46, fossil fuel energy

The San Juan Generating Station (SJGS) is a coal-powered facility located in Farmington, NM. The DPU is a partial owner in the SJGS #4 and receives a significant portion of its electrical needs from this resource. An amendment was approved to extend the agreement beyond the original closing date of June 30, 2022, to fill an energy gap created by the delay of new generation resources throughout the west. The new closing date is September 30, 2022. The DPU is working to replace this resource with the clean energy sources listed in this section.

The other coal-sourced generation station is the Laramie River Station in Wyoming. It is slated for closure 2040-2042. The DPU power production team is beginning discussions to trade or possibly exit this agreement early.

#### Carbon Free Power Project

Audience: DPU  
Target timeline: online by 2030  
Megawatts provided: 6.0-8.3, carbon-free energy

The Carbon Free Power Project (CFPP) is a NuScale Power small modular reactor plant being constructed at the Idaho National Laboratory. CFPP is being spearheaded by Utah Associated Municipal Power Systems (UAMPS), of which the DPU is a member. The DPU is currently subscribed for 2 MW based on a money threshold of \$1.2 million. The amount subscribed changes with market fluctuation and could be supplied with 8.3 MW when fully subscribed. This project is the first of its kind in the United States. More information can be found at <https://www.cfppllc.com/>.

# ADDENDUM

## Be a Carbon Neutral Electric Provider

### Tools and Incentives to Achieve Neutrality

#### Legislation

Audience: DPU

Target timeline: as-needed

##### *Energy Transition Act (SB 489)*

The Energy Transition Act, passed in March 2019, is New Mexico legislation that will make New Mexico a leader in renewable energy. The Energy Transition Act “sets a statewide renewable energy standard of 50 percent by 2030 for New Mexico investor-owned utilities and rural electric cooperatives and a goal of 80 percent by 2040, in addition to setting zero-carbon resources standards for investor-owned utilities by 2045 and rural electric cooperatives by 2050.” As SB 489 currently stands, this does not apply, but the DPU was one of the first in New Mexico to set a carbon neutral goal.

##### *Industrial Revenue Bond Act (HB50)*

Passed in 2020, this legislation makes transmission line projects eligible for Industrial Revenue Bonds available through cities and municipalities. The bond act will jump start critical transmission line construction, unlocking access to additional renewable energy resources.

##### *Energy Grid Modernization Roadmap (HB233)*

This piece of legislation, passed in 2020, directs the New Mexico Energy, Minerals, and Natural Resources Department to develop a strategic plan for energy grid modernization and to create competitive grant programs to implement such projects. This bill will ultimately encourage utilities to propose grid improvements for reliable and up-to-date systems to meet growing renewable energy demands.

The DPU’s Electric Production team contributed to the advisory group in 2020 for this legislation and continues to participate in New Mexico Public Regulation Commission’s grid modernization webinars.

#### Smart Energy Provider

Audience: DPU

Target timeline: Dec 2022 — Nov 2023

The DPU will be reviewing the application requirements for designation as a “Smart Energy Provider” from the American Public Power Association. A Smart Energy Provider is a designation “for utilities that show commitment to and proficiency in energy efficiency, distributed generation, renewable energy, and environmental initiatives.” Should DPU decide it’s qualified, applications will open in December 2022 and close in April 2023. Designations will be awarded in October or November of 2023 and will last two years, after which, the DPU would need to reapply to ensure maintenance of Smart Energy Provider best practices.

#### Investigate Emergent Power Technologies

Audience: DPU

Target timeline: 2022-2027+

Megawatts provided: 15-25, renewable

The DPU will investigate power options as resources and technologies develop. As resources and demands evolve, keeping a diverse energy portfolio is important as is providing a reasonable rate to customers.

## Photovoltaics/ Distributed Generation

Audience: DPU and Customers

Target timeline: 2040

Megawatts provided: 6 (initial goal)

Per the Fiscal Year 2021 DPU final report, there are approximately 3 megawatts of solar power installed on customers' roofs. The DPU will work with customers to promote education about and installation of additional solar panels while balancing this power load to the Power Pool grid. Distributed generation is programmed to supply 30% of the County's peak daily load locally.

The DPU is also interested in having a Hosting Capacity Analysis completed to understand the potential of distributed generation on the existing system and what upgrades would be required.

This study will also support the exploration of other solar installations such as panels on parking lot shelters and solarized building materials.

## Legislation

Audience: all utility users

Target timeline: ongoing — 2027

### *Solar Market Development Income Tax Credit (Senate Bill 29)*

2020-2027

Enacted on March 1, 2020, this piece of legislation provides a tax credit of 10% for small solar systems, including on-grid and off-grid PV systems and solar thermal systems. There is an annual funding cap of \$8 million issued on a first-come first-served basis. Customers are encouraged to submit an application to the NM Energy, Minerals, and Natural Resources Department as soon as their system is fully connected and operational.

### *Community Solar Act (SB0084)*

2022-2024

This program supports the development of community solar facilities which allows "equal access to the economic and environmental benefits of solar energy generation regardless of the physical attributes or ownership of an individual's home or business" and ensures that at least 30% of projects be allocated for low-income subscribers. DPU has evaluated this, but the DPU can acquire utility-scale resources directly and community solar as an additional utility service isn't being pursued currently.



## Transformer Upgrades

Audience: DPU

Target timeline: ongoing

Cost: \$45,000/refurbished transformer

As Los Alamos County electrifies and works to provide more carbon-free power sources, the grid system will need to be updated. Larger commercial transformers are specified and evaluated to run with minimal power loss over the life of the transformer. The replacement program is an ongoing effort to replace dangerous live-front transformers with safer dead-front versions. The original goal was to replace 1000 transformers by 2025-2030. However, supply chain issues have essentially halted this project. Transformers have increased in cost significantly and a small stock is kept on hand to immediately replace failed transformers instead of targeting aged ones on a list. The DPU will also need to prioritize transformer upgrades to accommodate the increasing electrical loading.

# ADDENDUM

## Goal 2: Promote Electrical Efficiency through Targeted Conservation Programs

The Water and Energy Conservation Coordinator will be responsible for the targeted conservation program. Los Alamos County supports Energy Conservation in County activities with the adoption of Index No. 0330, "Energy Conservation Policy" (found in Appendix 7).

### Initiatives

#### Promote Energy Efficient Technologies with Demonstrations

*Audience: all DPU customers  
Target timeline: 2023-2025*

The technologies being promoted as replacements to natural gas appliances are also highly energy efficient in comparison to conventional appliances. Other efficient technologies could include solar power and battery storage, lighting improvements, and programmable thermostats and controllers. The possibility of waiving permitting fees for efficiency improvements is also a recommendation of the DPU Update Committee of 2020.

The DPU is discussing different options to best demonstrate some of these technologies with a debut by 2023.

Customers could receive direct mailings with information on efficient technologies. For example, homes built before a certain year can be assumed to have a gas furnace and could be provided information on more efficient alternatives.

#### EV Charging

*Audience: DPU, visitors  
Target timeline: Spring 2023  
Cost: \$286,000, capital project*

The DPU is currently mid-project of installing two DC fast chargers in county-owned parking lots. While these and existing chargers are targeted at visitors, the DPU will investigate the options — ranging from encouraging to providing — for charging access for residents, especially the growing number of multifamily units.

An application has been submitted to be a part of a working Clean Energy to Communities peer-learning pilot cohort. This cohort will explore "accelerating the deployment of equitable, grid-friendly EV charging infrastructure" with other neighborhoods across the country.

#### Commercial Efficiency Series

*Audience: all non-residential customers, ~800 meters  
Target timeline: starting 2023*

Because residential customers make up the majority of DPU's customer base, a lot of programming is targeted at this class. However, in reviewing the 5-year average electrical consumption by class (see page 030), residential customers are a small percentage of the consumers. A program is in development for the commercial, education, and other classes. This program will be guided by the ENERGY STAR and WaterSense resources pertaining to these customers. A certification award will be considered for customers who achieve a set reduction in energy and/or water. Many of the buildings these customers occupy are older and could potentially have outdated and unmaintained fixtures and appliances. For example, weatherstripping gaps can save 5-10% on energy bills.

LANL implements its own efficiency plan, but the DPU could partner to exchange program ideas and spread initiatives across the county.

# ADDENDUM

## Electrical Efficiency in Targeted Conservation Programs

### Tools and Incentives to Promote Efficiency

#### Rebates and Incentives

Audience: all utility users

Target timeline: ongoing — Dec. 1, 2032

The DPU cannot directly offer rebates, but customers can take advantage of the following:

##### *Inflation Reduction Act (HR 5376)*

2022-2032

Part of the Inflation Reduction Act (IRA) is to reduce America's emissions. Per Rewiring America's *Go Electric Guide*, the IRA strategically **offers discounts and incentives** "to make the transition to clean energy and a decarbonized life easy and financially smart." This act will encourage the adoption of EVs and solar generation, as well as updating or converting appliances, among many other techniques. The programming in this act will also support weatherization, rewiring structures, and updating electrical panels to help with electrification. Programs are to begin in 2023 and last for 10 years. Extensive programming around the IRA will happen in early 2023 to assist customers in taking full advantage of the incentives.

##### *UAMPS*

A possible rebate program is being investigated with UAMPS, which would provide rebates for appliances with improved efficiency. Should this program become a reality, customers will be informed with a hybrid discussion with the PEEC partners, bill inserts, and a webpage.

#### Updated Building Energy Codes

Audience: builders and renovators

Target timeline: ongoing

Adopted in August 2020 by the State of New Mexico's Regulation and Licensing Department, the 2018 iteration of the International Energy Conservation Code (IECC) will reduce emissions from and increase efficiency of residential and commercial buildings. According to [energycodes.gov](https://energycodes.gov), it is estimated that residential customers could see cost savings of nearly \$400 annually (per 1000 ft<sup>2</sup>). Commercial customers could see \$138 in annual savings with a simple payback of 4.6 years.

The 2021 IECC has been released and could be adopted by the state in early 2023. Estimated total energy cost savings for the 2021 IECC compared to the 2018 IECC for this climate zone are 12.6%.

#### Efficiency Kits and Audits

Audience: DPU electricity customers

Target timeline: ongoing, 500 kits

Free Energy Efficiency Kits are available from the DPU and can be picked up at the Pajarito Environmental Education Center or at the Customer Care Center. These kits contain child safety outlet caps, which also help keep drafts out, switch and outlet foam sealers, rope caulk for sealing small gaps, an LED nightlight, an LED bulb, and a furnace filter whistle that alerts customers when it's time to change the filter to maintain efficiency. The items inside this kit are a small sampling of conservation tools that can go a long way in saving energy and money in homes.

Until efficiency audits become available, customers are encouraged to do DIY audits using any one of the online calculators, tracing down and sealing drafts, and evaluating behavior. Commercial customers can utilize the ENERGY STAR Portfolio Manager, which helps track consumption and provides recommendations for improvements.

# Gas ADDENDUM

## Overview

The 2015-2019 conservation program was guided by the following gas-centered goal:

**Goal 1: Improve natural gas efficiencies relative to the 2006-2011 baseline beginning in 2014. Initially this goal translated to a 3% reduction by 2030.**

- a. Priorities to assist this goal – from public input
  - i. Incentives for high efficiency washing machines and refrigerators
    - Update: Never explored further. Restriction on public entities providing rebates has been a major hinderance.
  - ii. Enhanced home energy audits
    - Update: Energy audits found to be an inefficient use of time and are on hold.
  - iii. Neighborhood audit program
    - Update: never explored further.
    - Current program will consider curating resources for improving efficiencies of a range of home types. This can be accomplished because a majority of the homes were built in blocks when the town was under government control.
  - iv. Increase energy conservation education and outreach
    - Update: PEEC continues to hold annual water festival for 4th graders with around 250 students benefiting each year.
    - A Home Efficiency Expo was held in 2016 in conjunction with tours of energy efficient homes. Both were well attended (220 people and 81 people, respectively).

The 2022-2027 conservation program focuses on the following gas-centered goal:  
**1. Reduce natural gas usage by 5% per capita per heating degree day by 2030 using a 2020 calendar year-end baseline and support elimination of natural gas usage by 2070.**



Graph charting Los Alamos County therms per capita per heating degree day. A “heating degree day” (HDD) essentially means a day when the temperature outside warrants using a heating source to get the inside temperature to 65°F. For example, if the outside temperature is 40°F, it takes 25 degrees to reach 65°F thus the day has a 25HDD. See the chart “Monthly average heating and cooling degree days” in Gas Overview section.



# ADDENDUM

## Goal 1: Reduce Natural Gas Usage by 5% by 2030 and Support Elimination by 2070

The full objective is to reduce natural gas usage by 5% per capita per heating degree day by 2030 using a 2020 calendar year-end baseline and support elimination of natural gas usage by 2070. The DPU Update Committee of 2020 recommended the goal to “eliminate use of natural gas.”

### Planning for Cost Adjustments

Audience: DPU

Cost: TBD

Target timeline: Ongoing, 2070 DEADLINE

As customers are encouraged to switch, the DPU will need to develop a plan to offset the cost for the remaining customers and determine a phase-out course of action. The overall cost of operating the gas delivery system will remain the same, no matter the number of customers; however, the total cost divided among 4,000 customers will be noticeable versus the cost divided among the current approximate 8,000 customers.

### Reducing Unaccounted-for Gas

#### Replace Meters For Accuracy

Audience: DPU

Benefits: DPU Customer

Target timeline: Ongoing, 375/year

The DPU will continue replacing gas meters to provide more accurate readings. Meter technology is continually evolving, and the newest meters are very accurate but have shorter battery spans. A new meter change-out goal will be revised for Fiscal Year 2023, increasing the number of meter change outs to 375 per year. All isolated gas risers were replaced between Fiscal Year 2010 and Fiscal Year 2016.

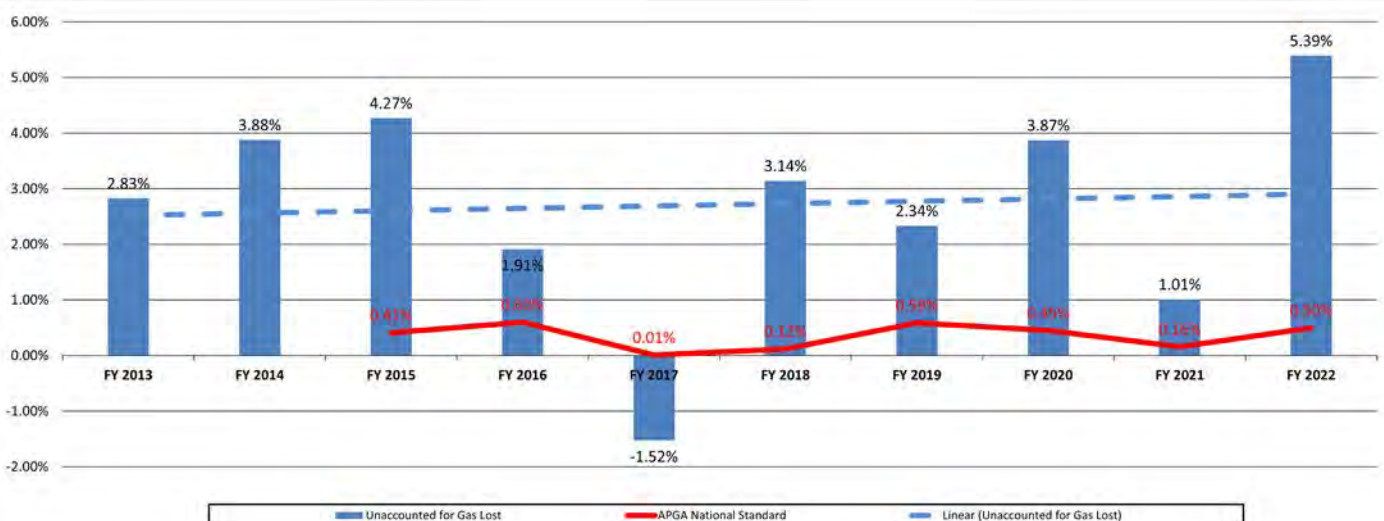
#### Leaks and Lost Gas

Audience: DPU

Target timeline: Ongoing

Per compliance, gas leaks are addressed and fixed as found and are reported annually to the Pipeline and Hazardous Materials Safety Administration, known as PHMSA. The report includes size, material, age, and mileage of pipes as well as services, leaks, and causes occurring in the fiscal year.

Unaccounted for gas is reported on the PHMSA report and is also tracked on an internal dashboard.



Unaccounted For Gas Loss (%).

# ADDENDUM

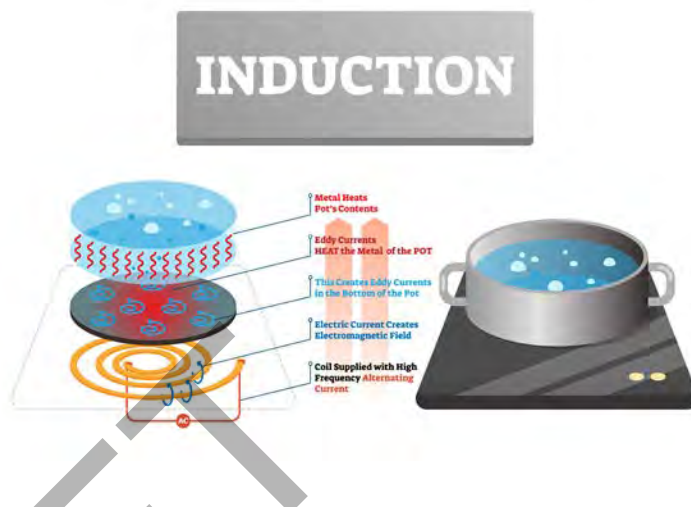
## Reduce Natural Gas Usage and Support Elimination

### Promote Alternatives to Gas

Audience: DPU Customers  
Target timeline: 2022-2025+

Funding for new technology demonstrations is provided by the "LA Green" program funds. This is a funding source that customers can opt-in on their utility bill to ensure that DPU is providing some electricity from green sources. This fund is no longer needed because DPU has reliable sources of clean energy. The BPU approved using the remaining money in this fund on projects contributing toward DPU conservation objectives.

In addition to demonstration units, resources will be published in monthly bill inserts, social media, and as a webpage. Talks will be organized when possible.



### Induction Cooktop Technology

Audience: DPU Customers, goal of 1000  
Est. Cost: \$750 (loaners); \$4000 (stove)  
Target timeline: July 2022+

The DPU has two projects under way to provide customers the opportunity to try induction cooking technology before committing to full units. Induction cooking technology uses electromagnets to heat an induction-compliant cooking vessel. These units heat cookware faster than conventional electric cooktops. They also eliminate the indoor air pollution and open flame danger of gas stoves.

The first project is a loaner program with portable induction cooktops. These single burner units will be available to residents of Los Alamos County for a period of two weeks and will include instructions and cookware. This project will begin in July 2022 and will start with six induction cooktop kits.

The second project is to install a full induction stove unit at the White Rock Municipal Complex. DPU staff will document the installation of this unit to better provide customers information on this process. Cooking classes will be taught using this stove and customers will have an opportunity to test the difference between an induction unit and their existing stoves at home. The project will be installed in the winter of 2022-2023.

### Heat Pumps

Audience: DPU Customers, goal of 500  
Est. Cost: \$5000-\$7000  
Target timeline: 2023

The DPU is actively working to find locations to demonstrate a heat pump dryer, a heat pump hot water heater, and other heat pump-driven technology. The desired locations will be similar to the location for the induction stove: accessible and interactive (where appropriate) by the public. The DPU wants to provide opportunities for public interaction to best encourage adoption of heat pump technologies.

# ADDENDUM

## Reduce Natural Gas Usage and Support Elimination

### Tools and Incentives to Conserve Gas

#### Energy Audits

*Audience: DPU Customers*  
*Target timeline: 2022 — 2025+*

Energy audits allow customers to see consumption history and sources of energy leaks within their home. These audits result in recommendations for conservation practices to reduce energy loss and consumption. Currently, the DPU is not offering comprehensive energy audits as it was determined to be an inefficient use of the previous coordinator's time. Options are being evaluated to provide this service in the future with partner organizations. The current coordinator will review energy usage with any customer (commercial, residential, other) to look for trends and provide surface recommendations.

Resources on weatherization and DIY audits, such as the ENERGY STAR Home Energy Yardstick, are available for customers.

Customers are also encouraged to access Automated Metering Self Service Portal to see nearly real-time consumption data and self-audit. This system has already helped with detecting leaks, saving customers money, alleviating dangerous gas situations, and reducing unnecessary waste of natural resources.

#### Gas Rate Increase

*Audience: all DPU gas customers*  
*Target timeline: Oct. 2022 — Oct. 2025*

Large increases to costs due to inflation and supply chain shortages have negatively impacted current gas fund balances. The proposed adjustments are intended to generate revenues needed not only for current operations but also to build cash reserves necessary for future infrastructure needs. Gas rates will increase every year for four years, unless deemed not needed. This rate is a "pass-through" rate structure and includes the monthly service fee and the consumption rate. The consumption rate is complex, but more simply put DPU's actual cost to purchase the natural gas commodity is passed directly to the customer in the variable portion of the commodity rate, which is calculated monthly. Large meters and large gas consumers are going to see this gate rate increase the most. Customers are provided with conservation measures to reduce gas consumption and help lower their bills.

#### Rebates

*Audience: all DPU gas customers*  
*Target timeline: 2023 — 2033*

The DPU, as a public entity, cannot currently offer any direct rebates on gas conservation efforts that will reduce a customer's usage. This is subject to change with the recent NM constitutional amendment and customers will be notified of any rebates. Until then, the DPU shares federal rebate programs and will seek offering rebates as grant funds allow. DPU is investigating a possible rebate program with UAMPS.

The Inflation Reduction Act is promising some extensive rebates and incentives to encourage customers to electrify their systems over the next 10 years. Programs are anticipated to begin in 2023. Resources and guidance will be provided to the DPU customers as program information becomes available.

# ADDENDUM

## Additional Goal: Develop and Strengthen Partnerships with Stakeholders

### DOE/LANL

The DPU and the DOE are joined in an ECA which allows each entity to combine resources for the Los Alamos Power Pool. The Power Pool purchases, sells, and schedules the power required for Los Alamos County customers and LANL. The current ECA expires in 2025 and both parties are working on negotiations for a post-2025 ECA. The IRP is a tool that assists the ECA partners in planning for future resources.

### Sustainability Manager

The County recently hired a sustainability manager, per a recommendation of the LARES Task Force. The first task for this position will be to manage a contract for the greenhouse gas study and subsequent climate action plan. A partnership with the sustainability manager will guide the DPU in implementing LARES recommendations that the BPU have found in-line with DPU goals.

The LARES Task Force, appointed in 2021 by Los Alamos County Council to create recommendations to reduce carbon footprints and enhance sustainability, released a final report in 2022. With each recommendation in the plan, LARES includes a strategy for completion and potential costs. The sustainability manager will be responsible for implementing these recommendations.

An additional and tied partnership will be with the ESB. The ESB was established to advise the County Council on environmental sustainability issues and related policies, programs, and services. Several of the points in the Los Alamos County Sustainability Plan overlap with the DPU Goals and Objectives; however, the Sustainability Plan focuses on creating a more sustainable community while the DPU Conservation Plan specifically relates to the supplier and customer of utilities.

### Reclaim Water Users

The DPU will continue to work with the current users of reclaimed water for irrigation to ensure this valuable resource is not being wasted by broken or misaligned sprinklers, or by over watering. The primary consumers of this water source are the County Parks Division and Golf Course. The public schools and LANL are additional, large-scale potential users as the reclaimed/non-potable water system is expanded. The pipeline network is not in place to accommodate residential users of the county system.

### Library of Things

In November of 2022, the DPU agreed to a trial period of loaner items through the public library. This program will begin with loaning two of the very popular induction cooktop units and four of the new Kill A Watt power meters with instructions on interpreting the meter results. The library is working on expanding by loaning items beyond media (books, CDs, etc.) and the DPU can reach out to additional audiences.

# ADDENDUM

## Partnerships with Stakeholders

### Memberships

#### Alliance for Water Efficiency

In July 2008, the DPU became a charter member of the Alliance for Water Efficiency (AWE), which provides comprehensive information about water efficient products, practices, and programs. Additional services include the development of conservation codes and standards, coordination with green building initiatives, training for conservation professionals, and general water use education.

#### New Mexico Water Conservation Alliance

The DPU continues to be a member of the New Mexico Water Conservation Alliance (NMWCA), a non-profit dedicated to water conservation issues. Many communities from around the state meet regularly to discuss issues, exchange information, provide education, and work toward a water-secure future for New Mexico.

#### WaterReuse

In April 2021, the DPU joined the New Mexico chapter of WaterReuse. The WaterReuse Association is solely dedicated to advancing laws, policy, funding, and public acceptance of recycled water. WaterReuse is focused on “aiding and accelerating the natural process of cleaning the water to make it suitable for its intended purpose, from irrigation to industrial uses to drinking.”

#### Energy Star Promotional Partner

The DPU became a promotional partner with the Environmental Protection Agency’s Energy Star Program in 2008. This partnership provides a unique opportunity to leverage ENERGY STAR™ and receive free energy efficiency updates designed for customer education.

#### Alliance to Save Energy Member

In 2008, the DPU became a member of the Alliance to Save Energy, which is well known for its national Energy Hog campaign. The bipartisan non-profit is a coalition of business, government, environmental, and consumer leaders advocating to advance federal energy efficiency policy.

### Voice of Customer Survey Feedback

*Audience: DPU Customers  
Target timeline: Dec 2022 — Nov 2023*

The “Voice of the Customer Survey” is specifically designed to help the DPU understand the customer perception of the utility and the services provided. The 2022 Voice of the Customer Survey revealed that customers gave the DPU a poor rating on “helping customers conserve electricity, gas, and water.” This aligns with the absence of a dedicated Conservation Coordinator from 2016-2021 and only opens up room for improvement until the next survey.

# Appendix 1

## Public Input: Recommendations from DPU Update Committee

### GOALS

1. Eliminate use of natural gas.
2. Find ways to accommodate a massive increase in residential and local solar.
3. Reduce water use by at least 1/3.

### RECOMMENDATIONS FOR EDUCATION AND PROMOTION:

1. Customer use of Advanced Metering Infrastructure (AMI) data

The installation of smart meters will eventually allow customer access to AMI data. This could revolutionize individual utility use as customers learn how much they use with various activities. But to be effective, the AMI data presentation must be simple and easily understood. This means there is a need to ensure people have adequate education on how the AMI system works, and some assistance with figuring out what it means. The county should provide interpretation: how is this supposed to work and how does the individual customer make changes?

Advantages: Knowledgeable customers will modify behavior to increase conservation.

Drawbacks: Cost of presentation software and customer access. Some county labor involved with interpretation.

2. Promote "Conservation Will Happen and Will Mean Increased Unit Costs"

If people understand that conservation is inevitable, and that it will mean unit costs will increase, it will inoculate people against a commonly known issue while encouraging a modest race to save both resources and money. Of course, unit costs will probably go up anyway, maybe even more without conservation. See appendix "Cost of Conservation" for further explanation.

Advantages: No cost. Is honest. Provokes conservation on all fronts.

Drawbacks: Will probably open brief heated debate on conservation.

3. Add "Residential Avg Usage" to Electricity, Gas and Water on Utility Bills

Allows each customer to know how their usage compares to residences of similar size. Usage at all single-family homes would be averaged and compared, while duplex- and apartment-style units would have their own comparisons. (Albuquerque does this on their water bills) See appendix "Residential Average Usage" for further explanation.

Advantages: Lets above-average users know they can do better.

Drawbacks: Some programming and data processing time.

4. Encourage Programmable Thermostats and Controllers

Should be installed in new construction. County could supply information about energy and cost savings from using these relatively simple and low-cost devices.

Advantages: Decreases usage when appropriate. Saves money and resources.

Drawbacks: Very minor cost increase for device, compensated by savings.

5. Publish Standards on Thermostat/Controller Settings and Energy Savings

Explain how devices are used (all features, etc.) and how do they maximize efficiency? Use ASME standards and area-specific input from the New Mexico Technical Resource Manual to indicate proper settings and explain results. Compare new/suggested measures with previous/baseline measures.

Advantages: Sets baseline to encourage use of improved controllers.

Drawbacks: Some research and writing.

6. General Energy Efficiency Education

Provide information in monthly bill statements or monthly mailings on energy efficiency. Since not everyone gets a bill in



# Public Input: Recommendations from DPU Update Committee (continued)

the mail, there should also be online media information feeds.

Advantages: Educated customers generally conserve.

Drawbacks: Some county time and possibly printing costs.

## RECOMMENDATIONS THAT MAY INVOLVE REBATES:

### 7. Pursue Grants for Appliance Rebates and Publicize Existing Local State and Federal Rebates and Tax Breaks

Typically affected appliances are water heaters, furnaces, ranges, washers, dryers, refrigerators, lighting fixtures, evaporative coolers, air conditioners, heat pumps, and smart thermostats. Information could be part of one of the current DPU bill inserts.

Advantages: Replacing older inefficient appliances with newer highly efficient versions should reduce consumption.

Drawbacks: Some investment of time and resources from county staff.

### 8. Reduce Outdoor Water Use with Xeriscaping Education, Rebates and/or Incentives

With a warming climate, water use on residential landscapes will only increase, and it is already the highest seasonal water use for most residences. Smart plantings and removal of unused turf can greatly reduce the amount of water use. Also, the storage of rainwater and snow melt on the residential property can improve plantings and reduce wear and tear on stormwater runoff infrastructure. This is the biggest bang for the effort--as water use clearly increases during hot months .

Advantages: The county already contracts with an education center, and education is low cost treatment. Easy changes through rebates (removing turf rebate) can result in large water savings almost immediately.

Drawbacks: Rebates or incentives cost money, but only using education can be a slow process

## RECOMMENDATIONS ABOUT COUNTY SERVICES:

### 9. Coordinate and support efforts with Los Alamos Public Schools (LAPS)

LAPS is generally cooperative and certainly wants to save money. There are indications they could save at least 10% on water bills by altering their schedule, and there are probably many other ways to cut utility use and save money.

Advantages: Utilities conserved, LAPS saves money

Drawbacks: Time and effort from both county and LAPS.

### 10. Free delivery of tumbled glass or mulch when replacing turf

Remove a common obstacle to xeriscape conversion (homeowner doesn't have access to an appropriate truck). Same thing could be accomplished with a loaner truck.

Advantages: Saves water.

Drawbacks: Labor cost if delivered, truck cost if a loaner.

### 11. Accommodate Purchase-power-only Hybrid Solar

It is now possible to set up residential solar systems that use modest battery backup and do not feed back into the grid, only using county electricity when the battery system is depleted. This solves the county's problem of trying to use the unpredictable electricity produced.

Advantages: Less load on county electrical system without need to adjust grid.

Drawbacks: Some revenue loss, some code and rate complications.

### 12. Eliminate Most Street Lights

Some (not all) research indicates that streetlights only increase safety at main intersections. This is a complex issue full of wild claims on both sides, but it's certain that removing streetlights saves a lot of energy and improves the night sky.

Advantages: Cuts costs, eliminates substantial CO<sub>2</sub>, improves night.

Drawbacks: Makes some people feel less safe.

## RECOMMENDATIONS INVOLVING CONSTRUCTION:

### 13. Solar-ready roofs and siting for new construction

# Public Input: Recommendations from DPU Update Committee (continued)

Encourage or require new structures to have solar-friendly attributes

Reducing roof penetrations and shading on south-facing areas, aligning structure for southern exposure, installing conduit for future solar infrastructure, enabling passive solar design features such as summer-shaded south facing windows. It is much less expensive to include these features during initial design and construction than add them in the future and can provide long-term energy benefits.

Advantages: Reduce cost of future improvements and improve efficiency.

Drawbacks: Additional construction cost. Perception of government overreach. Restriction of architectural design freedom.

14. Stop issuing natural gas hookups to new construction

Natural gas is primarily used for heating homes and water, and secondarily for stoves. Most homes will probably develop greater electricity capabilities (solar, etc.) and incorporate more energy-saving design. La Senda Unit B used this approach and potentially be a pilot program.

Advantages: Reduces greenhouse gasses.

Drawbacks: May initially be more expensive to heat. Some folks are very attached to gas stoves despite their inefficiency.

RECOMMENDATIONS INVOLVING BILLING OR FEES:

15. No property assessment increase for building improvements that increase water, gas or electric efficiency

Stop charging people indefinite tax for conserving. Already in effect for solar installations.

Advantages: Removes a roadblock to conservation.

Drawbacks: Very minor revenue deferral. Possible legal issues?

16. Waive building permit fees for improvements that cut water use or energy consumption

Window replacements, solar hot water, rain collection systems, etc.

Advantages: Removes a roadblock to conservation improvements.

Drawbacks: Possible increase in staff work, loss of some revenue.

17. Eliminate fees to set up off-grid solar

The county has difficulty using the solar power produced by small home systems. Much goes to waste since it is not delivered to the grid at a time that it can be used. Off-grid solar does not create this problem while it conserves resources. If these homes never use county electricity, and are self-sufficient, then the county does not need to plan on providing it and can reduce the amount of power that is purchased.

Advantages: solar electricity does not go to waste. County doesn't need to try to store this solar energy in County-owned batteries. County does not need to purchase as much electricity. Roof-top solar does not input to the County's electrical infrastructure, and therefore does not 'tax' the infrastructure

Drawbacks: New County Building Codes may be needed to assure that solar owners build to safe standards. Adds a County Building inspection. County loses some homes as customers

18. Granular Tiered Water Rates

Use small, easily understood tiered water rates that start quickly. For example, first 100 Gallons is 50 cents, second 100 gallons 51 cents, etc. When costs increase slightly for every unit used the system is easily understood and immediately effective. Plus, there is no low "dead zone" where consumers feel they have implicit permission to use the amount in the lowest tier.

Advantages: Easy to understand and implement. Initial rate would be lower. No additional cost. Avoids "Implied Permission."

Drawbacks: Some up-front programming cost.

19. Eliminate Service Charge for Water Usage

Remove "In for A Penny" tendency to use water while rewarding the most stringent conservation. The service charge gives the impression that first few thousand gallons of use only increases cost slightly. If all usage is a direct cost, even more conservation is encouraged.

# Public Input: Recommendations from DPU Update Committee (continued)

Advantages: Maximizes cost advantage of conservation

Drawbacks: Requires slight adjustment to rates to be value neutral

## 20. Convert Electric and Gas Services Charges to Minimum Charges

Remove a regressive tax. Virtually everyone uses enough gas and electricity to surpass current service charges. A direct usage-to-cost relationship simplifies understanding of conservation advantages while simultaneously benefiting lowest income bracket.

Advantages: Simplifies rate and saves money for super conservers

Drawbacks: Requires slight adjustment to rates to be value neutral

Appendix:

### Cost of Conservation

Most people who consider conservation issues understand that conserving utilities will inevitably lead to higher unit costs, such as price per thousand gallons of water. Further, many otherwise uninterested folks have noticed this effect over the years.

So far, it has not been openly acknowledged or promoted, perhaps because there is a suspicion that it would lead to resistance toward conserving.

However, if it becomes a "meme" it would probably have the opposite effect. Presented as "conservation will happen" and therefore "unit prices will go up" it should provoke a modest Race To The Bottom. Meaning, it would encourage people to cut back on their use to avoid paying more for their utilities. Even more interesting, it means the more aggressive conserver may end up saving quite a bit as time goes by.

It has several advantages, not the least being that it's true. Conservation will happen whether we like it or not. And it will lead to higher unit costs.

Probably it would be best to avoid any heavy-handed or over serious approach. An even-tempered statement that 'this is inevitable' should be enough.

It could also be pointed out that this does not mean the average bill would necessarily go up. Using water as an example, if we all used half as much water, the infrastructure would be less strained, water treatment would be cheaper, the cost of pumping would probably go to less than half due to the longer recharge period in the wells, and it probably would mean far less need to sink new wells. While the cost advantages are muzzy at best, it is in fact possible that under the 1/2-use scenario we would all pay a little less on our water bill.

Finally, it should also be noted that unit prices will probably go up anyway, with or without conservation. And there are scenarios where gas, electricity or water prices would go up even faster without conservation.

The cost of taking this approach would be nearly zero. Basically, zero compared to current methodologies, since it's normal to include flyers in the utility bills -- it would just be additional content.

### Residential Average Usage

People naturally compare themselves to their neighbors. If you are the high water/electricity user, and you know it, you are more likely to make changes to reduce your usage. This information works best with an education plan, promoting conservation throughout the community. It effectively and privately guides residents into conforming and conservation.

It's easy data to compile since the county already collects it. It's easy to put this data on utility bills, next to the 'actual' usage from the past year (using two columns in the graph). The county can easily watch the yearly average usage, as this number will decrease from year to year if residents are conserving.

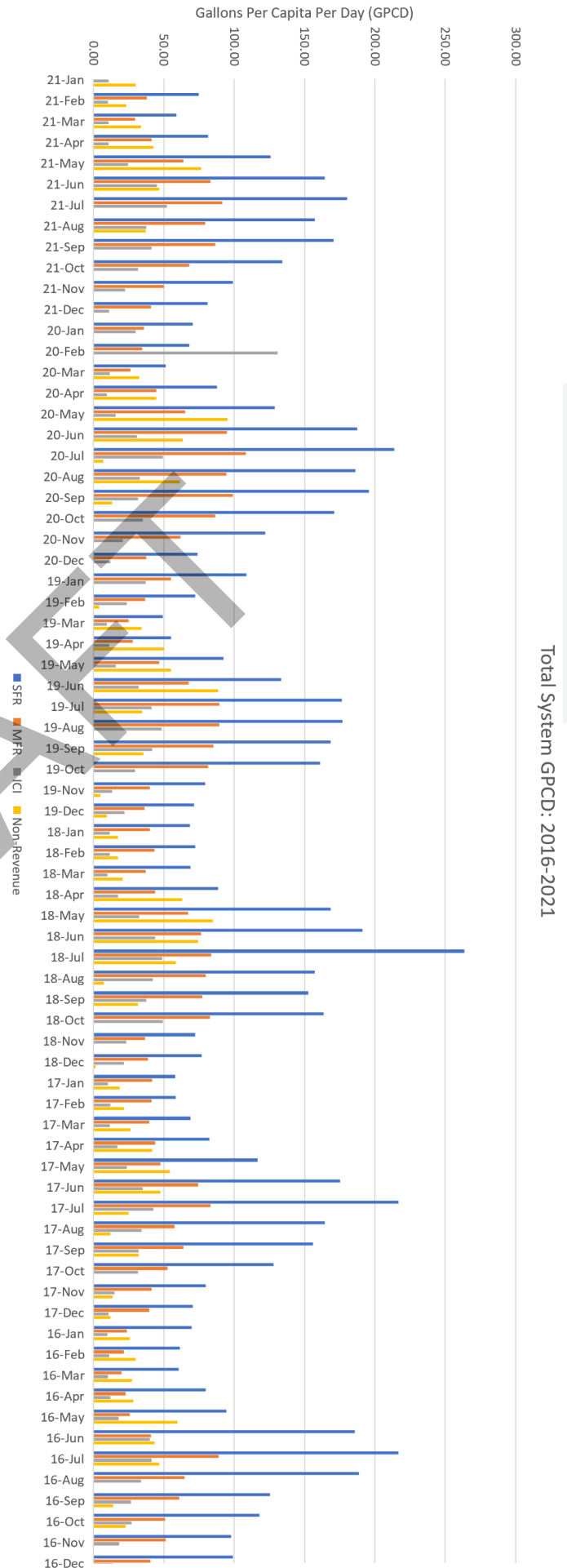
A new routine will need to be written for the Utilities to calculate the information. This may need funds to accomplish, if the county does not have a programmer on staff to write the script. The statements need a new format to add the average data to the graphs.

# Appendix 2

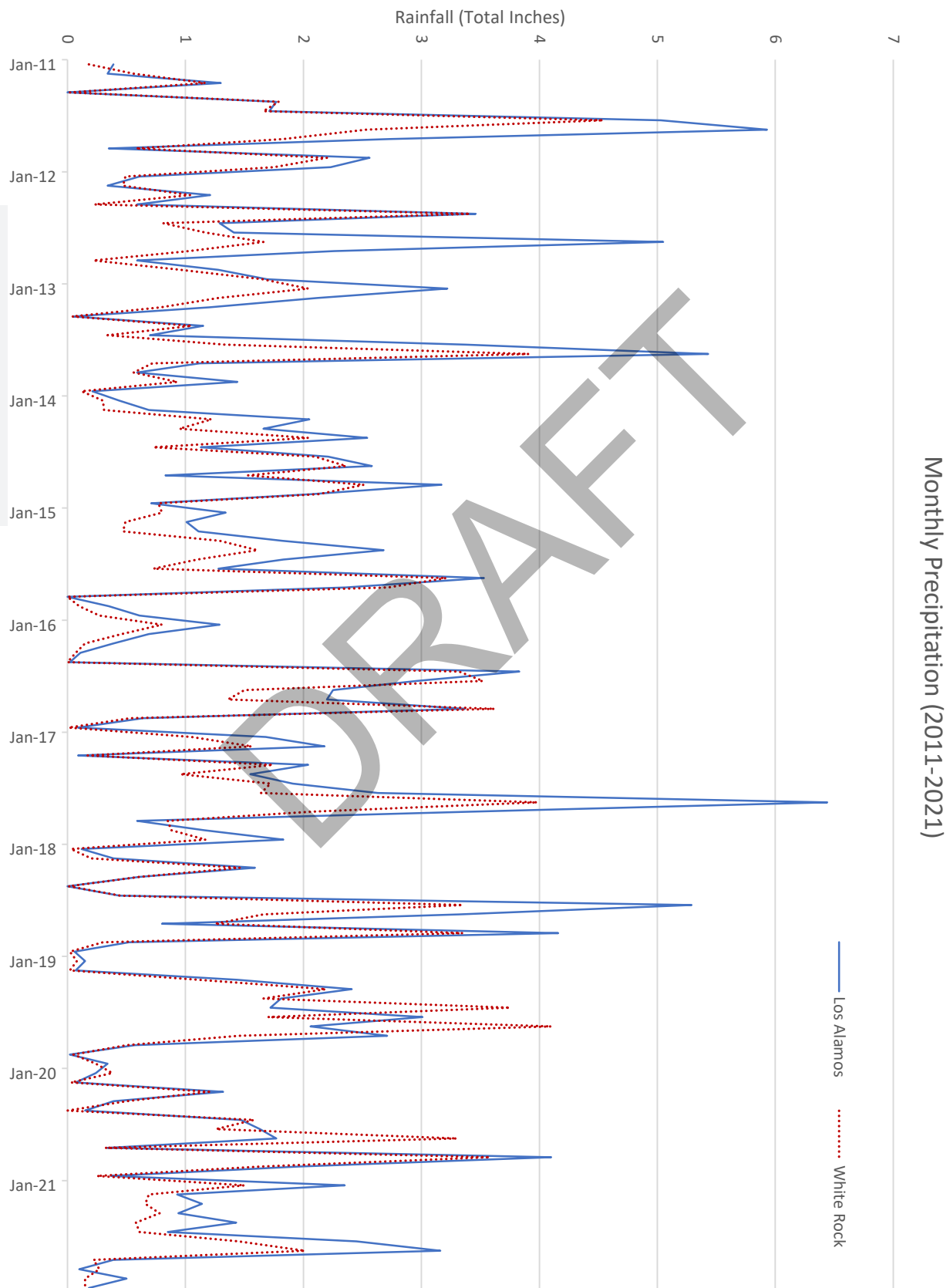
## Additional Graphs and Enlarged Figures

Monthly Gallons Per Capita Per Day  
5 years of monthly GPCD data as references in  
"Assessing Supplier Performance: Water," page 025.

Opposite page: Monthly Precipitation 2011-2021,  
page 014.



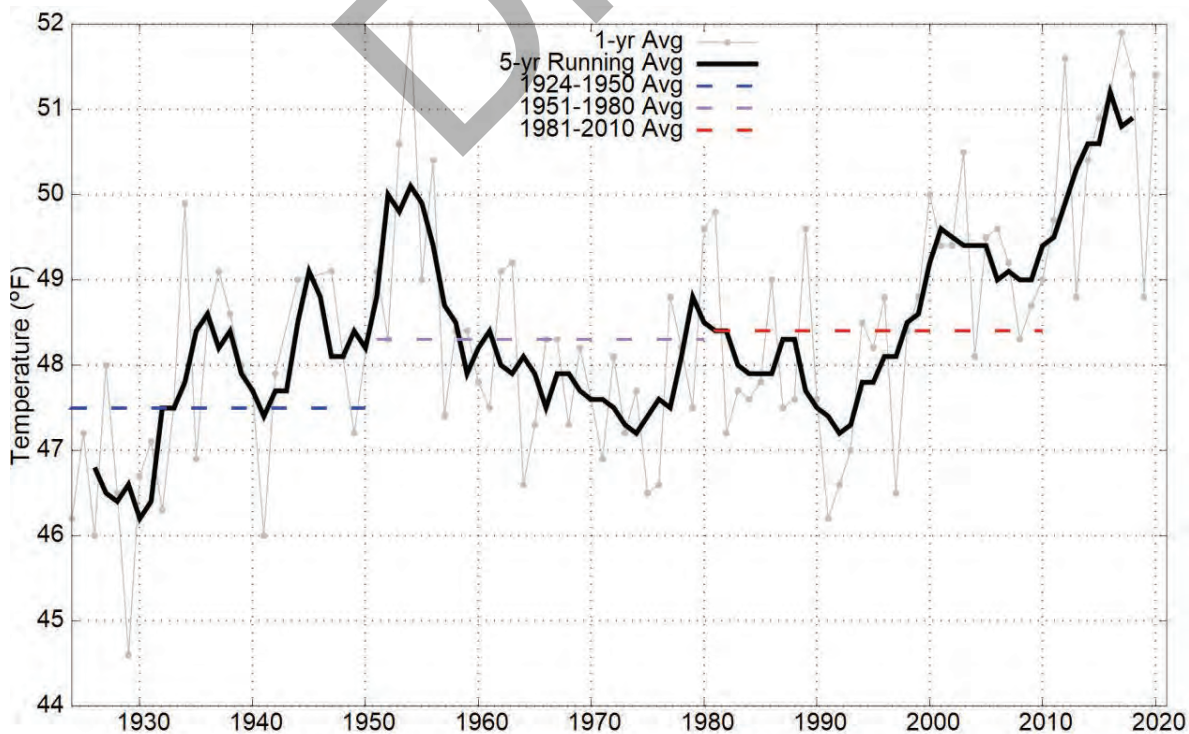
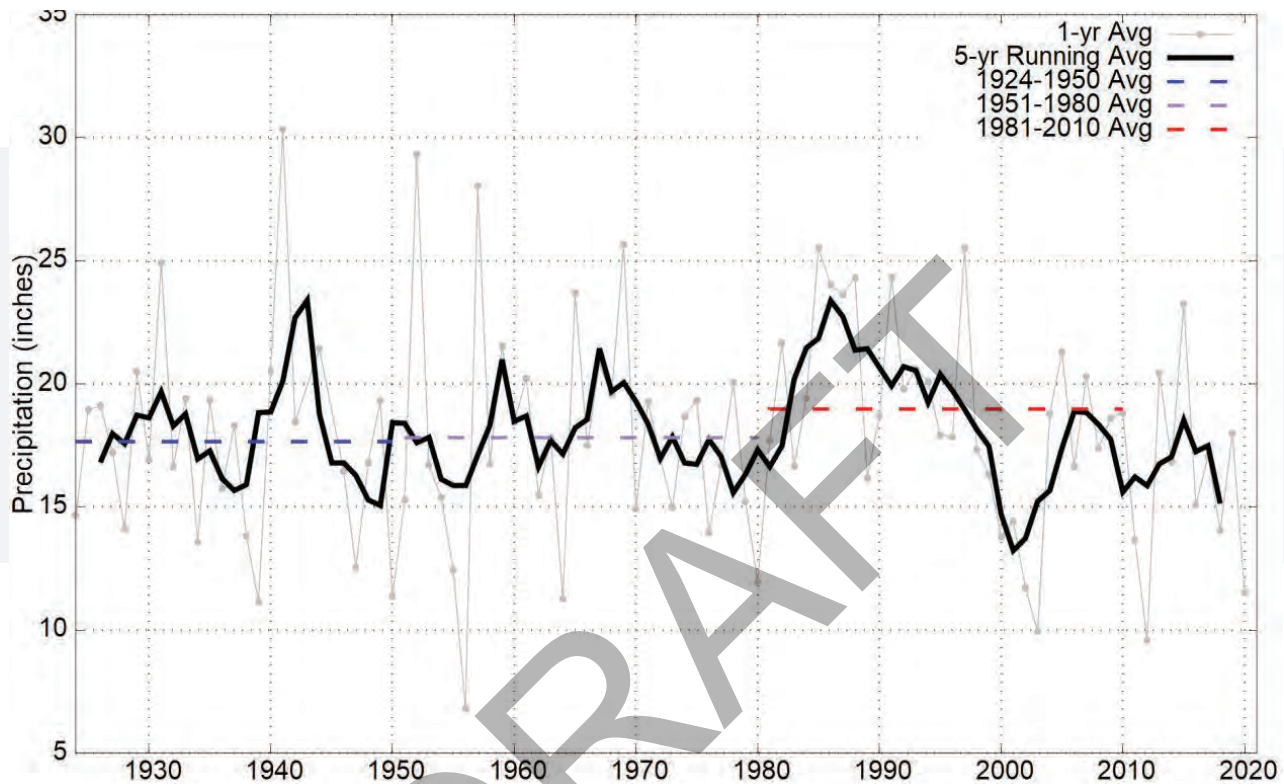
# Appendix 2



# Appendix 2

## Additional Graphs and Enlarged Figures

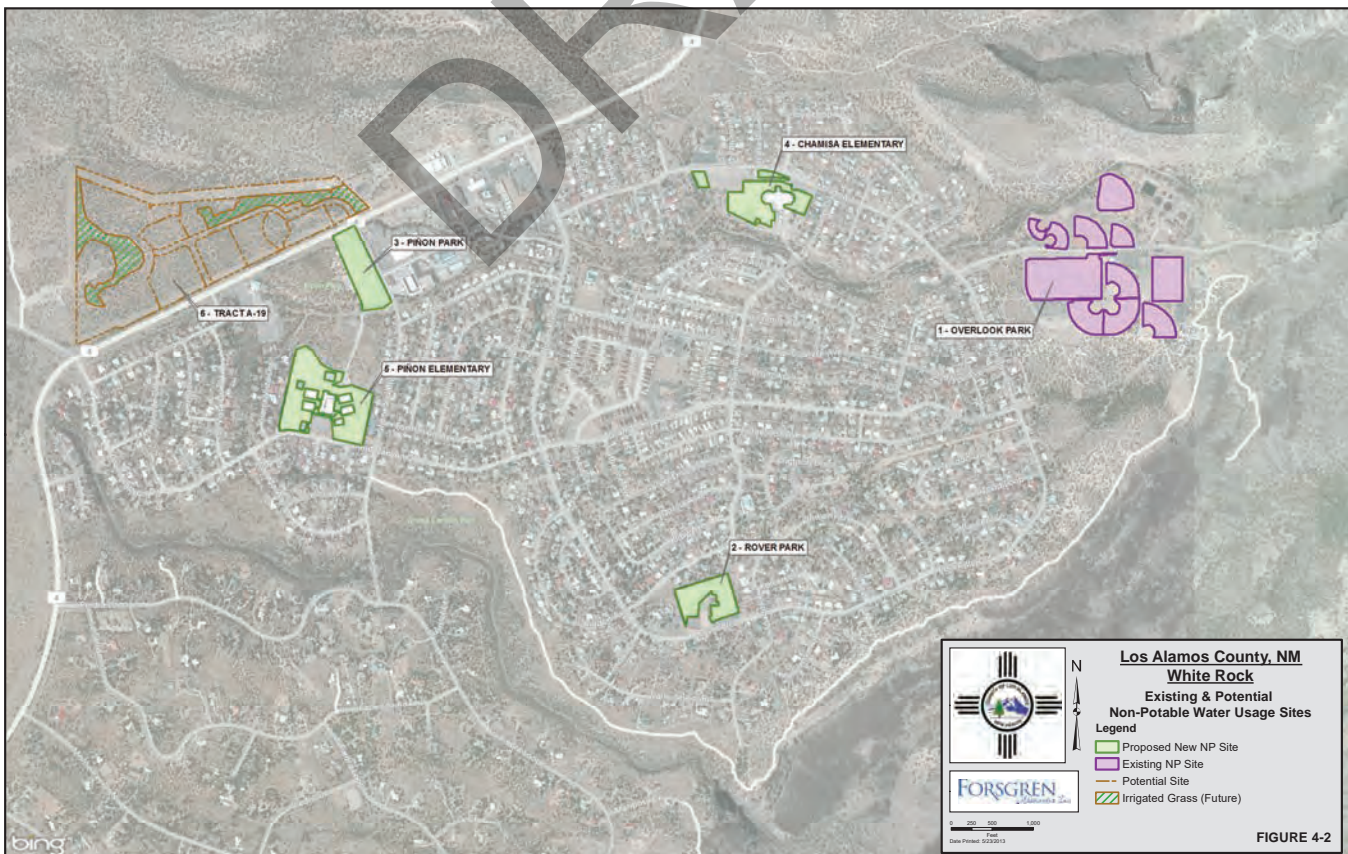
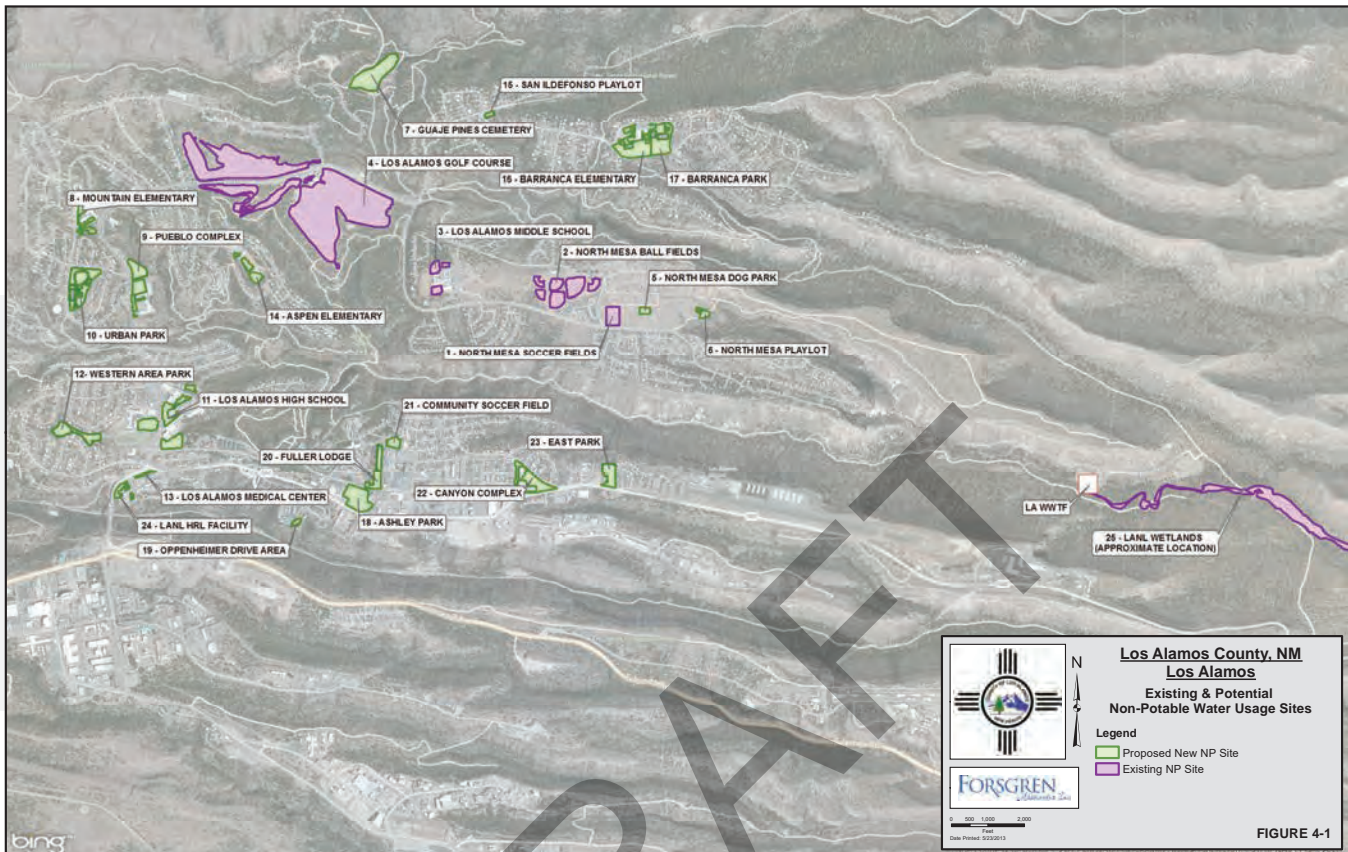
Figures from LANL Climatology 2021 Update.  
Precipitation (top), page 014, and Temperature  
(bottom), page 015.






# Appendix 2

Reclaimed Water Use Maps, page 019.



# Appendix 3

## NMOSE GPCD Calculator



# NMOSE GPCD CALCULATOR

Gallons per Capita - v2.05

Release Date: August 2015

This spreadsheet-based GPCD calculator is designed to help quantify and track water uses associated with water distribution systems. The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons on the left below. Descriptions of each sheet are also given below.

It should be noted that all the recorded data should be from actual metered results and should not include any estimates.

THE FOLLOWING KEY APPLIES THROUGHOUT:

	Value to be entered by user
	Dropdown box, pick from list
	Value calculated based on input data
	No longer available for input

Look for the following boxes that provide additional information: [Instructions](#) [Info](#)

Please begin by providing the following information, then proceed through each sheet:

NAME OF CITY OR UTILITY:

REPORTING YEARS: Enter the most recent reporting year:  Data can be entered back to:

NAME OF CONTACT PERSON:  E-MAIL:  TELEPHONE:  Ext.

SELECT THE REPORTING UNITS FOR VOLUME DATA:  For unit converter click here:

[Instructions &](#)  
[Census Data](#)  
[Single-Family](#)  
[Multi-Family](#)  
[ICI & Other Metered](#)  
[Reuse](#)  
[Total Diverted](#)  
[Reported Data](#)  
[Annual Performance](#)  
[Monthly Performance](#)  
[Definitions](#)

This sheet
Census data and the portal to get the data from the Census website
Single-Family residential gallons and population
Multi-Family residential gallons and population
Other data including Commercial, Industrial and Institutional [1.3] and Other metered [1.4] categories
Data related to water reuse projects
Total Production and Diverted Water
The calculated data graphical review of most common performance indicators
The calculated data graphical review of <b>annual</b> performance indicators
The calculated data graphical review of <b>monthly</b> performance indicators
Use this sheet to understand terms used in the audit process

All parties reserve the right to validate the data recorded in this document. This does not bind the OSE or the Utility to the results. It is a tool used for planning purposes.

questions or comments regarding the software please contact us at: [waternm@state.nm.us](mailto:waternm@state.nm.us)



ANNUAL DATA																			
<p><b>TABLE 3.6</b></p> <table> <tr><th>ANNUAL CONSUMPTION</th></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> </table>	ANNUAL CONSUMPTION										<p><b>TABLE 3.7</b></p> <table> <tr><th>ANNUAL CALCULATION</th></tr> <tr><td>486,289,000</td></tr> <tr><td>454,489,000</td></tr> <tr><td>449,769,000</td></tr> <tr><td>448,916,000</td></tr> <tr><td>468,826,000</td></tr> <tr><td>477,057,000</td></tr> <tr><td>399,561,000</td></tr> </table>	ANNUAL CALCULATION	486,289,000	454,489,000	449,769,000	448,916,000	468,826,000	477,057,000	399,561,000
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<p><b>TABLE 3.10</b> <a href="#">Info</a></p> <table> <tr><th>CALCULATED GROWTH RATE</th></tr> <tr><td>-0.15%</td></tr> <tr><td>3.05%</td></tr> <tr><td>-2.85%</td></tr> <tr><td>0.99%</td></tr> <tr><td>0.09%</td></tr> <tr><td>2.19%</td></tr> </table>	CALCULATED GROWTH RATE	-0.15%	3.05%	-2.85%	0.99%	0.09%	2.19%	<p><b>TABLE 3.11</b></p> <table> <tr><th>No. VACANT SFR CONNECTIONS</th></tr> <tr><td>439</td></tr> <tr><td>440</td></tr> <tr><td>427</td></tr> <tr><td>439</td></tr> <tr><td>435</td></tr> <tr><td>435</td></tr> <tr><td>425</td></tr> </table>	No. VACANT SFR CONNECTIONS	439	440	427	439	435	435	425			
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# Appendix 3

## NMOSE GPCD Calculator

DATA INPUT SHEET

Los Alamos County

Instructions

4. MULTI-FAMILY RESIDENTIAL (MFR)

Return to Instructions

MONTHLY DATA

2021 TO 2015

TABLE 4.1

MFR BILLED WATER CONSUMPTION (Monthly) (Gallons (US))

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	6,501,000	6,482,000	6,068,000	8,191,000	12,609,000	15,323,000	18,720,000	15,108,000	17,437,000	13,925,000	8,380,000	8,407,000
2020	7,246,000	5,849,000	5,509,000	8,738,000	13,253,000	16,780,000	22,092,000	17,890,000	17,114,000	17,717,000	10,938,000	7,628,000
2019	9,383,000	7,059,000	5,052,000	5,437,000	9,447,000	12,441,000	16,216,000	18,207,000	14,049,000	16,532,000	6,470,000	6,566,000
2018	7,850,000	7,671,000	6,773,000	8,594,000	12,839,000	15,130,000	1,818,000	16,172,000	13,195,000	14,063,000	10,619,000	7,533,000
2017	7,511,000	6,885,000	7,704,000	8,640,000	9,359,000	14,343,000	16,177,000	10,952,000	11,491,000	10,807,000	7,656,000	8,028,000
2016	7,411,000	7,150,000	7,348,000	8,212,000	9,441,000	14,538,000	16,383,000	11,475,000	11,225,000	8,891,000	8,431,000	8,278,000
2015	8,221,000	6,179,000	7,133,000	7,786,000	8,806,000	10,263,000	11,424,000	9,562,000	11,413,000	10,189,000	6,913,000	8,040,000

TABLE 4.2

NUMBER OF MFR UNITS (Monthly)

If only Current Number of Units is Known, put this number in Table 4.7

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	2,722	2,865	3,072	3,081	2,985	2,878	3,080	2,874	3,133	3,076	2,637	3,086
2020	3,048	2,851	3,174	3,055	3,060	2,773	3,069	2,872	2,716	3,076	2,778	3,073
2019	2,594	3,196	3,032	3,032	3,034	2,870	2,751	3,051	2,594	3,047	2,541	2,753
2018	2,969	2,951	2,768	3,050	2,883	3,068	2,145	3,057	2,889	2,584	4,394	2,923
2017	2,740	2,788	2,925	3,054	2,963	3,005	2,940	2,883	2,816	3,083	2,888	3,034
2016	4,658	5,447	5,442	5,470	5,444	5,438	2,886	2,797	2,970	2,762	2,696	3,179
2015	2,950	2,615	2,935	2,793	2,798	2,908	2,820	2,749	2,751	2,771	2,464	3,062

TABLE 4.3

MFR POPULATION (Monthly)

Formula = (Number of Units - Vacant MFR Connections) \* Ave. Household Size

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	5,773	6,106	6,587	6,608	6,384	6,137	6,607	6,126	6,730	6,597	5,574	6,620
2020	6,531	6,071	6,825	6,547	6,558	5,890	6,579	6,121	5,757	6,596	5,901	6,589
2019	5,490	6,893	6,511	6,511	6,515	6,133	5,856	6,555	5,490	6,546	5,367	5,860
2018	6,348	6,306	5,879	6,536	6,147	6,578	4,428	6,553	5,695	5,474	9,668	6,241
2017	5,820	5,932	6,251	6,552	6,340	6,437	6,286	6,153	5,997	6,643	6,165	6,505
2016	10,063	11,902	11,890	11,955	11,895	11,881	5,934	5,727	6,130	5,645	5,492	6,617
2015	6,334	5,553	6,299	5,968	5,979	6,236	6,031	5,865	5,870	5,917	5,201	6,595

TABLE 4.4

MFR GPCD CALCULATION (Monthly)

Formula = MFR Billed Water Consumption (Monthly) / MFR Population (Monthly)

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	36.33	37.91	29.72	41.32	63.71	83.23	91.39	79.56	86.36	68.09	50.11	40.97
2020	35.79	34.41	26.04	44.49	65.19	94.96	108.32	94.29	99.10	86.64	61.78	37.34
2019	55.13	36.58	25.03	27.84	46.77	67.62	89.33	89.60	85.30	81.47	40.19	36.14
2018	39.89	43.45	37.16	43.83	67.37	76.66	13.24	79.61	77.23	82.87	36.61	38.94
2017	41.63	41.45	39.76	43.96	47.62	74.27	83.02	67.42	63.87	52.48	41.40	39.81
2016	23.76	21.46	19.94	22.90	25.60	40.79	89.05	64.63	61.04	50.80	51.17	40.36
2015	41.87	39.74	36.53	43.49	47.51	54.86	61.11	52.59	64.81	55.55	44.30	39.33

ANNUAL DATA

TABLE 4.5

ANNUAL CONSUMPTION

137,151,000
150,754,000
126,859,000
122,257,000
119,553,000
118,783,000
105,929,000

TABLE 4.6

ANNUAL CALCULATION

2,957
2,962
2,875
2,858
2,927
4,099
2,801

TABLE 4.7

No. CURRENT UNITS


TABLE 4.8

ANNUAL UNIT CALCULATION

2,957
2,962
2,875
2,858
2,927
4,099
2,801

TABLE 4.9

MFR POPULATION

6,321
6,330
6,144
6,321
6,257
8,761
5,987

TABLE 4.10

VACANT MFR CONNECTIONS

245
245
238
245
242
339
232

TABLE 4.11

ANNUAL MFR GPCD

59.45
65.24
56.57
52.99
52.35
37.15
48.47

DATA INPUT SHEET

Los Alamos County

Instructions

5. INDUSTRIAL, COMMERCIAL & INSTITUTIONAL (ICI) AND OTHER METERED

Return to Instructions

MONTHLY DATA

2021 TO 2015

TABLE 5.1

ICI WATER CONSUMPTION (Gallons (US))

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	5,916,000	5,097,000	6,005,000	5,637,000	13,525,000	24,028,000	28,736,000	20,580,000	22,032,000	17,359,000	11,940,000	6,123,000
2020	16,625,000	65,260,000	6,334,000	5,160,000	8,703,000	16,485,000	27,267,000	18,090,000	16,828,000	19,216,000	11,109,000	6,557,000
2019	19,961,000	11,418,000	5,130,000	5,871,000	8,433,000	16,680,000	22,014,000	25,919,000	21,503,000	15,769,000	6,799,000	11,835,000
2018	6,376,000	5,717,000	5,412,000	9,357,000	17,879,000	23,243,000	3,611,000	23,126,000	19,906,000	27,173,000	12,499,000	11,932,000
2017	5,673,000	5,995,000	6,344,000	8,883,000	12,940,000	18,466,000	23,163,000	18,732,000	16,990,000	17,261,000	7,798,000	5,749,000
2016	6,200,000	6,246,000	6,539,000	7,168,000	11,087,000	24,165,000	25,662,000	21,137,000	15,923,000	16,848,000	10,968,000	8,419,000
2015	6,758,000	12,165,000	6,402,000	9,556,000	14,576,000	18,194,000	19,425,000	13,967,000	20,192,000	18,211,000	9,130,000	6,992,000

TABLE 5.2

OTHER METERED (Gallons (US))

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0

COMMENTS:

ANNUAL DATA

TABLE 5.3

ICI ANNUAL CONSUMPTION

166,978,000
217,634,000
171,332,000
166,231,000
147,994,000
160,362,000
155,568,000

TABLE 5.4

ICI GPCD

25.75
33.52
27.18
25.63
23.05
21.87
24.96

TABLE 5.5

ICI ANNUAL CALCULATION

166,978,000
217,634,000
171,332,000
166,231,000
147,994,000
160,362,000
155,568,000

TABLE 5.6

OTHER ANNUAL CONSUMPTION

N/A
N/A
N/A
N/A
N/A
N/A
N/A

TABLE 5.7

OTHER METERED GPCD

N/A
N/A
N/A
N/A
N/A
N/A
N/A

TABLE 5.8

OTHER ANNUAL CALCULATION

N/A
N/A
N/A
N/A
N/A
N/A
N/A

# Appendix 3

DATA INPUT SHEET
Info

6. REUSE
Return to Instructions

Los Alamos County
MONTHLY DATA
2021 TO 2015

TABLE 6.1  
REUSE DIVERSIONS (Monthly) (Gallons (US))

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	0	659,806	2,685,604	9,572,099	16,864,298	17,154,189	12,589,285	17,753,447	14,306,548	6,979,030	3,745,044	0
2020	0	0	158,030	9,585,767	18,637,523	19,375,844	19,800,444	18,055,444	12,950,770	10,681,570	2,753,536	2,740
2019	0	0	0	7,255,359	13,208,681	18,747,870	15,949,582	15,023,910	16,113,086	6,057,093	497,979	0
2018	2,083,164	985,278	3,155,615	16,677,017	19,927,309	20,682,187	19,665,932	11,649,607	12,530,167	2,965,837	4,127,865	0
2017	104,253	91	4,514,917	7,824,055	11,968,411	18,855,466	15,814,165	7,729,965	14,860,284	3,346,195	3,664,157	0
2016	806	8,354	3,097,391	3,788,420	7,380,421	19,528,481	17,224,228	3,095,964	5,733,467	11,322,306	3,576,394	79
2015	0	0	2,311,815	10,895,334	5,531,325	14,973,057	2,916,420	12,186,453	16,723,354	6,133,506	0	77

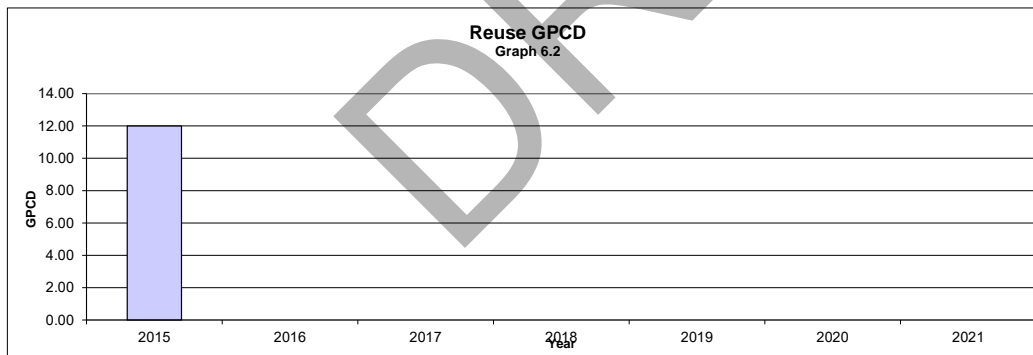
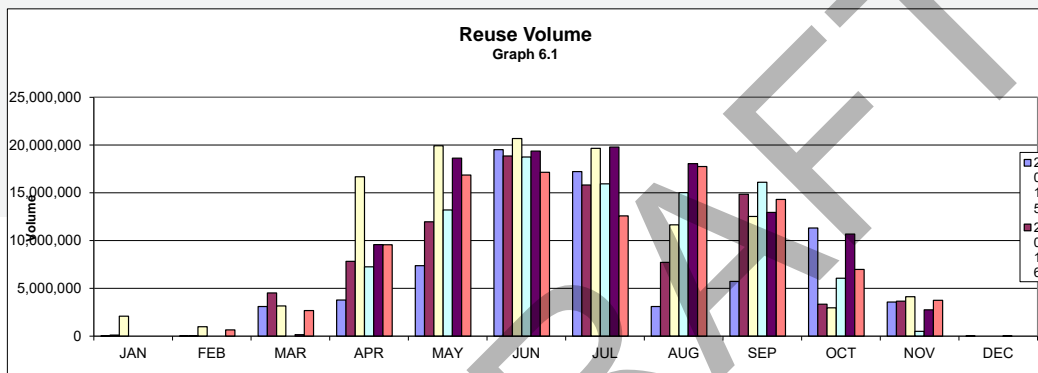
COMMENTS:

ANNUAL DATA

TABLE 6.2  
REUSE ANNUAL DIVERSIONS

TABLE 6.3  
REUSE GPCD

	#REF!
	N/A
	N/A
	N/A
	N/A
	N/A
	12.00



NMOSE GPCD Calculator v2.02

# Appendix 3

## NMOSE GPCD Calculator

DATA INPUT SHEET

7. TOTAL WATER DIVERTED AND SUPPLIED

Return to Instructions

Los Alamos County

### MONTHLY DATA

TABLE 7.1

2021 TO 2015

TOTAL WATER DIVERTED (Monthly) (Gallons (US))												
Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	73,126,163	64,467,149	72,039,181	85,991,658	136,692,116	138,643,972	129,966,482	133,134,069	125,684,832	90,377,271	72,110,779	66,698,497
2020	67,401,950	62,914,565	69,410,979	85,475,833	141,942,322	146,229,622	154,420,672	154,372,810	127,979,713	115,992,409	74,356,386	74,325,330
2019	70,473,755	62,897,063	64,818,312	74,593,227	101,156,217	140,633,414	143,625,950	137,673,036	128,481,675	85,749,242	69,837,534	70,241,727
2018	69,036,758	60,505,310	66,999,126	101,119,506	159,786,139	165,186,443	162,518,990	129,189,843	121,269,403	86,986,823	73,342,136	70,664,136
2017	69,336,000	60,153,000	70,690,000	82,063,000	113,586,000	143,975,000	148,734,000	121,019,000	122,771,425	85,161,000	74,000,000	69,876,653
2016	76,266,000	77,689,000	73,348,000	78,145,000	110,585,000	150,103,000	164,760,000	105,829,000	107,358,000	106,728,000	78,084,000	72,039,000
2015	68,453,500	57,912,300	69,273,500	83,021,700	94,454,200	124,076,300	105,430,500	115,114,400	123,296,600	98,968,300	76,643,800	76,019,000

TABLE 7.2

info

IMPORTED WATER (Monthly)(Gallons (US))												
Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 7.3

info

EXPORTED WATER (Monthly) (Gallons (US))												
Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	21,112,700	18,411,100	19,950,700	20,344,529	23,727,100	20,144,000	23,172,900	23,370,500	24,712,200	18,391,900	23,965,700	22,221,900
2020	20,406,100	22,229,600	20,068,800	16,865,200	20,368,900	19,521,100	22,977,900	21,203,500	26,372,800	27,992,200	21,102,400	35,208,600
2019	21,646,200	17,362,400	18,404,100	18,172,800	20,256,000	21,564,900	29,475,500	30,079,600	24,763,500	19,371,800	31,045,600	23,388,700
2018	20,572,860	16,372,840	18,588,020	18,810,720	22,828,000	24,832,730	27,057,100	28,402,800	24,508,400	22,007,000	27,628,200	23,595,000
2017	24,867,700	17,430,940	17,984,950	17,208,200	19,855,950	25,054,470	27,270,000	26,115,100	23,745,100	26,430,000	25,385,700	24,122,880
2016	25,133,820	27,368,200	20,431,210	17,601,790	18,697,580	20,181,160	26,313,280	28,034,800	28,499,990	24,974,070	29,726,740	19,692,900
2015	26,171,490	17,246,620	18,442,090	17,205,510	17,378,210	17,004,930	31,891,120	14,443,150	26,247,120	28,905,780	25,658,300	24,953,020

TABLE 7.4

Formula = Total Water Diverted + Imported water - Exported Water

TOTAL WATER SUPPLY (Monthly) (Gallons (US))												
Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	52,013,463	46,056,049	52,088,481	65,647,129	112,965,016	118,499,972	106,793,582	109,763,569	100,972,632	71,985,371	48,145,079	44,476,597
2020	46,995,850	40,684,965	49,342,179	68,610,633	121,573,422	126,708,622	131,442,772	133,168,310	101,606,913	88,000,209	53,253,986	39,116,730
2019	48,827,555	45,534,663	46,414,212	56,420,427	80,900,217	119,068,514	114,150,450	107,593,436	103,718,175	66,377,442	38,791,934	46,853,027
2018	48,463,898	44,132,470	48,411,106	82,308,768	136,958,139	140,353,713	135,461,890	100,787,043	96,761,003	64,979,823	45,713,936	47,069,136
2017	44,468,300	42,722,060	52,705,050	64,854,800	93,730,050	118,920,530	121,464,000	94,903,900	99,026,325	58,731,000	48,614,300	45,753,773
2016	51,132,180	50,320,800	52,916,790	60,543,210	91,887,420	129,921,840	138,446,720	77,794,200	78,858,010	81,753,930	48,357,260	52,346,100
2015	42,282,010	40,665,680	50,831,410	65,816,190	77,075,990	107,071,370	73,539,380	100,671,250	97,049,480	70,062,520	50,985,500	51,065,980

Table 7.5

SYSTEM TOTAL GPCD (Monthly)												
Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2021	94	93	95	123	205	222	194	199	189	131	90	81
2020	85	82	89	129	220	237	238	241	190	160	100	71
2019	91	94	87	109	151	230	213	201	200	124	75	88
2018	88	89	88	154	249	263	246	183	182	118	86	85
2017	82	87	97	123	172	225	223	174	188	108	92	84
2016	82	89	85	100	148	216	222	125	131	131	80	84
2015	80	85	96	128	146	209	139	190	189	132	100	96

COMMENTS:

### ANNUAL DATA

TABLE 7.6

ANNUAL TOTAL DIVERTED

1,188,932,169
1,274,822,591
1,150,181,152
1,266,604,613
1,161,365,078
1,200,934,000
1,092,664,100

TABLE 7.7

ANNUAL TOTAL DIVERTED CALC

1,188,932,169
1,274,822,591
1,150,181,152
1,266,604,613
1,161,365,078
1,200,934,000
1,092,664,100

TABLE 7.8

ANNUAL TOTAL IMPORTED

N/A
N/A
N/A
N/A
N/A
N/A
N/A

TABLE 7.9

ANNUAL TOTAL IMPORT CALC

N/A
N/A
N/A
N/A
N/A
N/A
N/A

TABLE 7.10

ANNUAL TOTAL EXPORTED

259,525,229
274,317,100
275,531,100
275,203,670
275,470,990
286,655,540
265,547,340

TABLE 7.11

ANNUAL TOTAL EXPORT CALC

259,525,229
274,317,100
275,531,100
275,203,670
275,470,990
286,655,540
265,547,340

TABLE 7.12

ANNUAL TOTAL WATER SUPPLY

929,406,940
1,000,505,491
874,650,052
991,400,943
885,894,088
914,278,460
827,116,760

TABLE 7.13

TOTAL POP. EST.

17,764
17,791
17,268
17,769
17,593
20,087
17,073

TABLE 7.14

SYSTEM TOTAL GPCD

143.35
154.08
138.77
152.86
137.96
124.70
132.73



# Appendix 3

## 8. SUMMARY GPCD REPORTED DATA

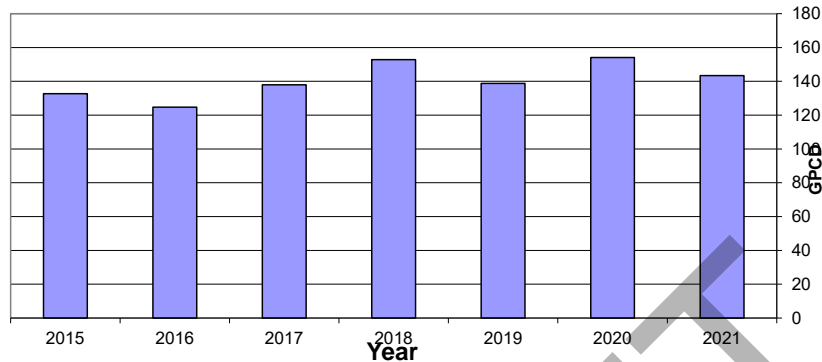
Los Alamos County

2021 To: 2015

### ANNUAL

Year	SYSTEM GPCD
2021	143.35
2020	154.08
2019	138.77
2018	152.86
2017	137.96
2016	124.70
2015	132.73

### ANNUAL - SYSTEM TOTAL GPCD



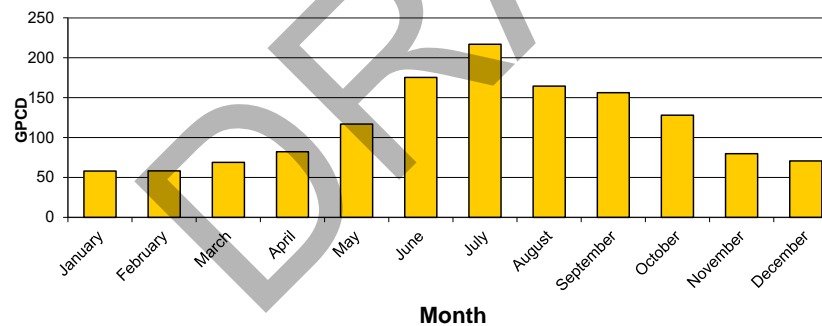
### MONTHLY

Month	SFR GPCD
January	58.13
February	58.30
March	68.83
April	82.24
May	116.85
June	175.36
July	216.82
August	164.52
September	156.21
October	128.09
November	79.76
December	70.70

Year 2017

Peak/Ave 1.89

### Monthly - Single-Family Residential GPCD Sector Specific Population

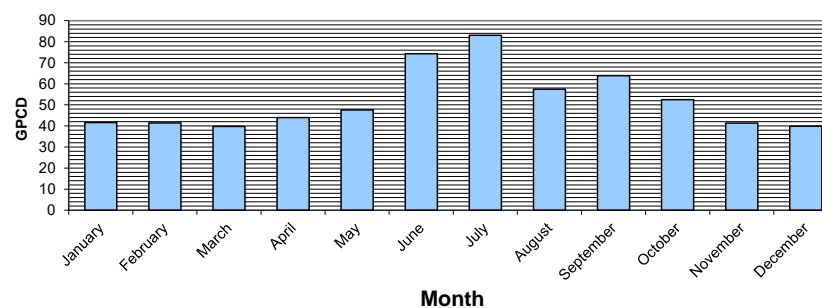


YEAR 2017

Month	MFR GPCD
January	41.63
February	41.45
March	39.76
April	43.96
May	47.62
June	74.27
July	83.02
August	57.42
September	63.87
October	52.48
November	41.40
December	39.81

Peak/Ave 1.59

### Monthly - Multi-Family Residential GPCD Sector Specific Population



YEAR 2017

# Appendix 3

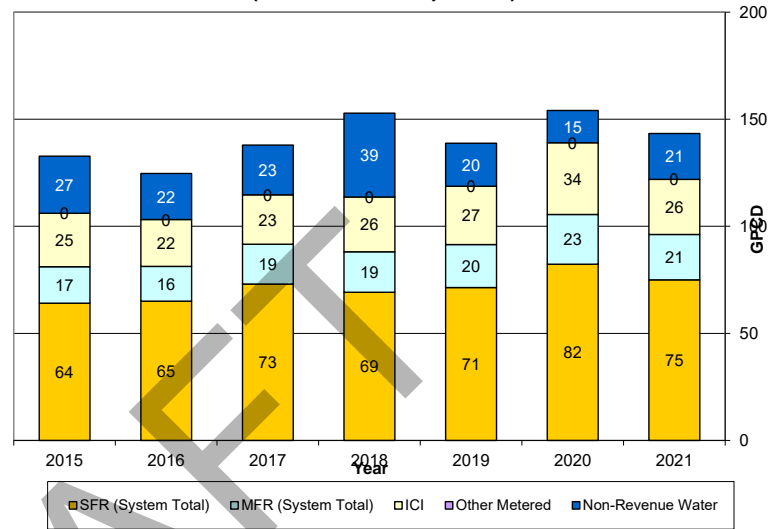
## 9. System Total Annual Reporting Performance

Overall Annual GPCD (based on Total Population)

	SFR (System Total)	MFR (System Total)	ICI	Other Metered	Non-Revenue Water	Total Supplied	Non-Revenue Volume Million Gallons (US)
Year	On Graph?	Yes	Yes	Yes	Yes		
2021	75.00	21.15	25.75	N/A	21.44	#REF!	#REF!
2020	82.31	23.22	33.52	N/A	15.03	154.08	97.63
2019	71.36	20.13	27.18	N/A	20.10	138.77	126.69
2018	69.22	18.85	25.63	N/A	39.16	152.86	254.00
2017	73.01	18.62	23.05	N/A	23.28	137.96	149.52
2016	65.07	16.20	21.87	N/A	21.56	124.70	158.08
2015	64.12	17.00	24.96	N/A	26.65	144.72	166.06

Los Alamos County
2021 to 2015

Annual Analysis of GPCD - Viewer  
(based on Total Population)



## 10. Monthly Reporting Performance

Choose Year for Monthly Analysis

2017

Choose Sector

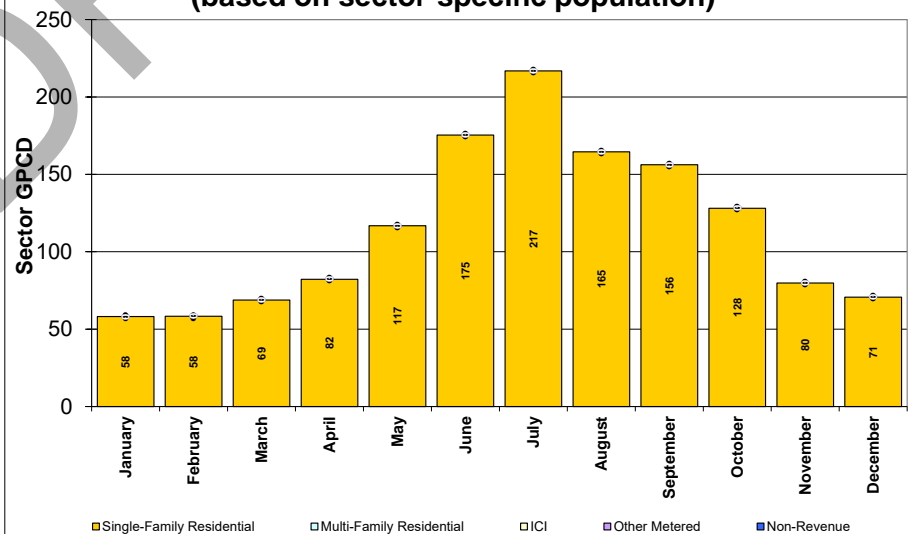
Single-Family Residential

Monthly GPCD

	Single-Family Residential	Multi-Family Residential	ICI	Other Metered	Non-Revenue
Month	GPCD	GPCD	GPCD	GPCD	GPCD
JAN	58.13	41.63	10.40	0.00	18.67
FEB	58.30	41.45	12.17	0.00	21.56
MAR	68.83	39.76	11.63	0.00	26.28
APR	82.24	43.96	16.83	0.00	41.87
MAY	116.85	47.62	23.73	0.00	54.15
JUN	175.36	74.27	34.99	0.00	47.54
JUL	216.82	83.02	42.47	0.00	24.92
AUG	164.52	57.42	34.35	0.00	12.15
SEP	158.21	63.87	32.19	0.00	32.13
OCT	128.09	52.48	31.65	0.00	24.36
NOV	79.76	41.40	14.77	0.00	13.69
DEC	70.70	39.81	10.54	0.00	11.99

Los Alamos County
2021 to 2015

Monthly Analysis of GPCD - Viewer  
(based on sector-specific population)



# Appendix 4

## AWWA Audit

### AWWA Free Water Audit Software v5.0

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This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format, and is not meant to take the place of a full-scale, comprehensive water audit format.

Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targetting loss reduction levels

The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

**Please begin by providing the following information**

Name of Contact Person:

Email Address:

Telephone (incl Ext.):

Name of City / Utility:

City/Town/Municipality:

State / Province:

Country:

Year:

Start Date:  Enter MM/YYYY numeric format

End Date:  Enter MM/YYYY numeric format

Audit Preparation Date:

Volume Reporting Units:

PWSID / Other ID:

**The following guidance will help you complete the Audit**

All audit data are entered on the [Reporting Worksheet](#)

Value can be entered by user

Value calculated based on input data

These cells contain recommended default values

Use of Option (Radio) Buttons: ☒ 0.25% ☐

Select the default percentage by choosing the option button on the left


To enter a value, choose this button and enter a value in the cell to the right

**The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page**

<b>Instructions</b> The current sheet. Enter contact information and basic audit details (year, units etc)	<b>Reporting Worksheet</b> Enter the required data on this worksheet to calculate the water balance and data grading	<b>Comments</b> Enter comments to explain how values were calculated or to document data sources	<b>Performance Indicators</b> Review the performance indicators to evaluate the results of the audit	<b>Water Balance</b> The values entered in the Reporting Worksheet are used to populate the Water Balance	<b>Dashboard</b> A graphical summary of the water balance and Non-Revenue Water components
<b>Grading Matrix</b> Presents the possible grading options for each input component of the audit	<b>Service Connection Diagram</b> Diagrams depicting possible customer service connection line configurations	<b>Definitions</b> Use this sheet to understand the terms used in the audit process	<b>Loss Control Planning</b> Use this sheet to interpret the results of the audit validity score and performance indicators	<b>Example Audits</b> Reporting Worksheet and Performance Indicators examples are shown for two validated audits	<b>Acknowledgements</b> Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: [wlc@awwa.org](mailto:wlc@awwa.org)

# Appendix 4



**AWWA Free Water Audit Software:**  
**Reporting Worksheet**

WAS v5.0  
American Water Works Association.

? Click to access definition

+ Click to add a comment

**Water Audit Report for:** Los Alamos County (NM3500115)  
**Reporting Year:** 2021 / 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

**WATER SUPPLIED**

Volume from own sources:	+	?	7	1,189.000	MG/Yr
Water imported:	+	?	n/a	0.000	MG/Yr
Water exported:	+	?	8	260.000	MG/Yr

---

**WATER SUPPLIED:** 929.000 MG/Yr

**AUTHORIZED CONSUMPTION**

Billed metered:	+	?	8	790.395	MG/Yr
Billed unmetered:	+	?	n/a	0.000	MG/Yr
Unbilled metered:	+	?	n/a	0.000	MG/Yr
Unbilled unmetered:	+	?	?	11.613	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

**AUTHORIZED CONSUMPTION:** 802.008 MG/Yr

---

**WATER LOSSES (Water Supplied - Authorized Consumption)** 126.993 MG/Yr

**Apparent Losses**

Unauthorized consumption: 2.323 MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+	?	7	16.131	MG/Yr
Systematic data handling errors:	+	?	?	1.976	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

**Apparent Losses:** 20.429 MG/Yr

---

**Real Losses (Current Annual Real Losses or CARL)**

**Real Losses = Water Losses - Apparent Losses:** 106.564 MG/Yr

---

**WATER LOSSES:** 126.993 MG/Yr

---

**NON-REVENUE WATER**

**NON-REVENUE WATER:** 138.605 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

**SYSTEM DATA**

Length of mains:	+	?	8	167.0	miles
Number of <u>active AND inactive</u> service connections:	+	?	7	7,111	
Service connection density:	?	?	?	43	conn./mile main

Are customer meters typically located at the curbside or property line? Yes (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line: 0 feet

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 65.0 psi

---

**COST DATA**

Total annual cost of operating water system:	+	?	10	\$21,424,928	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	9	\$6.02	\$/1000 gallons (US)
Variable production cost (applied to Real Losses):	+	?	5	\$461.38	\$/Million gallons

☐ Use Customer Retail Unit Cost to value real losses

---

**WATER AUDIT DATA VALIDITY SCORE:**

\*\*\* YOUR SCORE IS: 72 out of 100 \*\*\*

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

**PRIORITY AREAS FOR ATTENTION:**

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources

2: Variable production cost (applied to Real Losses)

3: Unauthorized consumption

074

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Water and Energy Conservation Plan

# Appendix 4

**AWWA Free Water Audit Software:**  
**System Attributes and Performance Indicators**

WAS v5.0  
 American Water Works Association.

Water Audit Report for: Los Alamos County (NM3500115)  
 Reporting Year: 2021 1/2020 - 12/2020

\*\*\* YOUR WATER AUDIT DATA VALIDITY SCORE IS: 72 out of 100 \*\*\*

System Attributes:

Apparent Losses:	20.429	MG/Yr
+ Real Losses:	106.564	MG/Yr
= Water Losses:	126.993	MG/Yr
<div style="display: flex; align-items: center;"> <div style="background-color: #007bff; color: white; padding: 2px 5px; margin-right: 5px;">?</div>             Unavoidable Annual Real Losses (UARL):         </div> <div style="text-align: right;">46.74 MG/Yr</div>		
Annual cost of Apparent Losses:	\$122,983	
Annual cost of Real Losses:	\$641,512	Valued at Customer Retail Unit Cost
		Return to Reporting Worksheet to change this assumption

Performance Indicators:

Financial:	{	<div style="display: flex; justify-content: space-between; align-items: center;"> <div>Non-revenue water as percent by volume of Water Supplied:</div> <div style="text-align: right;">14.9%</div> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>Non-revenue water as percent by cost of operating system:</div> <div style="text-align: right;">3.9%</div> <div style="text-align: right; font-size: 0.8em;">Real Losses valued at Customer Retail Unit Cost</div> </div>	
Operational Efficiency:	{	<div style="display: flex; justify-content: space-between; align-items: center;"> <div>Apparent Losses per service connection per day:</div> <div style="text-align: right;">7.87 gallons/connection/day</div> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>Real Losses per service connection per day:</div> <div style="text-align: right;">41.06 gallons/connection/day</div> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>Real Losses per length of main per day*:</div> <div style="text-align: right;">N/A</div> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>Real Losses per service connection per day per psi pressure:</div> <div style="text-align: right;">0.63 gallons/connection/day/psi</div> </div>	
		<div style="display: flex; justify-content: space-between; align-items: center;"> <div>From Above, Real Losses = Current Annual Real Losses (CARL):</div> <div style="text-align: right;">106.56 million gallons/year</div> </div>	
		<div style="display: flex; align-items: center;"> <div style="background-color: #007bff; color: white; padding: 2px 5px; margin-right: 5px;">?</div>             Infrastructure Leakage Index (ILI) [CARL/UARL]:         </div> <div style="text-align: right;">2.28</div>	

\* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

# Appendix 4

	<b>AWWA Free Water Audit Software:</b> <b>User Comments</b>	WAS v5.0 American Water Works Association. Copyright © 2014. All Rights Reserved.
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Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

General Comment:	
------------------	--

Audit Item	Comment
<a href="#">Volume from own sources:</a>	Total Water Produced for all for 2021 divided by 1,000,000
<a href="#">Vol. from own sources: Master meter error adjustment:</a>	Additional meter accuracy data for production wells is needed to improve this value. Calculation only includes 2 of 12 production wells. Source: PureOps - Los Alamos County - Meter Testing Report 17.04 - C.PDF PureOps tested 21 meters in 2016, three of which were production wells (Otowi 1 and 4 and Pajarito 2). The Otowi Well 1 was highly inaccurate (only registering 29.8% of the flow) and therefore replaced. In order to not include an extreme outlier value, the remaining two values were averaged. (Value of all three = 76.9% vs. value of just two = 100.4%)
<a href="#">Water imported:</a>	None (Los Alamos County has a contract with the United States Bureau of Reclamation for 1,200 acre-feet of water per year from the San Juan-Chama Project, but this water has not been brought online).
<a href="#">Water imported: master meter error adjustment:</a>	Not applicable
<a href="#">Water exported:</a>	Put the LANL water sale as exported water.
<a href="#">Water exported: master meter error adjustment:</a>	Not applicable
<a href="#">Billed metered:</a>	Total water sales, Kgal: total number added 12 months up and divided by 1,000
<a href="#">Billed unmetered:</a>	None
<a href="#">Unbilled metered:</a>	None
<a href="#">Unbilled unmetered:</a>	Calculated
<a href="#">Unauthorized consumption:</a>	
<a href="#">Customer metering inaccuracies:</a>	No data (no customer meter testing was conducted in 2021).
<a href="#">Systematic data handling errors:</a>	
<a href="#">Length of mains:</a>	122 miles of water main pipeline + 45 miles of transmission main = 167
<a href="#">Number of active AND inactive service connections:</a>	Average of 12 months of billed locations: total units / locations
<a href="#">Average length of customer service line:</a>	Answer yes to question regarding whether customer meters are located at the curb. From email from James Alarid to Amy Ewing on October 9, 2017: "the vast majority are at the curb."
<a href="#">Average operating pressure:</a>	From email from James Alarid to Amy Ewing: "Average system operating pressure is 65 psi."
<a href="#">Total annual cost of operating water system:</a>	Total cost for Water Production + total cost for Water Distribution - Less: Interdept Water
<a href="#">Customer retail unit cost (applied to Apparent Losses):</a>	Los Alamos County Water Rate
<a href="#">Variable production cost (applied to Real Losses):</a>	Total Water Production Electric Bill divided by Volume from own sources.



# Appendix 4

AWWA Free Water Audit Software: Water Balance

WAS v5.0

American Water Works Association.

Water Audit Report for: Los Alamos County (NM3500115)

Reporting Year: 2021

1/2020 - 12/2020

Data Validity Score: 72

Own Sources (Adjusted for known errors)  1,189.000	Water Exported 260.000	Billed Water Exported				
	Water Supplied  929.000	Authorized Consumption  802.008	Billed Authorized Consumption  790.395	Billed Metered Consumption (water exported is removed)  790.395	Revenue Water  790.395	
				Billed Unmetered Consumption  0.000		
			Unbilled Authorized Consumption  11.613	Unbilled Metered Consumption  0.000	Non-Revenue Water (NRW)  138.605	
				Unbilled Unmetered Consumption  11.613		
		Water Losses  126.993	Apparent Losses  20.429	Unauthorized Consumption  2.323		
				Customer Metering Inaccuracies  16.131		
				Systematic Data Handling Errors  1.976		
				Real Losses  106.564		Leakage on Transmission and/or Distribution Mains Not broken down
	Leakage and Overflows at Utility's Storage Tanks Not broken down					
Leakage on Service Connections Not broken down						
Water Imported  0.000						

# Appendix 4



## AWWA Free Water Audit Software: Determining Water Loss Standing

WAS v5.0

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Water Audit Report for: Los Alamos County (NM3500115)

Reporting Year: 2021 1/2020 - 12/2020

Data Validity Score: 72

### Water Loss Control Planning Guide

Functional Focus Area	Water Audit Data Validity Level / Score				
	Level I (0-25)	Level II (26-50)	Level III (51-70)	Level IV (71-90)	Level V (91-100)
Audit Data Collection	Launch auditing and loss control team; address production metering deficiencies	Analyze business process for customer metering and billing functions and water supply operations. Identify data gaps.	Establish/revise policies and procedures for data collection	Refine data collection practices and establish as routine business process	Annual water audit is a reliable gauge of year-to-year water efficiency standing
Short-term loss control	Research information on leak detection programs. Begin flowcharting analysis of customer billing system	Conduct loss assessment investigations on a sample portion of the system: customer meter testing, leak survey, unauthorized consumption, etc.	Establish ongoing mechanisms for customer meter accuracy testing, active leakage control and infrastructure monitoring	Refine, enhance or expand ongoing programs based upon economic justification	Stay abreast of improvements in metering, meter reading, billing, leakage management and infrastructure rehabilitation
Long-term loss control		Begin to assess long-term needs requiring large expenditure: customer meter replacement, water main replacement program, new customer billing system or Automatic Meter Reading (AMR) system.	Begin to assemble economic business case for long-term needs based upon improved data becoming available through the water audit process.	Conduct detailed planning, budgeting and launch of comprehensive improvements for metering, billing or infrastructure management	Continue incremental improvements in short-term and long-term loss control interventions
Target-setting			Establish long-term apparent and real loss reduction goals (+10 year horizon)	Establish mid-range (5 year horizon) apparent and real loss reduction goals	Evaluate and refine loss control goals on a yearly basis
Benchmarking			Preliminary Comparisons - can begin to rely upon the Infrastructure Leakage Index (ILI) for performance comparisons for real losses (see below table)	Performance Benchmarking - ILI is meaningful in comparing real loss standing	Identify Best Practices/ Best in class - the ILI is very reliable as a real loss performance indicator for best in class service

For validity scores of 50 or below, the shaded blocks should not be focus areas until better data validity is achieved.

Once data have been entered into the Reporting Worksheet, the performance indicators are automatically calculated. How does a water utility operator know how well his or her system is performing? The AWWA Water Loss Control Committee provided the following table to assist water utilities in gauging an approximate Infrastructure Leakage Index (ILI) that is appropriate for their water system and local conditions. The lower the amount of leakage and real losses that exist in the system, then the lower the ILI value will be.

**Note:** this table offers an approximate guideline for leakage reduction target-setting. The best means of setting such targets include performing an economic assessment of various loss control methods. However, this table is useful if such an assessment is not possible.

### General Guidelines for Setting a Target ILI (without doing a full economic analysis of leakage control options)

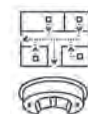
Target ILI Range	Financial Considerations	Operational Considerations	Water Resources Considerations
1.0 - 3.0	Water resources are costly to develop or purchase; ability to increase revenues via water rates is greatly limited because of regulation or low ratepayer affordability.	Operating with system leakage above this level would require expansion of existing infrastructure and/or additional water resources to meet the demand.	Available resources are greatly limited and are very difficult and/or environmentally unsound to develop.
>3.0 - 5.0	Water resources can be developed or purchased at reasonable expense; periodic water rate increases can be feasibly imposed and are tolerated by the customer population.	Existing water supply infrastructure capability is sufficient to meet long-term demand as long as reasonable leakage management controls are in place.	Water resources are believed to be sufficient to meet long-term needs, but demand management interventions (leakage management, water conservation) are included in the long-term
>5.0 - 8.0	Cost to purchase or obtain/treat water is low, as are rates charged to customers.	Superior reliability, capacity and integrity of the water supply infrastructure make it relatively immune to supply shortages.	Water resources are plentiful, reliable, and easily extracted.
Greater than 8.0	Although operational and financial considerations may allow a long-term ILI greater than 8.0, such a level of leakage is not an effective utilization of water as a resource. Setting a target level greater than 8.0 - other than as an incremental goal to a smaller long-term target - is discouraged.		
Less than 1.0	If the calculated Infrastructure Leakage Index (ILI) value for your system is 1.0 or less, two possibilities exist. a) you are maintaining your leakage at low levels in a class with the top worldwide performers in leakage control. b) A portion of your data may be flawed, causing your losses to be greatly understated. This is likely if you calculate a low ILI value but do not employ extensive leakage control practices in your operations. In such cases it is beneficial to validate the data by performing field measurements to confirm the accuracy of production and customer meters, or to identify any other potential sources of error in the data.		

# ADDENDUM

## Appendix 5

### Public Information Campaign Example

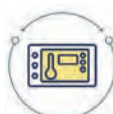
Bill Insert and Facebook posts for November 2022



Test fire plans  
Pruebe sus planes contra incendios



Move clocks back  
Retrase los relojes



Change HVAC schedule  
Cambie el horario del termostato



Update irrigation schedule  
Actualice sus horarios de riego

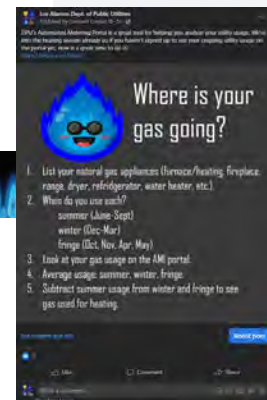


#### Save \$ with these Natural Gas Conservation Tips:

- » Prepare a week's worth of meals to maximize residual oven and stove heat.
- » Lower water heater temperature to 120F.
- » Use cold water to wash laundry.
- » Cover bare floors with rugs or carpets.
- » Open window curtains to let the winter sun and heat in during the day (be sure to close them at night).
- » Set a thermostat schedule: 68F when home and 62F at night or when away.
- » Change HVAC filters monthly during peak usage. A dirty system works harder.
- » Clean heating vents and move furniture or drapes if covering vents.
- » Fireplaces: keep damper closed UNLESS a fire is going. 8% of heat loss is straight up the chimney.
- » Put your ceiling fan in clockwise to distribute heat.
- » Replace lighter curtains with thicker drapes during colder months.
- » Seal air leaks around doors, windows, behind outlets, around plumbing (through floors and cabinets).
- » Insulate (properly)! Start with hot water pipes and water heaters, move to the attic, then look at crawlspaces/basements.
- » Replace with more efficient gas appliances.

#### Ahorre \$ con estos consejos de conservación de gas natural:

- » Prepare comidas para toda la semana a fin de maximizar el calor residual del horno y la estufa.
- » Reduzca la temperatura del calentador de agua a 120 °F (50 °C).
- » Lave su ropa con agua fría.
- » Cubra los pisos expuestos con alfombras o tapetes.
- » Abra las cortinas para dejar entrar el sol y calor del día durante el verano (recuerde cerrarlas por la noche).
- » Programe un horario en su termostato: 68 °F (20 °C) cuando esté en casa y 62 °F (17 °C) por las noches o cuando salga.
- » Cambie los filtros de su sistema de calefacción y aire acondicionado cada mes durante los períodos de más uso. Un sistema sucio consume más energía.
- » Limpie los respiraderos de la calefacción y mueva los muebles o las persianas que los cubran.
- » Chimeneas: mantenga el regulador cerrado A MENOS que tenga un fuego encendido. El 8% del calor perdido sale directamente por la chimenea.
- » Ajuste la rotación de su ventilador de techo a favor de las agujas del reloj para distribuir el calor.
- » Reemplace las cortinas ligeras con otras más gruesas durante los meses más fríos.
- » Selle las fugas de aire alrededor de puertas y ventanas, detrás de tomacorrientes, alrededor de tuberías (a través de pisos y gabinetes).
- » ¡Aplique aislamiento (correctamente)! Comience con las tuberías de agua caliente y los calentadores de agua, continúe con el ático y luego vea el sótano o el espacio debajo de la casa.
- » Reemplace los aparatos a gas con modelos más eficientes.



Tankless Natural Gas	Natural Gas	Electric Resistance
Full-Fuel-Cycle Energy Consumption*: 8.6 MMBtu annually	Full-Fuel-Cycle Energy Consumption*: 26.64 MMBtu annually	Full-Fuel-Cycle Energy Consumption*: 49.8 MMBtu annually
CO2 Emissions*: 1.1 tons annually	CO2 Emissions*: 1.5 tons annually	CO2 Emissions*: 3.3 tons annually
* on average		

Source: American Gas Association: Efficient Natural Gas

# ADDENDUM

## Appendix 6

### Jemez y Sangre Regional Water Plan Project Updates

Reference Appendix 8-A of the Regional plan, pages 1 and 2 for correlated project worksheets.

JYS ID	Project Name	Project Description	Cost	Funding Source	Schedule / Status
1	Otowi Well #2 (Pajarito Well #6)	Construction – construction of the new well house, electric gear, site improvements and equipping with pump/motor.	Design \$240,000 Construction \$3,700,000	Design DPU CIP Construction -DWSRL	Ongoing, Completion Spring 2023
9	Otowi Well #2 (Pajarito Well #6)	Design & Environmental – design build for the permitting, drilling and development of the new well.	\$4,500,000	DPU CIP	Complete July 2019
10	Ski Basin Water Supply (aka. Jemez Mountain Fire Protection Project, aka. Camp May Waterline Project)	Install a new 500,000 gallon tank, four booster stations and 23,000 feet of 8" waterline along West Jemez Road and Camp May Road to convey potable water to the Pajarito Ski Lodge area for domestic use, fire protection and snow making.	\$11,000 (estimated)	\$2 million – County \$9 million -Grant/private	<b>April 2013</b> Legislature approved special appropriations Grant for \$375,000 <b>October 3, 2014</b> Grant agreement executed \$375,000 <b>September 2, 2015</b> RFP issued Design/Environmental docs. <b>December 2, 2015</b> Design/Environmental Contract Executed <b>March 1, 2018</b> USFS NEPA Scoping Meeting – Public Meeting UNM/LA <b>June 6, 2018</b> Design/Environmental Contract Complete/End <b>April 11, 2019</b> LAC Easement Request to LANL #1 <b>March 1, 2022</b> USFS Decision Notice FONSI Issued <b>March 25, 2022</b> DOE FONSI Issued <b>April 4, 2022</b> LAC Easement Request to LANL #2 Construction start – Dependent on funding
12	White Rock WRRF (aka. White Rock Wastewater Treatment Plant)	Design - The project will completely replace the existing trickling filter plant which was constructed in 1965. The new reclamation facility will include a new headworks, oxidation ditch, secondary clarifiers, ultra-violet disinfection, filtration and sludge digesters.	Design - 2.3 million	CWSRL	Complete 2020
15	New Bay Non-Potable Water Tank	The project will construct a new 833,000 gallon steel storage tank adjacent to the existing Bayo Booster Station. The new tank will allow expansion of non-potable water use in Los Alamos.	Phase I - \$590,000 Phase II - \$3,200,000	Phase I WTB Grant – 60% WTB Loan – 40% Phase II WTB Grant – 60% WTB Loan – 40%	Phase I ongoing, completion January 2023. Phase II Construction Summer & Fall 2023

# ADDENDUM

## Appendix 6

JYS ID	Project Name	Project Description	Cost	Funding Source	Schedule / Status
17	White Rock WRRF (aka. White Rock Wastewater Treatment Plant)	Construction - The project will completely replace the existing trickling filter plant which was constructed in 1965. The new reclamation facility will include a new headworks, oxidation ditch, secondary clarifiers, ultra-violet disinfection, filtration and sludge digesters.	Construction – \$27.7 million	CWSRL	Construction Completion Fall 2023.
19	Canyon Road Sewer	Replace failing sections of vitrified clay sewer lines beneath and crossing Canyon Road	\$385,000	DPU CIP	Completed August 2022
22	Aspen School Area Phase I (aka. 33 <sup>rd</sup> & 34 <sup>th</sup> Street utility Up-grade Projects)	The project will replace aged and failing water-lines in the 33 <sup>rd</sup> and 34 <sup>th</sup> Streets in the vicinity of Aspen School.	\$1,000,000	DPU CIP	Construction summer 2023, Completion Fall 2023
23 & 27	Los Alamos Wastewater Treatment Plant Filtration Process	Install a new filtration process and building to filter effluent. Filtering the effluent will improve the water quality increasing the effluent classification to Class 1A – the highest achievable. Class 1A effluent can be used in more applications and locations.	Design - \$200,000 Construction \$3,400,000	Design - CIP Construction WTB Grant \$2,190,000 WTB Loan \$1,460,000	Ongoing, completion summer 2023
28	Barranca Mesa Tank No. 2 Re-painting	The project will repaint the interior and exterior of the existing elevated 200,000 gallon water tank. Some structural and safety improvements will be completed as part of the project.	\$1,300,000	ARPA - \$1,100,000 DWSRL - \$565,000	Construction Summer 2023, Completion Fall 2023.

# ADDENDUM

## Appendix 7

### Los Alamos County Energy Conservation Policy



#### INCORPORATED COUNTY OF LOS ALAMOS ADMINISTRATIVE PROCEDURE GUIDELINE

Index No. 0330

Effective: May 15, 2013

#### ENERGY CONSERVATION POLICY

##### I. Purpose

County Council adopted an Environmental Sustainability Initiative that states:

*"By incorporating a value of environmental sustainability into County activities there is an opportunity to lead by example, control costs, inspire community and staff, and preserve the environment for future generations."*

Adopting a policy that creates a uniform energy conservation approach will help Los Alamos County reduce electricity and natural gas usage, thereby enabling the County to seize these opportunities.

##### II. Responsibility

All County Department Directors are responsible for the administration and enforcement of this policy for their Department. All employees are responsible for adherence to the policy. Specific departmental needs will dictate actual application of the policy.

##### III. Procedure

A. It is the responsibility of all County employees to be proper stewards of County resources, which includes our consumption of energy in the course of fulfilling our mission. Adopting a uniform energy conservation approach will help control costs and spread awareness about the need for protecting our finite resources. The following areas and practices are examples where employees should be mindful of how we consume energy in the course of completing our work. The list is not meant to be exhaustive but rather reflects examples of common energy consumption areas found in the work of the County.

B. Office Equipment and Appliances:

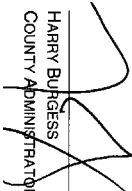
1. Computers and peripherals should be turned off at night and on weekends when not in use.
2. During operating hours display properties and power options for computers should be set as follows:
  - a. Monitors automatically shut off after 10 minutes of inactivity.
  - b. CPU to activate sleep mode after 30 minutes of inactivity.
3. No dual monitors shall be permitted in County facilities, unless deemed necessary for efficiently accomplishing tasks.
4. No office desktop printers shall be permitted in County facilities, unless required for the frequent printing of confidential documents.
5. No personal office refrigerators or cooking devices (i.e. microwaves, hot plates etc.) shall be permitted in County facilities.

##### C. Lighting

1. Lights in all building areas and workspaces will not be turned on unless needed.
2. Lights in all building areas and workspaces will be turned off when not in use.
3. During daylight hours all exterior lights will be off.
4. Exterior lighting will be used only when the building or facilities are occupied, unless the lighting is for security purposes.
5. Nighttime security lighting will be minimized to a level that is adequate to reasonably protect the building and facilities.

##### D. Heating and Cooling

1. Doors and windows at city facilities shall be kept closed when utilizing heating or cooling.
2. In accordance with the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) recommended standards for thermal comfort, during working hours occupied facilities shall have their thermostat set between 68 and 75 degrees during the heating season and between 73 and 79 degrees during the cooling season.
3. Night-time settings for heating and cooling should be utilized in all applicable facilities.
4. No portable space heaters shall be permitted in properly climate controlled areas.

  
HARRY BURGESS  
COUNTY ADMINISTRATOR  
DATE 5/1/13



# Appendix 8

## Sources Referenced

Bureau of Business & Economic Research Population Pyramid  
<https://bber.unm.edu/data/counties?county=LosAlamos>

Census Data:  
<https://www.census.gov/quickfacts/losalamoscountynewmexico>  
<https://data.census.gov/cedsci/profile?g=0500000US35028>

Census Housing Data  
<https://data.census.gov/cedsci/table?q=0500000US35028&tid=ACSDP5Y2019.DP04&moe=false>

Community Solar  
<https://www.nm-prc.org/utilities/community-solar/>

Drought Map  
<https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NM>

Energycodes.gov  
<https://www.energycodes.gov/status/states/new-mexico>  
<https://www.rld.nm.gov/wp-content/uploads/2021/08/14.7.9-NMAC-NMCECC.pdf>

Energy Grid Modernization Roadmap  
<https://perma.cc/MX25-CYFE>

Energy Transition Act  
<https://www.dws.state.nm.us/ETA#:~:text=The%20ETA%20sets%20a%20statewide,rural%20electric%20cooperatives%20by%202050.> <https://www.nmlegis.gov/Sessions/19%20Regular/bills/senate/SB0489.html>

Geologic Map of Los Alamos  
[https://geoinfo.nmt.edu/publications/maps/geologic/ofgm/downloads/55/OFGM-55\\_GuajeMountain.pdf](https://geoinfo.nmt.edu/publications/maps/geologic/ofgm/downloads/55/OFGM-55_GuajeMountain.pdf)

Geologic Map of White Rock  
[https://geoinfo.nmt.edu/publications/maps/geologic/ofgm/downloads/149/OFGM-149\\_WhiteRock.pdf](https://geoinfo.nmt.edu/publications/maps/geologic/ofgm/downloads/149/OFGM-149_WhiteRock.pdf)

Industrial Revenue Bond Act  
<https://perma.cc/MX25-CYFE>

Integrated Resource Plan Report for Los Alamos County, 2017

LANL Employee Projections  
<https://discover.lanl.gov/publications/connections/2021-december/director-public-meeting#:~:text=The%20Laboratory%20budget%20for%202022,to%202%2C000%20employees%20in%20FY2022>

Long-Range Water Supply Plan Los Alamos County, 2017

Los Alamos Climatology 2021 Update, LANL, 2021

Los Alamos County Comprehensive Plan, 2016

Los Alamos County Non-Potable Water System Master Plan, 2013

Los Alamos Environmental Sustainability Plan, 2017

Los Alamos Resiliency, Energy and Sustainability Task Force Final Report, 2022

New Mexico Climate Change Report 2020 Geospatial and Population Studies Population Projections  
<http://gps.unm.edu/pru/projections>

Solar tax credit  
<https://www.emnrd.nm.gov/ecmd/tax-incentives/solar-market-development-tax-credit-smdtc/>

Smart Energy Provider  
<https://www.publicpower.org/smart-energy-provider>

Voice of Customer Survey  
<https://www.losalamosnm.us/common/pages/DisplayFile.aspx?itemId=18419823>

WaterReuse  
<https://watereuse.org/>

DRAFT

Los Alamos Department of Public Utilities  
2022-2027 Update

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Approved by BPU on August 17, 2022  
Addendum revisions (pages: 28-29, 35-57;  
Appendices 5-7) approved by BPU on



# County of Los Alamos

## Staff Report

December 07, 2022

Los Alamos, NM 87544  
www.losalamosnm.us

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**Agenda No.:** 7.C.

**Index (Council Goals):** \* 2022 Council Goal - Investing in Infrastructure; DPU FY2022 - 1.0 Provide Safe and Reliable Utility Services; DPU FY2022 - 2.0 Achieve and Maintain Excellence in Financial Performance; DPU FY2022 - 3.0 Be a Customer Service Oriented Organization that is Communicative, Efficient, and Transparent; DPU FY2022 - 6.0 Develop and Strengthen Partnerships with Stakeholders

**Presenters:** Jordan Garcia, Deputy Utilities Manager - Electric Production

**Legislative File:** 16661-22

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### Title

Resource Investigation Update

### Body

This briefing will be focusing on the efforts of Staff to develop generation resources. Staff will also be joined by Matt Hastings, Manager of Project Development for Utah Associated Municipal Power Systems (UAMPS), to discuss options being investigated by the UAMPS Resource Project. The Los Alamos Power Pool participates in UAMPS as a member of the Resource Project.

### Fiscal and Staff Impact

None - resource investigation is a budgeted and normal part of Operations in Power Supply.

### Attachments

A - 2022.12.7 Resource Investigation Presentation

# Power Supply Resource Investigation

December 7, 2022

Power Supply

# IRP Identified Need

- 20 Year Outlook
  - 55MW (4 hour) Battery Storage- Capacity Adjusted 9 MW
  - 380MW Solar - Capacity Adjusted 114MW
  - 135MW Wind - Capacity Adjusted 54MW
  - 8MW SMR/CFPP -Capacity Adjusted 7.6MW
- 5 Year
  - 30MW Battery Storage - Capacity Adjusted 5MW
  - 85MW Solar - Capacity Adjusted 25.5 MW
  - 105 MW Wind - Capacity Adjusted 42 MW

Source: Los Alamos County 2022 Integrated Resource Plan, p. 15, exhibit 3.

# Future Resource Being Investigated

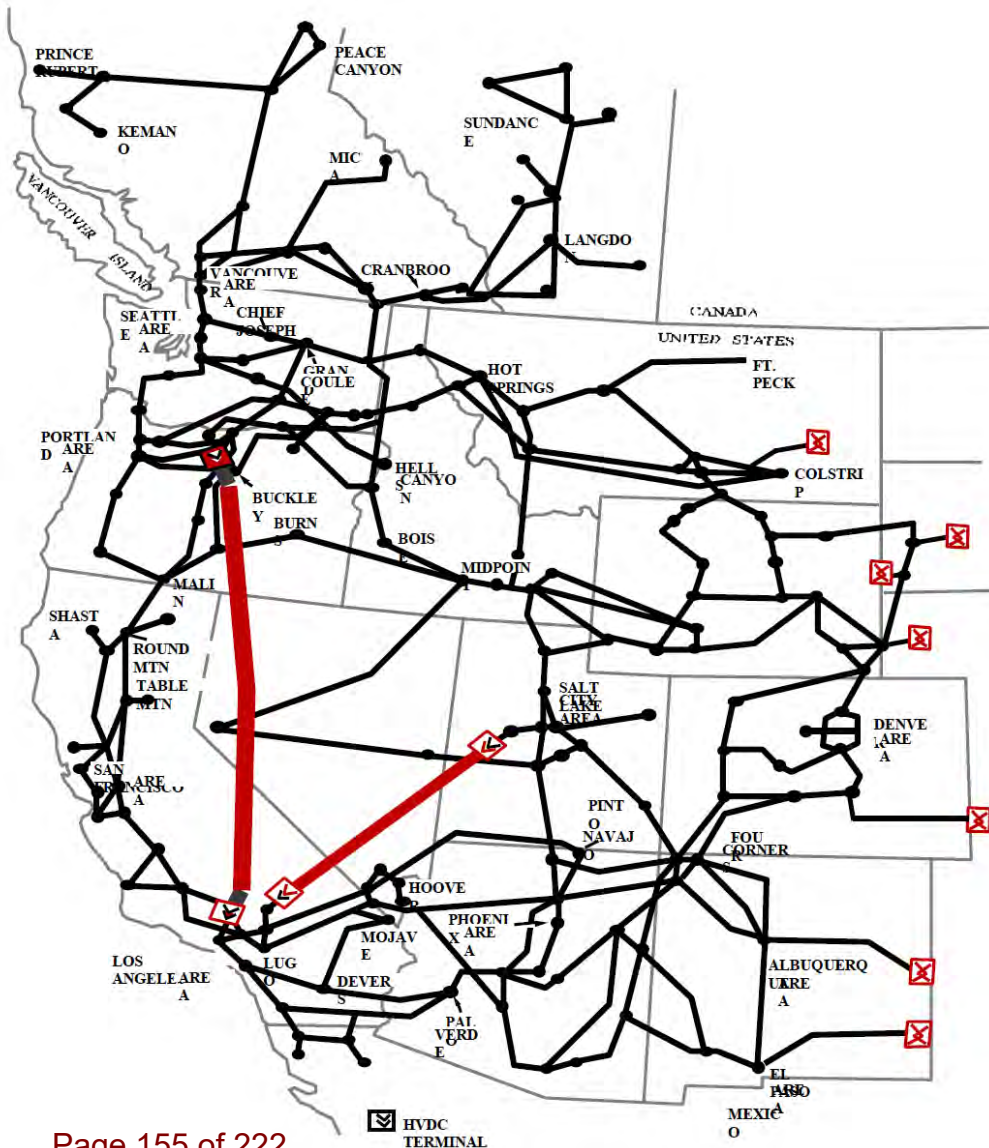
Types		Resources	Considerations
Baseload	Thermal	Combined Cycle (CC)	Inconsistent with carbon neutral goal
		Laramie River Station (LRS)	Exit when economical, no later than 2042 <sup>1</sup>
	Nuclear	Carbon Free Power Project (CFPP)	Subscription levels: 0, 8, 36 MW
	Hybrid	ATC PPA with 28% Renewable <sup>2</sup>	Near term bridge PPA to replace San Juan Unit 4
	Firm Renewables	Solar + Wind	Uniper contract + more
		Solar + Battery	Solar weather dependent
		Geothermal	High cost, opportunistic and geography dependent
		Fuel Cells	< 5 MW size, implemented in other national labs
Peaking	Thermal	Reciprocating Internal Combustion Engine (RICE)	Explore in IRP for dispatchability and balancing
		Simple Cycle Gas Turbine (SCGT)	Explore in IRP for dispatchability and balancing
	Storage	Pumped Hydro	Cost and ownership of water rights; Opportunistic and geography dependent
		Lithium-ion Battery	Duration considerations
		Vanadium Redox Flow Battery	High-cost; lack of actual projects development
Intermittent	Renewables	Solar (onsite or offsite)	Weather dependent
		Onshore Wind	Weather dependent; transmission constraints



# IRP Pivot Strategies Identified

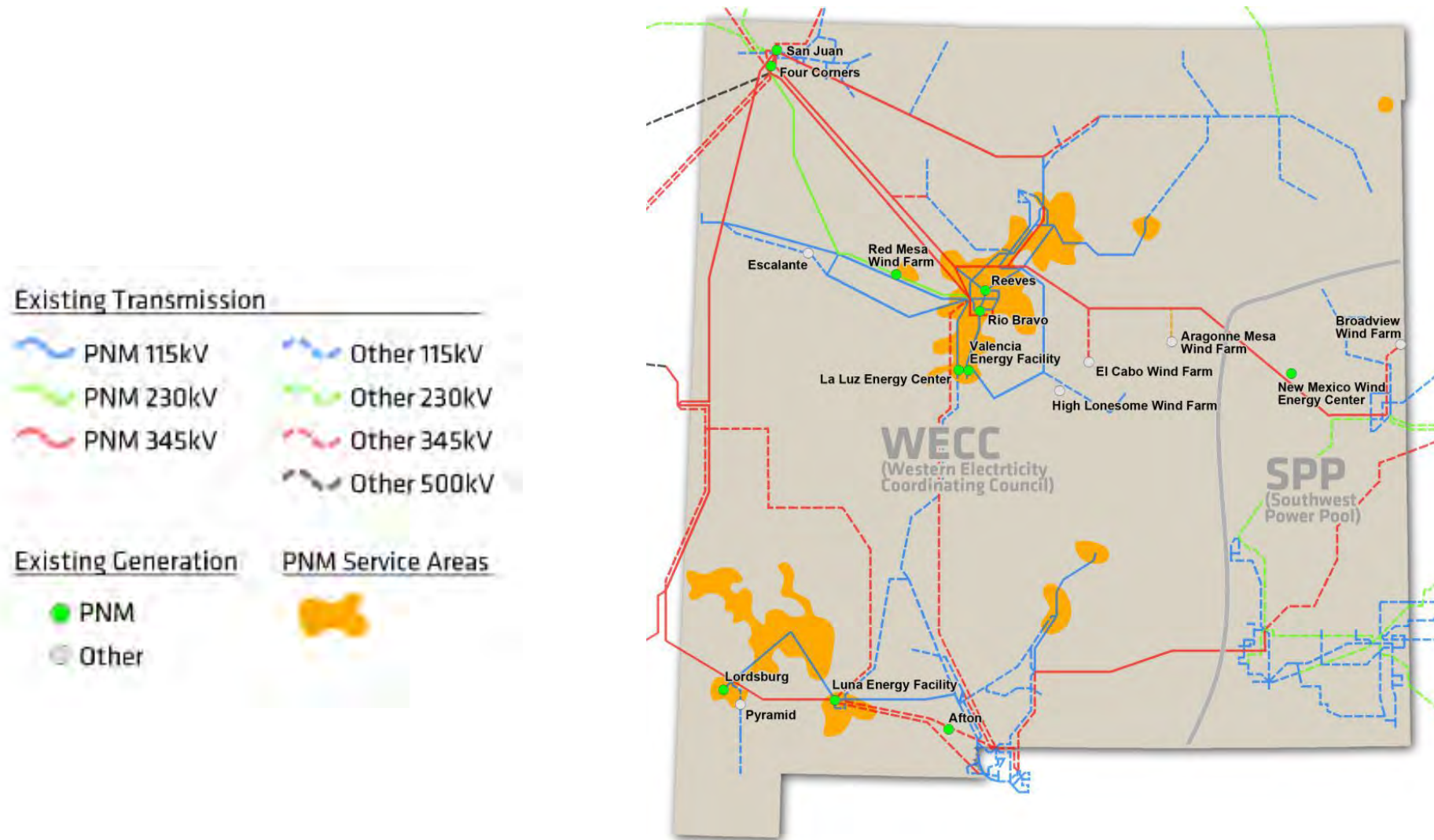
- Investigate
  - Simple Cycle Gas Turbine
  - Reciprocating Internal Combustion Engine
- When cost effective:
  - Hydrogen
  - Flow battery
  - Compressed Air Storage
- Partners and Potential locations for Resources listed above
  - San Ildefonso Pueblo
  - NGI-NTUA Generation Inc.
  - Jicarilla Energy Center
  - UNIPER
  - Mercuria Energy
  - Four Corners
  - San Juan
  - UAMPS
  - Affordable Solar
  - CREDA

# Transmission Considerations



Transmission Cost by Resource				
Existing Resource	Transmission cost above PNM	PNM BA Ancillaries & Transmission	LANL/DOE Transmission	Total Transmission Cost
Abiquiu	\$ 2.50	\$ 6.00	\$ 2.50	\$ 11.00
Economy Purch	\$ -	\$ 6.00	\$ 2.50	\$ 8.50
El Vado	\$ 5.97	\$ 6.00	\$ 2.50	\$ 14.47
Lincoln-Wyoming	\$ 3.50	\$ 6.00	\$ 2.50	\$ 12.00
San Juan	\$ -	\$ 6.00	\$ 2.50	\$ 8.50
WAPA (LAC)	\$ -	\$ 6.00	\$ 2.50	\$ 8.50
WAPA Firm (DOE)	\$ -	\$ 6.00	\$ 2.50	\$ 8.50
Proposed Resources				
CFPP-Proposed	\$ 7.00	\$ 6.00	\$ 2.50	\$ 15.50
Uniper-Proposed	\$ -	\$ 6.00	\$ 2.50	\$ 8.50

# Transmission







## Pancaking Transmission Rates

	NORA Electric Co-op Transmission	\$3.47/MWh
	TSGT Substation	\$0.50/MWh
	JMEC	\$2.00/MWh
	PNM	Approx. \$6.00/MWh
	DOE-NNSA	Approx. \$2.50/MWh

Example:

El Vado Trans. Cost \$14.47/MWh

# CFPP

- Carbon Free Power Project, January 2023 decision point on DCRA (Development Cost Reimbursement Agreement) and Economic Competitive Test model
- Present Class 3 estimate summary
- Revised Levelized Cost, Budget & Plan of Finance, and Development Cost Reimbursement Agreement
- More information to follow on January 11<sup>th</sup> 2023

# ATC PPA

- Consider 2-year extension of the 25 MW Uniper resource
- Gives time to acquire and construct resources per the IRP Implementation plan
- Availability and cost under evaluation



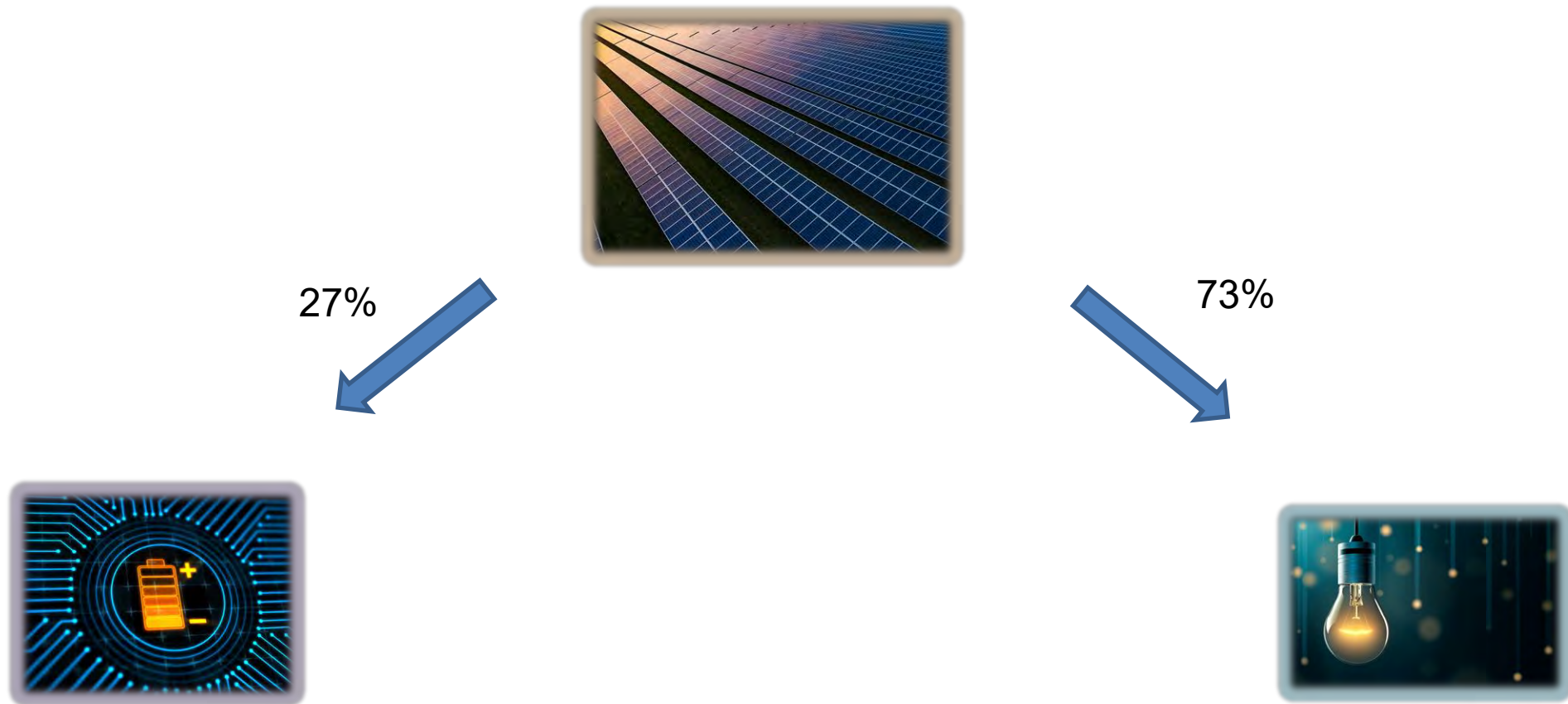
# Solar + Battery on LANL Site

- 8-10MWs of PV on LANL Site
- DOE/NNSA would lease land to LAC with the intention of LAC developing the PV site
- DOE/NNSA would install interconnection power lines
- LAC has engaged a PV developer for initial concept exploration
- LAC has requested a battery study for potential locations within our service territory with the new possibilities the Inflation Reduction Act has enabled
- Suitability and cost under evaluation

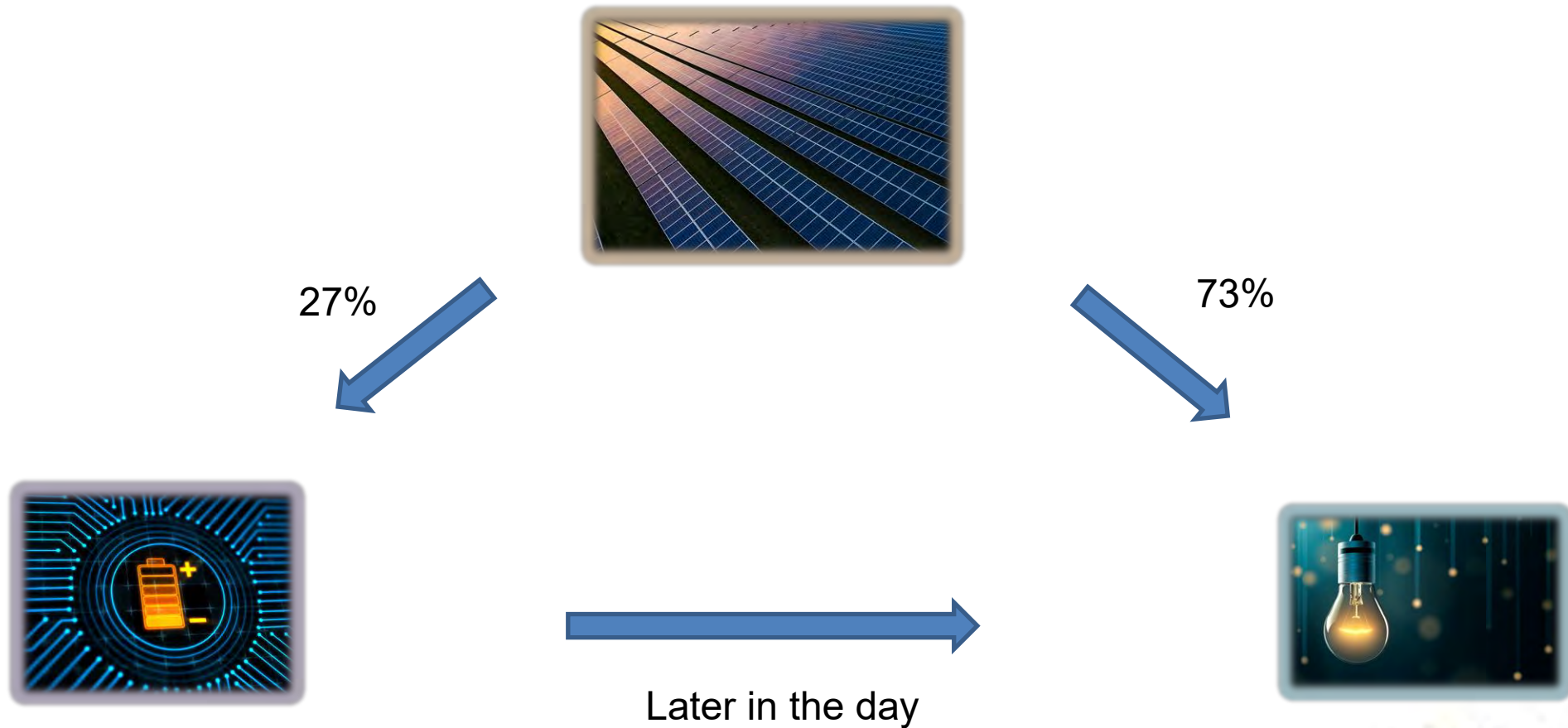
# Solar + Battery with UAMPS

- UAMPS currently investigating solar + battery options
- Investigation is looking at 100 MW solar projects
  - 50 MW storage with 4-hour duration
- Interconnection planned for PacifiCorp East control area
- Anticipate COD ranging from 2026 to 2028
  - COD dependent on generator interconnection timing – uncertainty on most projects
- 25-year PPA
- Limited ability for load following with storage
- General price ranges, not specific to any projects
  - Solar \$30-50/MWh
  - Battery \$100-200/MWh
  - Solar + Battery 4-hour \$60-100/MWh
  - Solar + Battery around the clock \$130-250/MWh

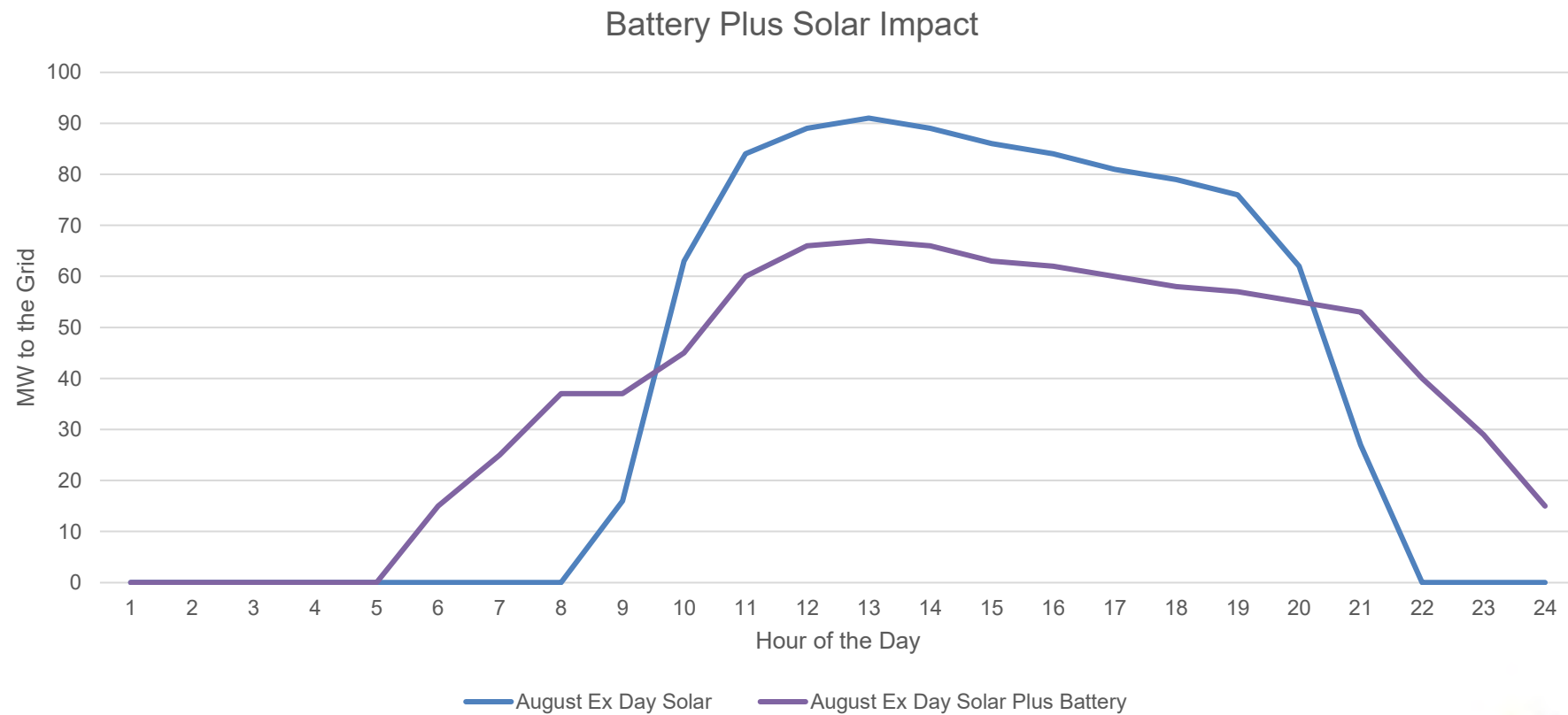
# Solar and Storage Example Scenario



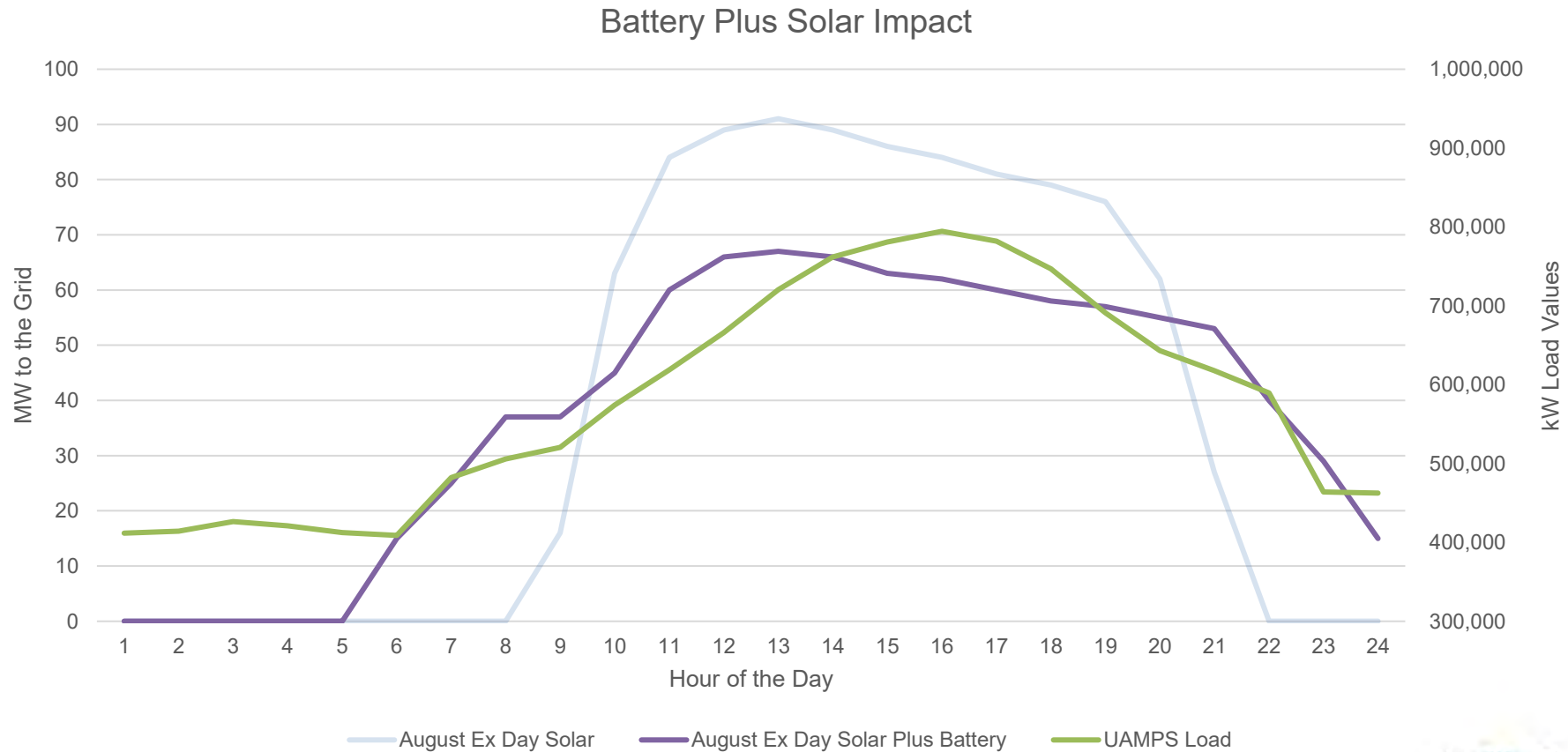
# Solar and Storage Example Scenario



# Solar and Storage Profile Example



# Solar and Storage Profile with Load





# Geothermal-UAMPS

- UAMPS currently investigating geothermal options
- There is significant interest across the west in geothermal
  - Most available options are under contract
- Projects are often in the 30 MW size range
- 15-25 year PPA desired
- Most options are “take or pay”
  - Good for base load, but expensive to use for load following
- Some flexibility on location, depending upon project
- General price range, not specific to any projects \$65-120, can be >\$400/MWh

# Natural Gas Generation-UAMPS

- Limited certainty into the future
  - Air permits, carbon taxes
  - Uncertain gas pricing into the future
  - Short amortization period, maybe 10 years
- Flexible, able to ramp quickly and follow load
- Smaller “behind the meter” options will be investigated as well as larger projects
- Timeline for transmission interconnection a concern
- Investigating potential hydrogen fuel capability
- General price range, not specific to any project \$80-120, fuel cost dependent

# LAC Exploration of Gas Generation

- Different Options for participation in a gas resource:
  - Call option:
    - Pay monthly demand fee
    - Pay for energy as it is called upon
    - Premium due to limited ownership liability
  - Resource Investment/Ownership
    - Similar structure to San Juan
    - Demand and Energy Costs
    - Shutdown Liabilities born by Ownership
  - Access to Bulk Electric System for Offloading into Market

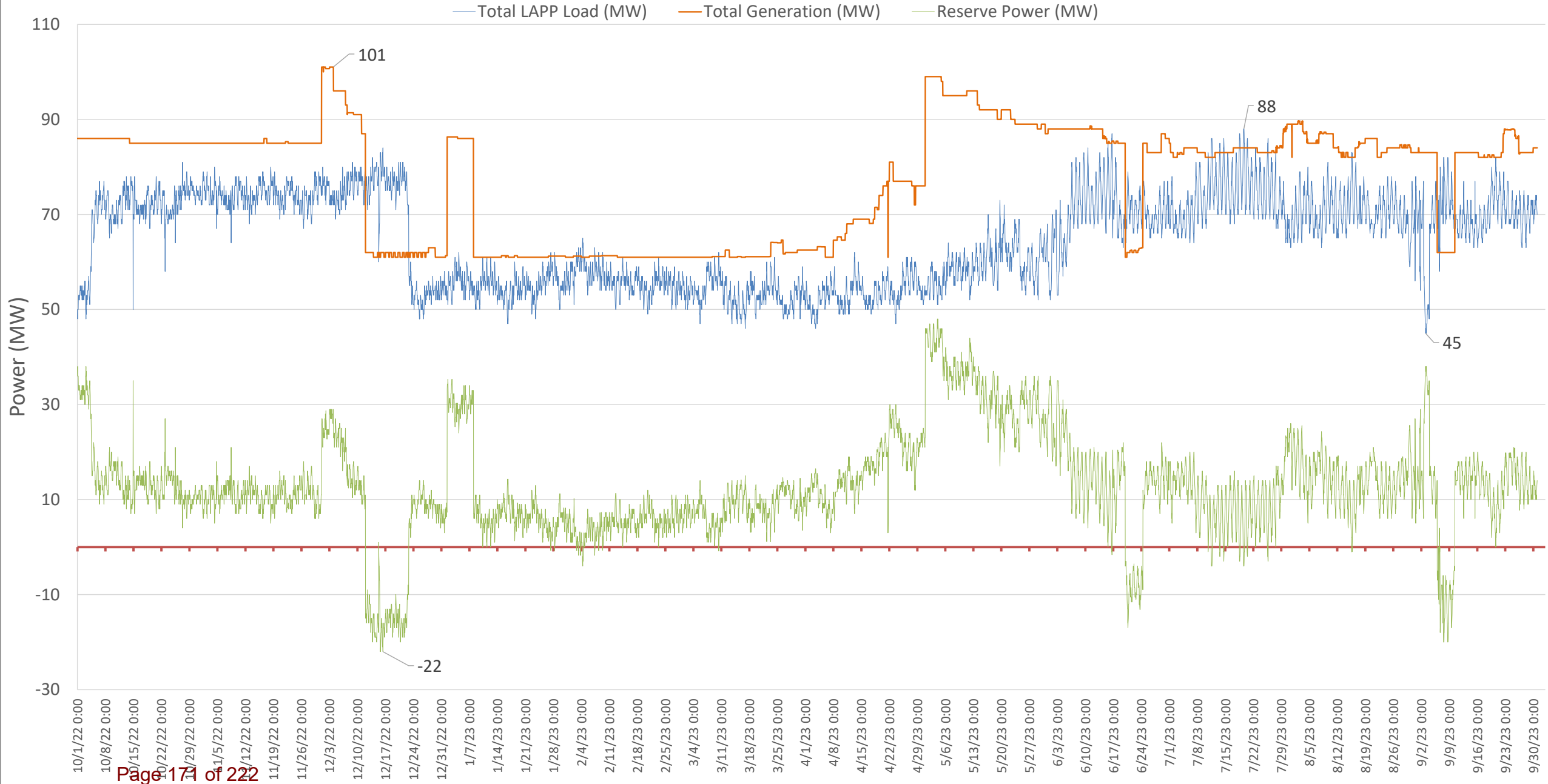
# Pumped Hydro-Very Preliminary

- Modular 10MW, 40MWh tank-based pumped hydro system, first considered by DPU in 2020
- Concept has matured over the past 2 years, with 4 projects in pre-construction development
- 2+ years development timeline
- 8MW return pumping load per module
- \$120/MWh + \$6/kW-month rough estimate
- Local, provides resilience and fire protection
- 2-month preliminary evaluation at no cost to DPU

# Load and Generation

- Base Load for the Power Pool is roughly 45 MW
- Summer Peak Load and Winter Peak Load are very close in terms of MWs
- LAPP is transitioning to a positive reserve margin.
  - Excess Capacity from dispatchable resources is preferred for optimization of resource fleet.

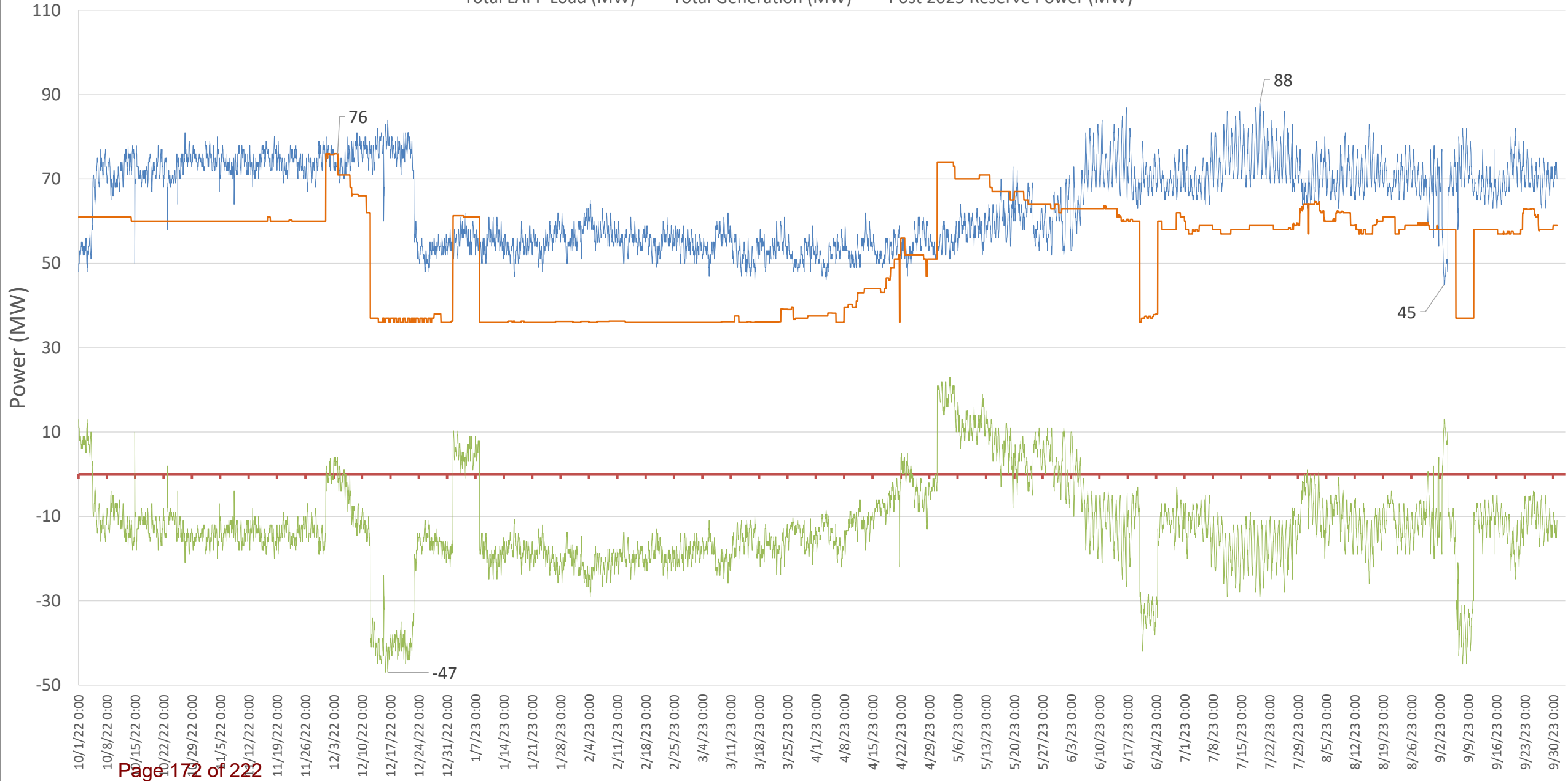
# Electric Load and Generation Forecast



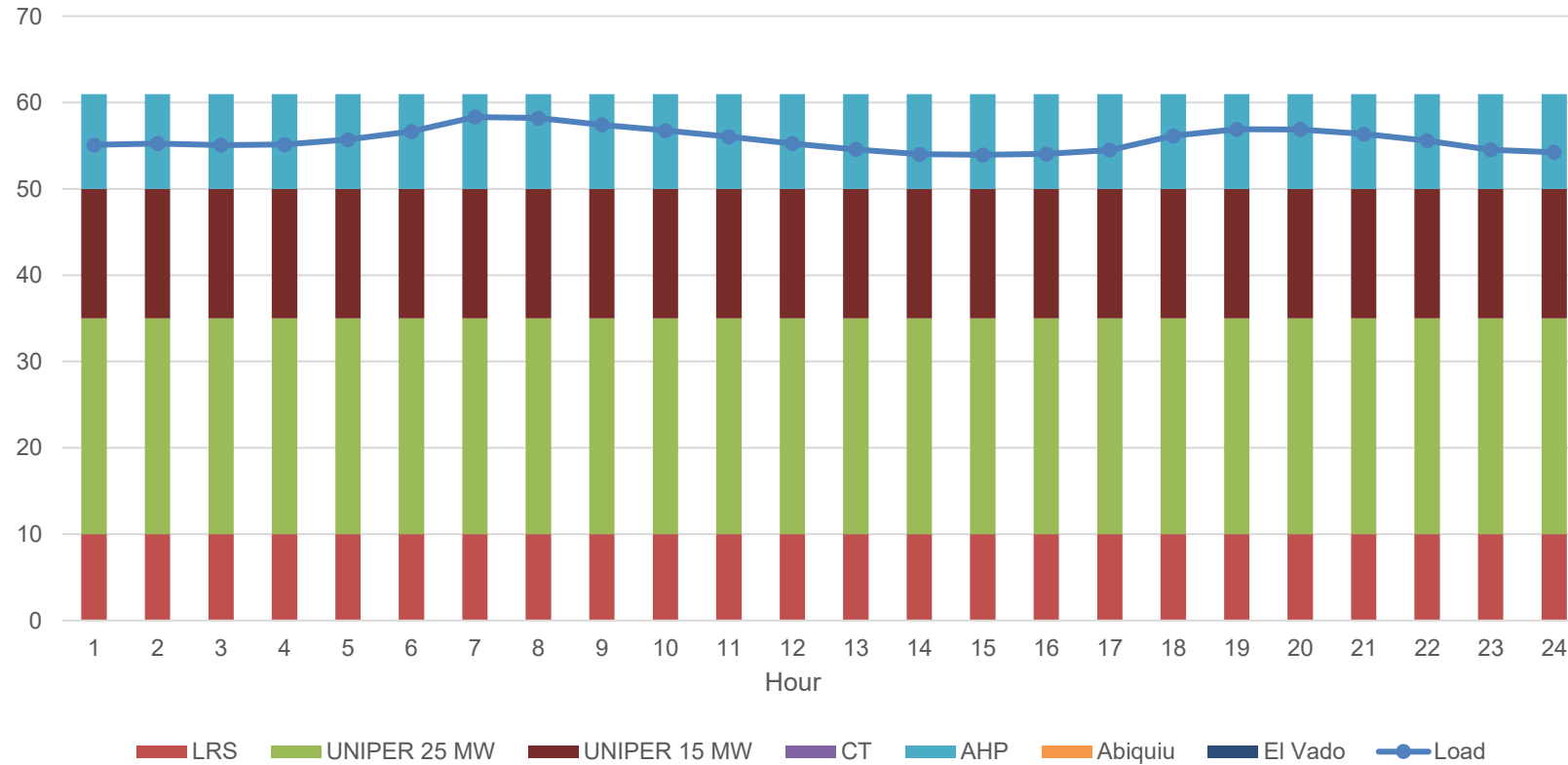


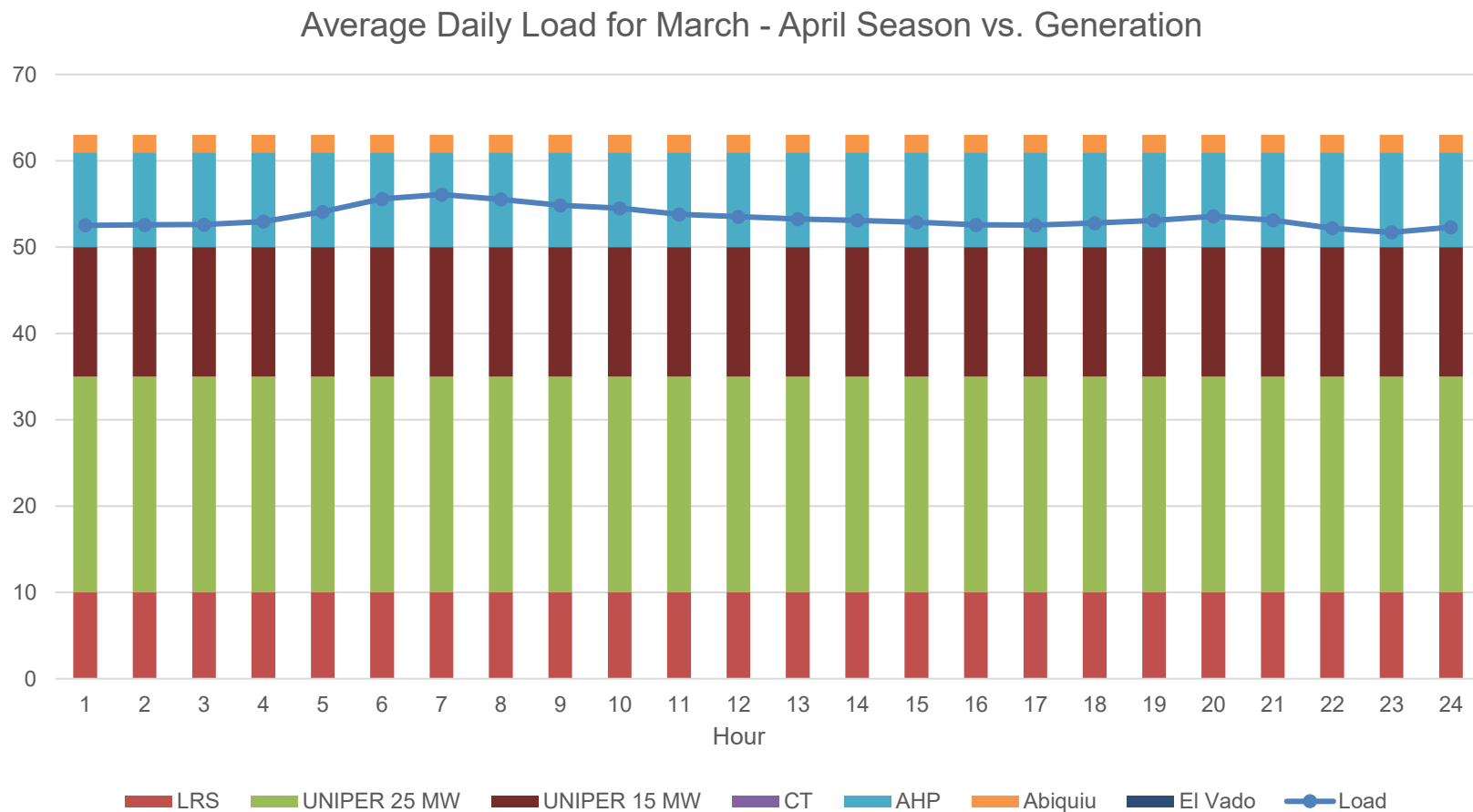
# Electric Load and Generation Forecast w/o 25MW PPA

— Total LAPP Load (MW) — Total Generation (MW) — Post 2025 Reserve Power (MW)



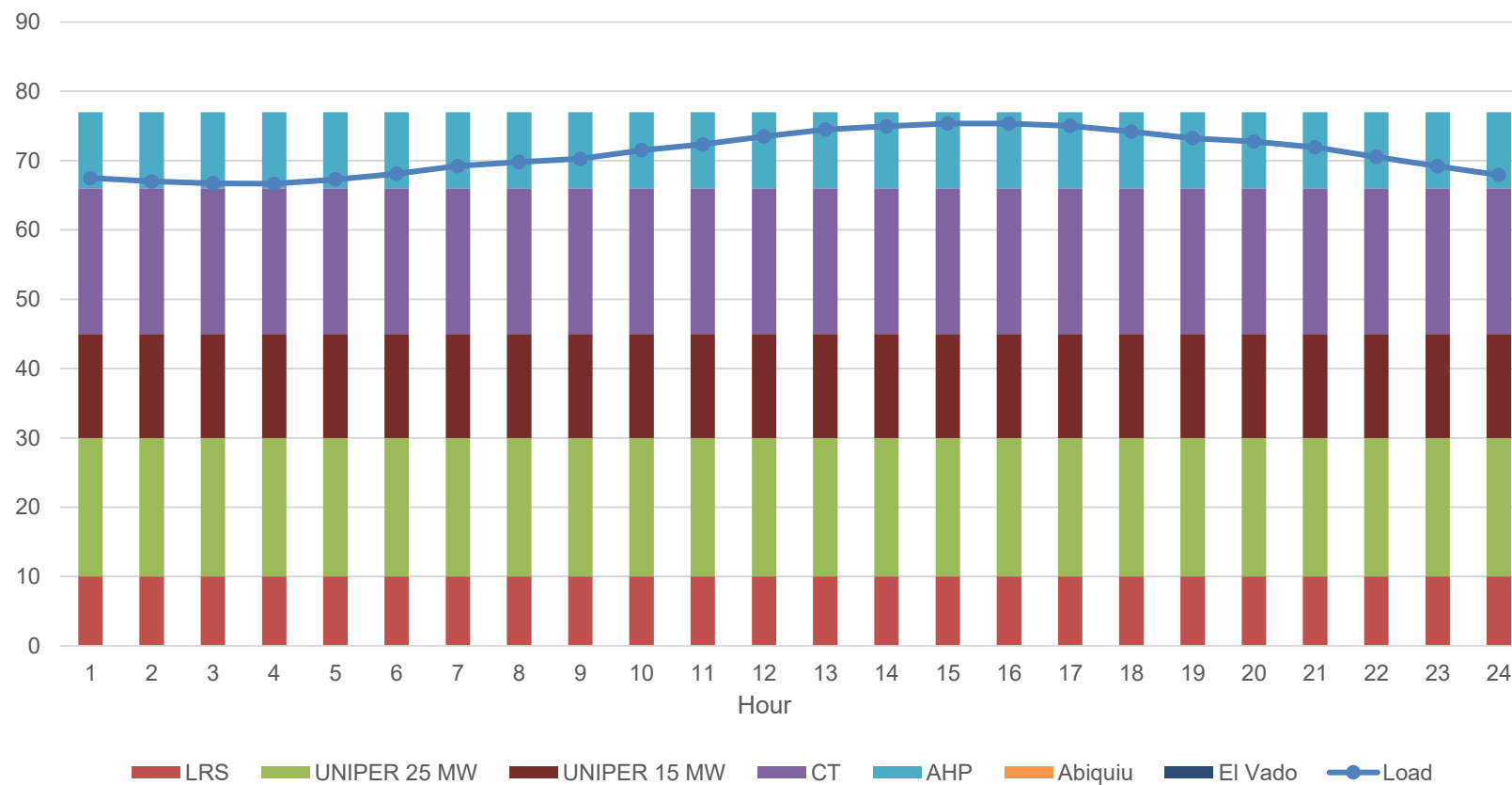
Average Daily  
Load for January - February Season vs. Generation

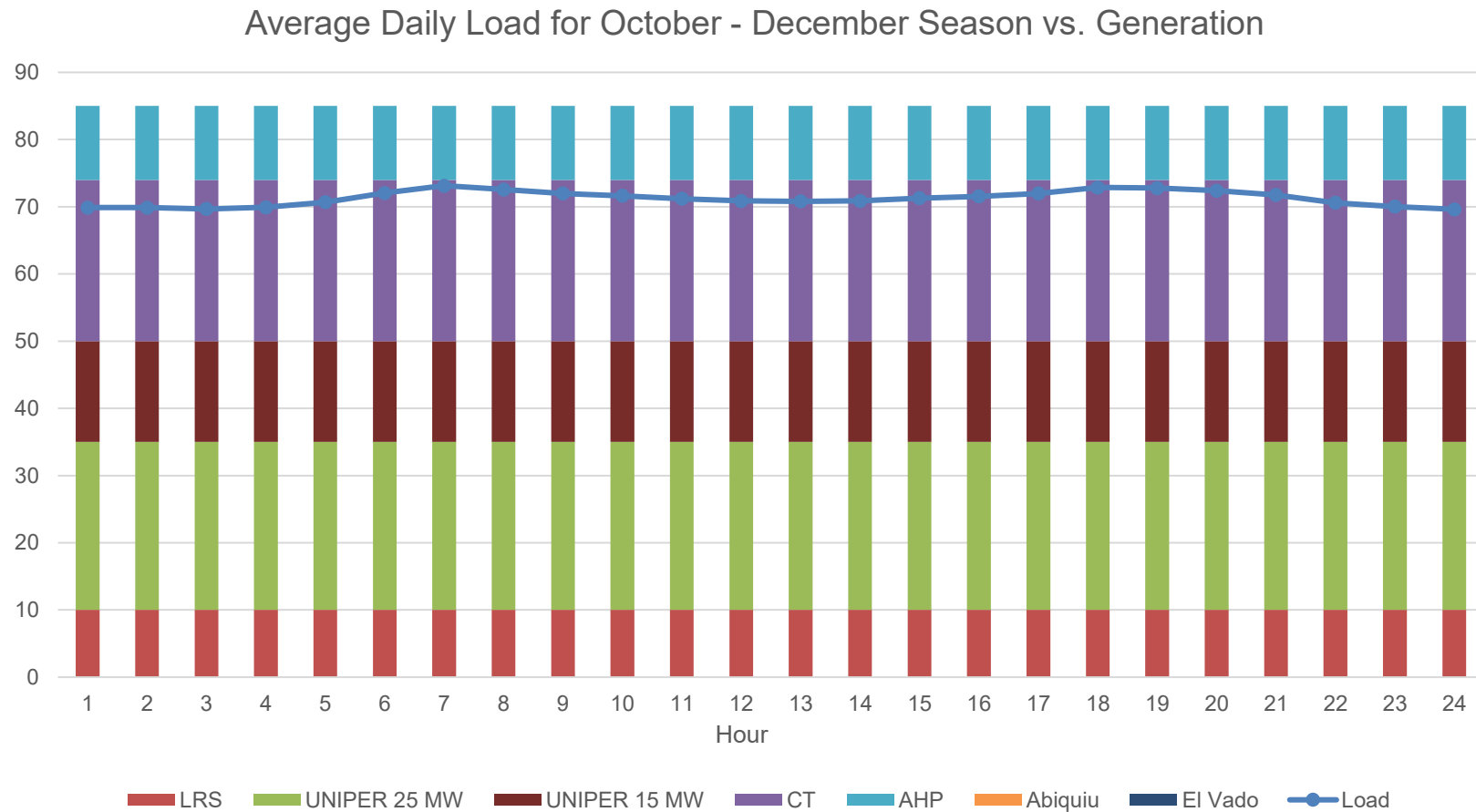




May is omitted because has enough year-to-year variability that in some years it fits in with March – April, and other years it fits in with October – December.

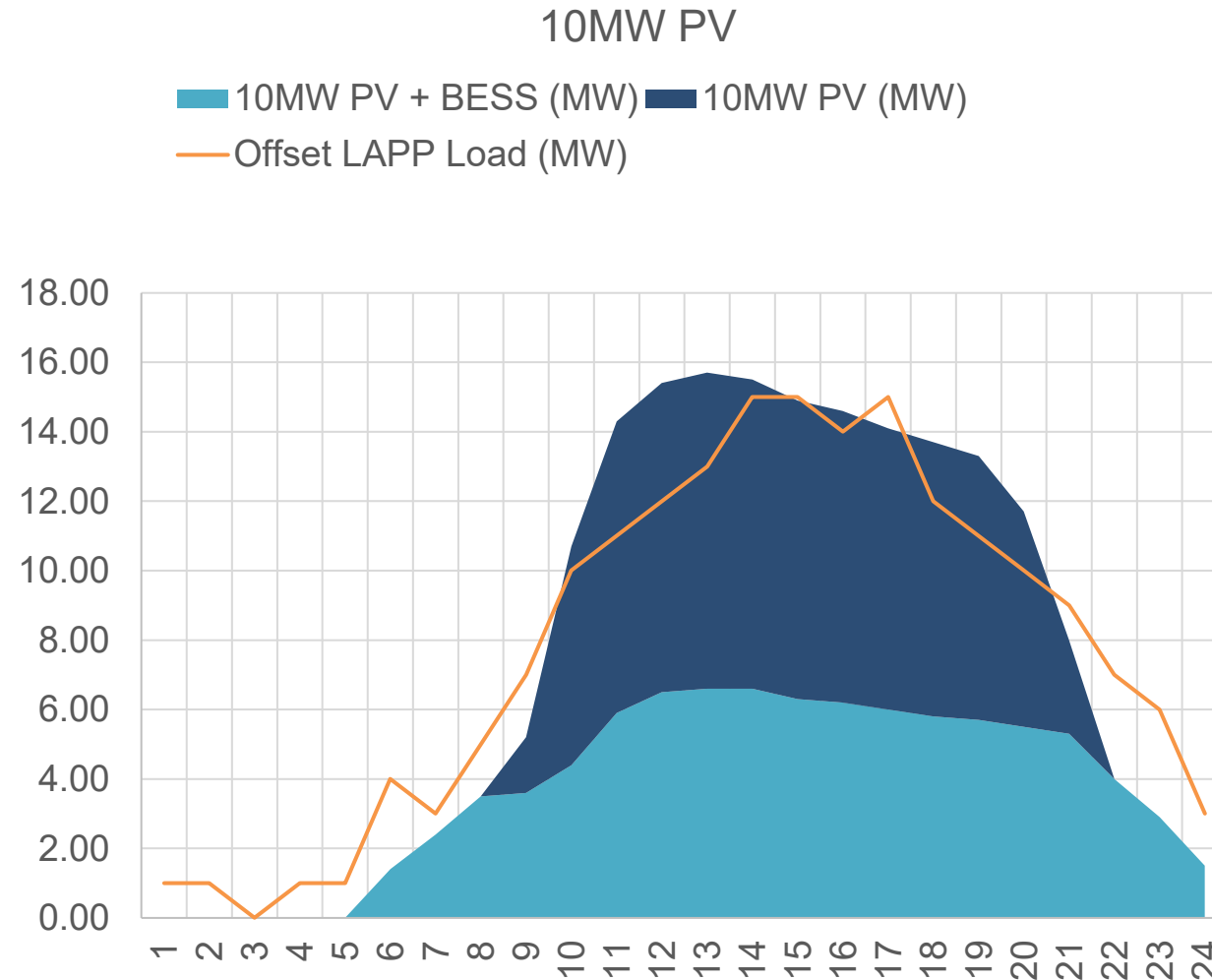
Average Daily Load for June - September Season vs. Generation





May is omitted because has enough year-to-year variability that in some years it fits in with March – April, and other years it fits in with October – December.

# Load Following with Solar + Storage





# Operational Path Forward

- Continue search for Solar, Wind, BESS, and Thermal resources bearing in mind the new developments with the IRA
- Continue to evaluate CFPP's viability
- Explore Partnerships with other entities
  - Continue to Explore and Expand Partnerships listed in Slide 4
- The IRP and the projections presented do not account for extreme weather events
- Firm Dispatchable resources are extremely valuable for the pool from an Operational and Economical perspective



# County of Los Alamos

## Staff Report

December 07, 2022

Los Alamos, NM 87544  
www.losalamosnm.us

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<b>Agenda No.:</b>	8.A.
<b>Index (Council Goals):</b>	DPU FY2022 - 5.0 Achieve Environmental Sustainability
<b>Presenters:</b>	Conservation Specialist Abbey Hayward, Conservation Specialist
<b>Legislative File:</b>	16023-22

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### Title

Quarterly Conservation Program Update

### Body

The Induction Cook Top Loaner Program is going very well. To date, 45 out of 100 people have borrowed the kits with overwhelmingly positive support and feedback.

Induction events:

- \* October 4 - Presentation on cooking technology history and Induction Loaner program to Rotary Club
- \* October 5 - Customer Service Day demonstrations in Muni Building October 5.
- \* October 6 - Induction Stove panel demonstration with PEEC. There was a lot of good discussion with the dozen people who attend the event.

- October was Public Power Week and National Energy Month.

The County proclaimed October 5 as Energy Efficiency Day. Updated DPU "Conserve and Reduce" webpage with ways to "Reduce Energy Costs".

PEEC presented the Monster Detective Collective to several classrooms throughout October and November. The Monster Detective Collective is an engaging energy education program created by Milepost Consulting and the Tennessee Valley Authority. We purchased the Public Power version created with the American Public Power Association for Public Power Week and Energy Awareness Month. The program walks kids through what is energy, what uses power, where power comes from, and what happens when the power goes out.

Elizabeth, our PEEC educator touched on the actual sources our power comes from and had the kids do a hands-on activity to see how wind and solar work.

Utility Bill Inserts: Offsetting Peak Usage (October); Natural Gas Conservation (November); Cooking Fuels (December)

Energy audit for WWTP provided by Arizona State is looking to be around December 12.

Cathy and I started the accreditation process for American Public Works Association.

Rolled out weatherization program assistance resource page on the DPU website.

Information geared towards all customer classes and was shared with Self Help and LAC Social Services.

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Engaging discussions with library system to enhance their Library of Things. Rolling out some trial programs: two induction loaner kits and four Kill-A-Watt power meters.

In the contract drafting phase for the Community Conservation Outreach Education RFP. The current contract expires in February 2023.

An addendum to the Conservation Plan was requested at the end of November.

Upcoming programming:

Looking at getting an intern through UNM-LA

Inflation Reduction Act programs in January/February

Demonstration kitchen in White Rock: install induction stove, get poster contest going

Xeriscaping

Heat pump technology information

**Fiscal and Staff Impact**

None

**Attachments**

None



# County of Los Alamos

## Staff Report

December 07, 2022

Los Alamos, NM 87544  
www.losalamosnm.us

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**Agenda No.:** 8.B.

**Index (Council Goals):**

**Presenters:** Philo Shelton, Utilities Manager and Catherine D'Anna, Public Relations Manager

**Legislative File:** 16275-22

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### Title

Department of Public Utilities Quarterly Report - FY23/Q1

### Body

The Board requested that the quarterly report be presented each quarter that shows the status of the utility and provides project updates.

### Attachments

A - FY2023 Q1 Report



# FY2023 Q1 REPORT

JUL1 thru SEP30 / 2022

# About DPU



The Department of Public Utilities is county-owned. It provides Los Alamos County with electric, natural gas, water and wastewater services.

Established under Article 5 of the 1968 Charter for the Incorporated County of Los Alamos, the DPU falls under the jurisdiction of the Board of Public Utilities.

Serving a population of 19,419 citizens with an authorized budget of approximately \$83 million, DPU operates and maintains assets totaling \$219 million with about 100 employees.

Los Alamos is situated at the foot of the Jemez Mountains on the Pajarito Plateau with an elevation ranging from 6,200 to 9,200 feet. Because of this unique topography, DPU’s assets are incredibly complex for the population served. For example, Santa Fe serves its 88,000 citizens with four lift stations. Here in Los Alamos, our population is a fifth of that size but 27 lift stations are required to properly serve our citizens with wastewater services.

ON THE COVER: The downstream outlet at the El Vado Hydroplant allows water to exit the turbine piping once energy has been transferred to the turbine.

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# A Word from the Utility Manager



**PHILO SHELTON**

UTILITIES MANAGER

June 2019 through present

Professional Engineer  
Master of Science in Civil Engineering  
Bachelor of Science in Civil Engineering  
Master of Public Administration  
Certified Public Manager

## In a nutshell...

Annually in September, the Board of Public Utilities (BPU) and Senior Management hold strategic planning meetings. It is important we take a step back to see where the organization is going and perform a SWOT analysis. Next, we reviewed the organization's mission, vision, and values to be sure they are current and relevant.

The update to DPU's vision to include being a "Community Centric Utility" is an important change as we seek to better serve our community. Finally, the six strategic focus areas, goals and objectives are reviewed, revised, and prioritized by the BPU. This guidance helps staff better understand the BPU's priorities and if our organization needs to change or pivot on a direction the organization is headed. For example, the BPU has consistently year after year put forward this departmental directive: "All utilities services are delivered safely, reliability and efficiently." The revised priorities are important for staff to understand as the department's asset management teams meet to review the department needs in developing next year's budget request.

This quarter, DPU saw a large loss in staffing in the Gas Water Sewer division with seven employees pursuing better opportunities. This trend was not limited to DPU as other county departments, including Police, Fire and Transit, also experienced a large loss of employees. As a result, all four labor unions asked for a limited reopener to their contracts for economic reasons. These negotiations have occurred this quarter and have been finalized in the middle of November. I want to thank the BPU and Council for supporting these wage and benefit increases to be competitive with the local labor market and help with employee retention and recruitment.

The San Juan Generating Station (SJGS) last unit—Unit 4—shut down permanently at approximately at 10:30



a.m. on September 29 as the coal stockpile was exhausted. The project is now officially moving into the decommissioning phase. DPU has contracted with Uniper to replace this energy resource for the next several years, however, DPU will need to find a long-term replacement for the SJGS. The BPU goal to be a carbon neutral electric provider by 2040 is important direction as the community considers these replacement resources. The Carbon Free Power Project (CFPP) is one replace-

ment resource to consider as well as resources such as wind, solar and batteries. Over the next couple of quarters, staff will be presenting these options as we look to transition away from carbon emitting resources.

Going forward, the challenges with any large capital project are the same issues DPU experienced in replacing the wastewater treatment facility in White Rock: limited labor pool, supply chain constraints, schedule delays and resulting

cost escalations. Finally, in the current economic environment of rising interest rates and inflation, DPU will need to plan its large capital investments carefully as we balance loans with competitive rates for utility services. With these issues in mind, BPU established a new goal this year to "meet financial reserve targets within our 10-year financial policy, with a debt coverage ratio of 1.6 or greater every fiscal year."

“The update to DPU's vision to include being a "Community Centric Utility" is an important change as we seek to better serve our community.



# M.V.V.



## Mission

Provide safe and reliable utility services in an economically and environmentally sustainable fashion



## Vision

Be a high-performing, community-centric utility contributing to its future with innovative and diversified utility solutions



## We Value

- CUSTOMERS by being service oriented and fiscally responsible
- EMPLOYEES & PARTNERSHIPS by being a safe, ethical and professional organization that encourages continuous learning
- ENVIRONMENT & NATURAL RESOURCES through innovative solutions
- COMMUNITY by being communicative, organized and transparent

Mission, Vision, Values, Goals and Strategic Objectives:  
updated and adopted October 2022

## STRATEGIC FOCUS AREAS

### OPERATIONS & PERFORMANCE

#### GOAL: Provide safe and reliable utility services

- All utilities services are delivered safely, reliably and efficiently
- Efficiently implement and maintain secure and reliable business systems
- Develop a culture of continuous improvement
- Utility control and mapping systems and processes are accurate, safe and secure
- Be flexible and adaptable in delivering all utility operations

### FINANCIAL PERFORMANCE

#### GOAL: Achieve and maintain excellence in financial performance

- Meet financial reserve targets within our 10-year financial policy, with a debt coverage ratio of 1.6 or greater every fiscal year
- Utilize revenues to provide a high level of service while keeping rates competitive with similar utilities
- Achieve workplans while operating within budget
- Conduct cost of service studies for each utility at least every 5 years

### CUSTOMERS, STAKEHOLDERS & COMMUNITY

#### GOAL: Be a customer service-oriented organization that is communicative, efficient and transparent

- Customer service processes and systems are efficient, secure and user-friendly
- Educate Board Members on markets, contracts and production options for all electric production resources
- Utilize Voice of the Customer survey results to improve utility operations
- Stakeholders are engaged in and informed about Utilities operations affecting the community

### WORKFORCE

#### GOAL: Sustain a capable, satisfied, engaged, ethical and safe workforce focused on customer service

- Leaders invest in employee training and professional development
- Employees promote a culture of safe, ethical and customer-focused behavior
- Employees are engaged, satisfied and fairly compensated

### ENVIRONMENTAL SUSTAINABILITY

#### GOAL: Continuously, conscientiously, work toward environmental sustainability

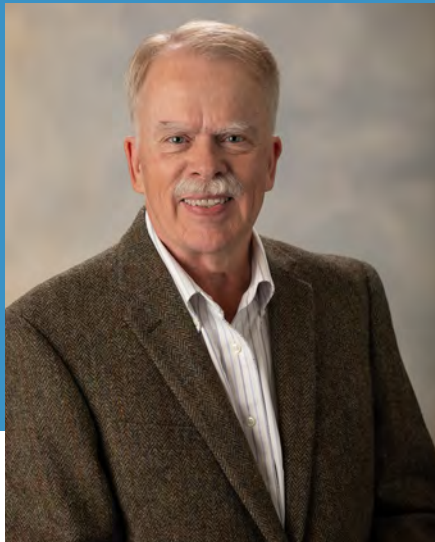
- Provide class 1A effluent water in Los Alamos County
- Promote electric efficiency through targeted electric conservation programs
- Be a net carbon neutral electric provider by 2040
- Reduce natural gas usage by 5% per capita per heating degree day by 2030 using a 2020 calendar year-end baseline and support elimination of natural gas usage by 2070
- Reduce potable water use by 12% from 143 gallons per capita per day (2020 calendar baseline) to 126 gallons per capita per day by 2030

### PARTNERSHIPS

#### GOAL: Develop and strengthen partnerships with stakeholders

- Communicate with stakeholders to strengthen existing partnerships and identify new potential mutually beneficial partnering opportunities

# Board of Public Utilities



**Cornell Wright**  
**Chair**

Appointed: July 2020 (partial term)  
1st Term: July 2021 - June 2026  
Chair: 2021, 2022



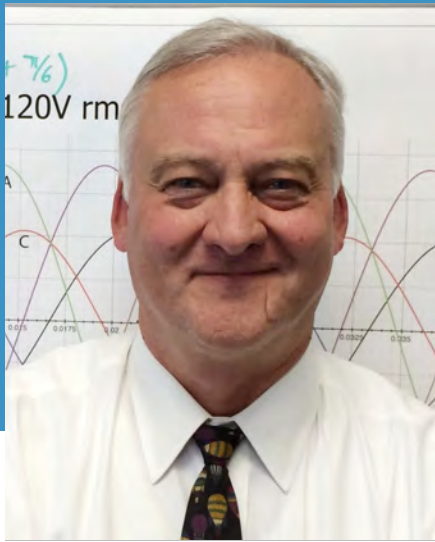
**Steve Tobin**  
**Vice Chair**

Appointed: July 2019  
1st Term: July 2019 - June 2024  
Vice Chair: 2022



**Stephen McLin**  
**Member**

Appointed: July 2014 (partial term)  
2nd Term: July 2018 - June 2023  
Vice Chair: 2015, 2020, 2021



**Eric Stromberg**  
**Member**

Appointed: July 2020  
1st Term: July 2020 - June 2025



**Charles Nakhleh**  
**Member**

Appointed: July 2022  
1st Term: July 2022 - June 2027

Consisting of five voting members and appointed by the Los Alamos County Council, the Board of Public Utilities is the governing body for the DPU. Members reside in Los Alamos and are customers of the department.

For calendars, policies and procedures, agendas, minutes and videos of meetings, visit [LADPU.com/BPU](http://LADPU.com/BPU).

The BPU meets on the first Wednesday of each month via Zoom and on the third Wednesday of each month via Zoom and in Council Chambers, 1000 Central Ave., Los Alamos, NM.

Meetings are at 5:30 p.m. and streamed online. To view them, visit: [LADPU.com/BPUliveproceedings](http://LADPU.com/BPUliveproceedings).

Members of the public are welcome to attend.



# Safety

## Safety Culture Vision

DPU seeks to create a safety culture where employees practice safety every hour on the job, while no one is watching, because they want to and not because they have to. To create this safety culture, DPU employees believe in:

- Putting safety first
- Leading by example
- Establishing & enforcing a high standard of work performance
- Briefing or tailgating before every job
- Making work and safety suggestions

## Safety Committee

DPU employees representing each utility division comprise the 13-person Safety Committee. They hold a committee meeting quarterly to review and share best practices. They also analyze accidents, incidents and near misses, and discuss and implement appropriate prevention measures.

Each member of the Safety Committee is responsible for moving that discussion forward to the rest of the staff at the next weekly group meeting and sharing agreed-upon prevention measures.

## Safety Employee

The Safety Employee of the Quarter program was developed by the Safety Committee with an intent to reward those who most clearly and effectively demonstrate DPU's safety culture vision.

DPU employees may nominate fellow employees who exemplify the safety culture vision at any time. Safety Committee members review the nominations each quarter and select one person to recognize and reward with an extra day of administrative leave.

# SAFETY EMPLOYEE OF THE QUARTER

QUARTER 1 / FY23

**Joel Martinez**  
Water Systems Electrical Technician  
Water Production Division



Joel ensured that what potentially could have become a critical incident wouldn't happen on his watch by taking the initiative to react quickly and appropriately. During a staff meeting to discuss MCCs and the electrical panels at each well, an employee moved too close to an open electrical panel at one of the wells. The employee wanted to get a better look at a diagram inside the panel door. As he moved toward it and started to point in tight proximity to the panel, Joel quickly stepped in. He asked the employee to back up as he shut down power to the unit. Joel's reaction was quick, professional and showed his dedication to the safety of those around him.

**JONATHON GONZALES**  
Trainee  
Wastewater Treatment



Q4 / FY22

**ERWIN LOPEZ**  
Engineering Aide  
Gas, Water & Sewer



Q3 / FY22

**JAMES SUAZO**  
Journeyman Lineman  
Electric Distribution



Q2 / FY22

**CHARLES LOPEZ**  
Trainee  
Wastewater Treatment



Q1 / FY22



# Electric Distribution



## STEPHEN MAREZ

ACTING DEPUTY UTILITY MANAGER

Registered Professional Engineer  
Bachelor of Science in Electrical Engineering  
Master of Information Systems  
Certified Project Management Professional

Memberships:  
Institute for Electronic & Electrical Engineers  
National Society of Professional Engineers

### In a nutshell...

FY2023 got off to an exciting start when a lightning strike on Barranca Mesa not only disrupted power, but also started a small fire on the canyon top. The photo on page 15 gives a bird's eye view of that occurrence. Our lineworkers are in red helmets.

That incident reinforces the danger trees can pose around power lines, particularly when lightning strikes. That's why DPU contracts with Southwest Fire Defense to trim or remove branches and trees that ED's staff has identified as hazards. Staff inspects the overhead lines throughout the county on a regular basis and intense drought conditions have increased the need for this maintenance as large numbers of trees have died in the past few years. Where these trees could hit power lines if they fall, they are added to the list for removal.

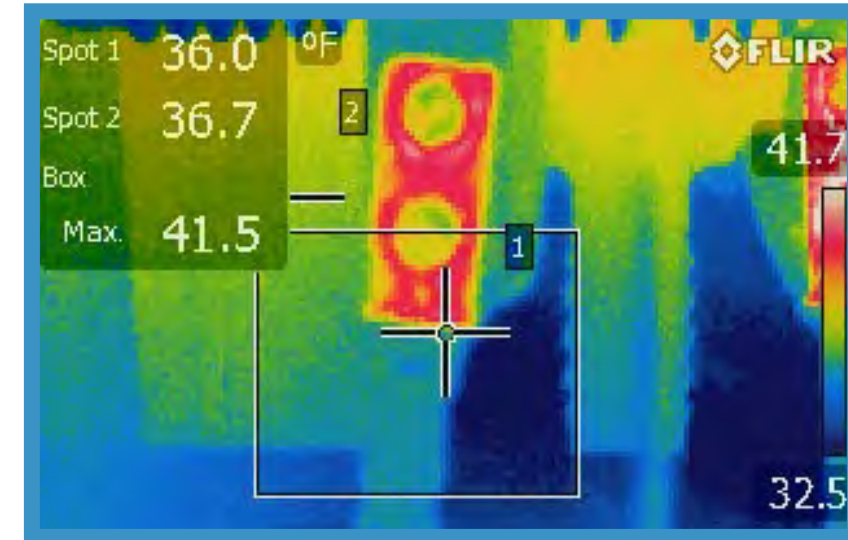
During high wind events, even trees that are still very green can fall. It is impossible to foresee where live trees may fall and DPU does not clear cut healthy trees within impact proximity of power lines.

Crews have been using thermal imaging to detect heat caused by loose connections or damaged electric components. Proactive detection of these issues allows crews to make repairs and prevent power outages.

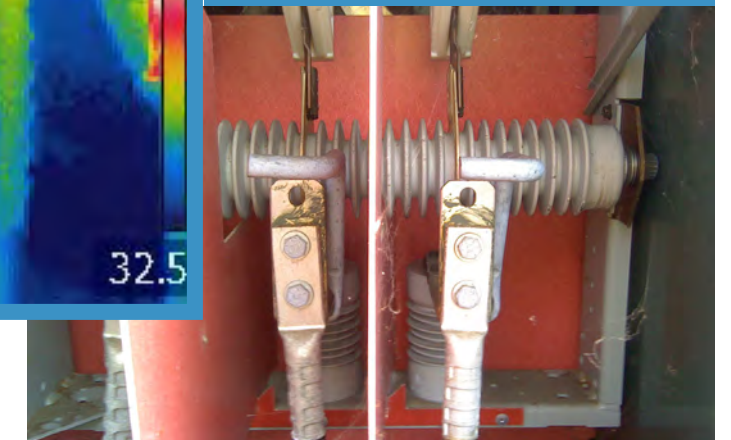
As has been the case in recent years, customer service requests for power upgrades, solar installations and new services come in on a continual basis. In the first quarter, we received 21 applications for new PV installations.

In Q1, we were anxiously awaiting a new cable pulling machine! It finally arrived in November. This machine will be a great asset to the electric crew, increasing our capability to safely and efficiently remove or replace underground cable for large projects.

The Connie/Cheryl project to replace electric primary cable



Electric Distribution used infrared technology to find this cable termination defect.



and switches on Aragon Street in White Rock is complete. This project was targeted as a priority in the asset management process because the area has experienced many faults in the past. Construction in this area included the installation of a new switch and a line extension.

The electric distribution supply chain is greatly disrupted. Many products such as transformers and termination components have lead times of over 60 weeks. The prices for these items also increased by more than 500%. These supply shortages and inflated prices are expected to cause delays even for future projects that have yet to be proposed.

Engineering staff continue to work on designs and specifications for all current and upcoming construction projects.

#### Projects completed in Q1

Connie/Cheryl Electric Primary Replacement Project  
\$150,000

#### In construction

- El Mirador Subdivision (8 new installations)
- White Rock Water Reclamation Facility (transformer and power line extension complete)
- The Hills Apartments
- Arkansas Place Apartments (primary cable to Hilltop Plaza installed)
- The Bluffs Apartments
- LASS Protection Settings

#### In Design and Procurement

- Ski Hill Water Line
- Oppenheimer Primary Replacement
- La Senda Primary Replacement
- East Gate Primary Cable Replacement
- White Rock Visitors Center Food Trucks and Pavilion
- East Jemez Conduit Intercepts for LASS Feeders

#### Pending Developer Information for Design

- Tres Alamos Subdivision
- Piñon Elementary School
- Chamisa Elementary School
- Arbolada Subdivision
- Cañada Bonita

#### Consulting and Support

- El Vado Hydro Electric Transformer Project-Consulting
- Abiquiu Hydro Electric Transformer Project-Consulting
- Hilltop House Demolition

#### On the Radar:

- San Ildefonso PV



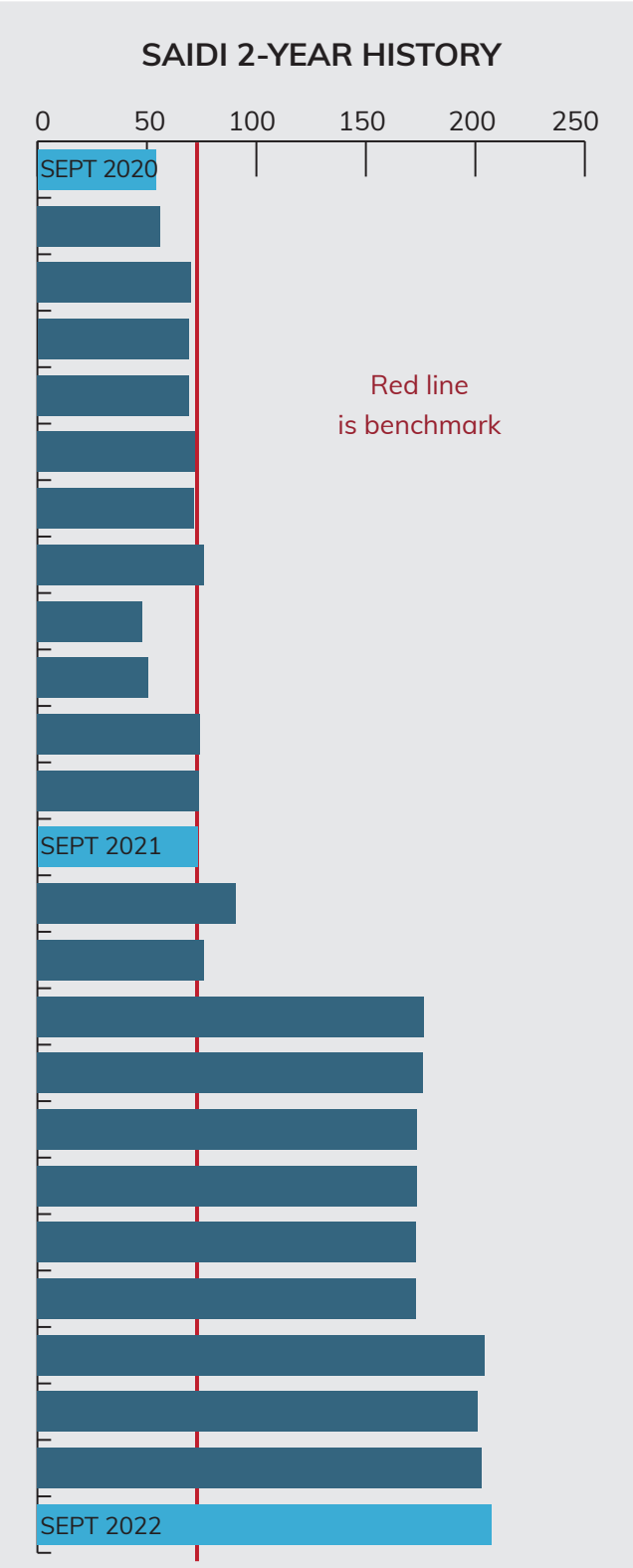
# SAIDI

## System Average Interruption Duration Index

As a reliability indicator, DPU measures its System Average Interruption Duration Index (SAIDI). This is a formula to determine the annual average time that a DPU customer could expect to be without power. According to the Energy Information Administration (EIA), the mean SAIDI in 2021 was 126 minutes without major events and 476 minutes with major events for 809 utilities across the nation (excluding U.S. territories). This information is available on the EIA website - <https://www.eia.gov/electricity/annual/>. DPU set a goal in 2008 to reduce its SAIDI to below 60 minutes (including major events). At the end of quarter 1 of FY2023, DPU's SAIDI increased slightly from 204 to 207 minutes\* which includes major events. While this is well above the DPU 60-minute goal, it is also well below the 2021 national SAIDI of 476 minutes. It is within three minutes of New Mexico's 2021 SAIDI of 204.

\* DPU's SAIDI does not include outages caused by LANL substation failures.

PHOTO AT TOP RIGHT:  
DPU's Electric Distribution lineworkers were among the responders when lightning not only took down power on Barranca Mesa, but it also started a small fire.

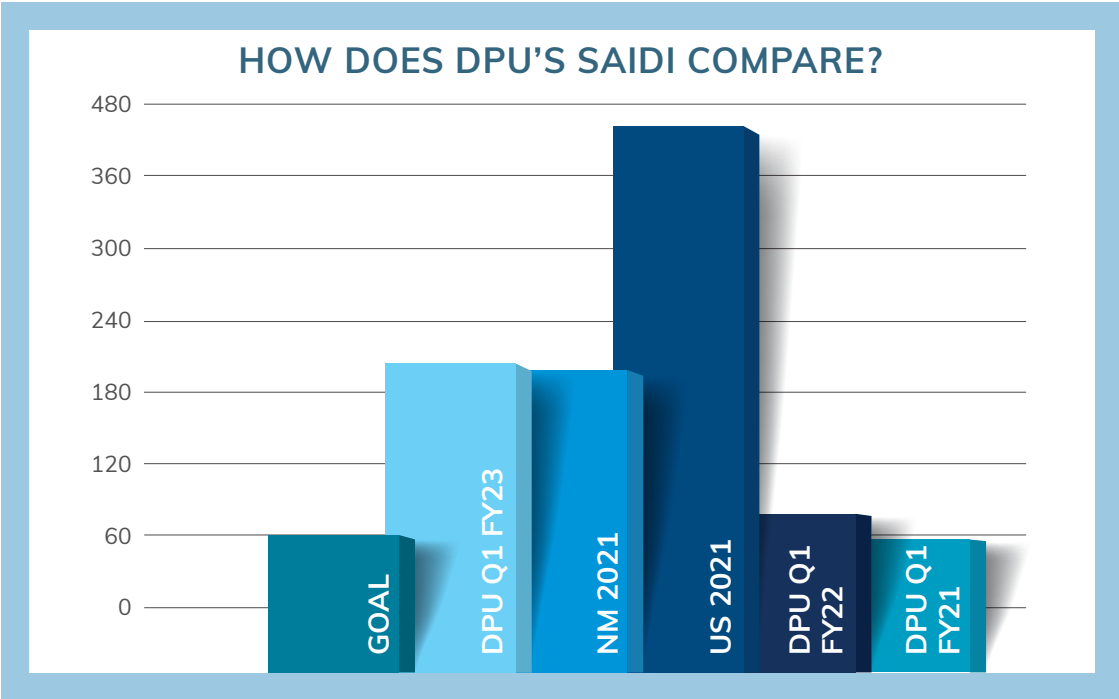


### Results & Comparisons

As of Sept. 30, DPU's rolling 12-month SAIDI for Q1 was 207 minutes in FY2023; 73 minutes in FY2022; and 54 minutes in FY2021.

Reliability reports issued by the Energy Information Administration\* demonstrate that DPU's current SAIDI is close to the average of combined New Mexico utilities (includes New Mexico cooperatives, investor- and municipal-owned utilities) and lower than the average of combined U.S. utilities through December 2021. Note that the EIA will release calendar 2022 SAIDI data in Oct. 2023.

\* [www.eia.gov/electricity/annual/html/epa\\_11\\_01.html](https://www.eia.gov/electricity/annual/html/epa_11_01.html)





# Distributed Generation

## Distributed Generation

Unlike conventional power generating stations that are centralized and require transmission lines, distributed generation resources are decentralized and close to the load, such as roof-top solar systems. In addition to the utility-scale solar array on the landfill, Los Alamos has several commercial and residential customers who have opted to install small solar or photovoltaic distributed generation systems.

### Total Distributed Generation

As of the end of Q1, distributed generation resources totaled 3,440 kw connected to the distribution grid.

- Residential systems = 1,757 kw
- Commercial systems = 1,683 kw

### New Distributed Generation

A total of 141 kw of distributed generation were added to DPU's electric distribution grid during Q1.

### Pending Distributed Generation

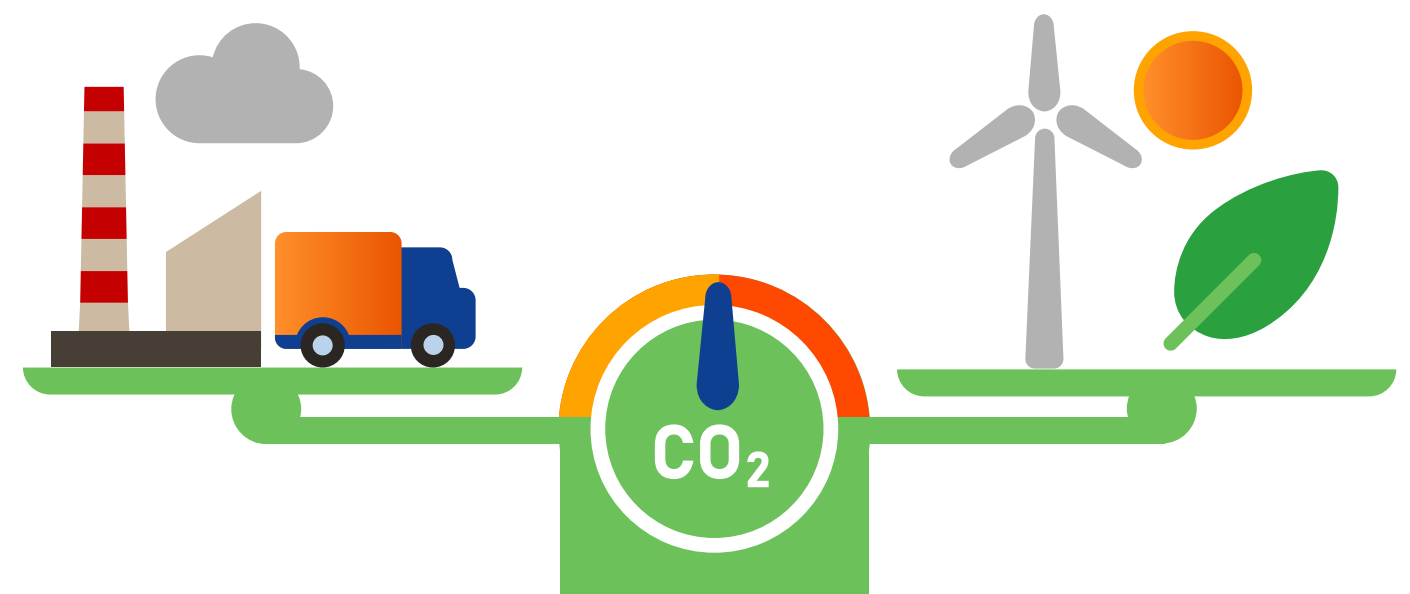
Currently customers are in the process of adding another 302 kw of distributed generation to DPU's electric distribution.



## Carbon-Neutral Electrical Energy Provider

In 2013, the Board of Public Utilities adopted the following: The Department of Public Utilities will be a carbon-neutral electrical energy provider when the electricity distributed to Los Alamos County consumers is generated or purchased from sources that in their normal operation cause no net release of carbon dioxide to the atmosphere.

1. "Los Alamos County customers" means those customers scheduled in the Los Alamos County Code of Ordinances Section 40-121; this does not include DOE/LANL.
2. "No net release of carbon dioxide" means that purchases or generation of carbon-based electrical energy, necessary when carbon-free supplies are not practically available to supply Los Alamos County consumers, will be fully offset from previous sales of surplus carbon-free electricity to other entities.





# Electric Production



**JORDAN GARCIA**  
DEPUTY UTILITY MANAGER

Bachelor of Business Administration-Finance  
Master of Business Administration

## In a nutshell...

### San Juan Generating Station/City of Farmington/Enchant Energy Carbon Sequestration Project Proposal

San Juan Generating Station terminated operation on September 29. The unit finished strong with a very high-capacity factor and was only derated due to poor coal quality. Because of the shutdown and termination of the New Exit Date Amendment (NEDA), the negotiations with Farmington and Enchant have all but ended. In August, Farmington acting independently of Enchant sent a letter to current ownership insisting the plant be turned over to Farmington at the end of the NEDA period. In September, Farmington took the disagreement to the courts, aiming to force the current ownership to give Farmington exclusive rights to the plant after the shutdown. The argument has since moved to arbitration per current agreements and there is a pending termination of the NEDA under consideration by the Federal Energy Regulatory Commission (FERC). LAC and other owners of San Juan are hoping to continue decommissioning activities at the San Juan Generating Station.

### Decommissioning

All plant participants initiated a decommissioning study in hopes that it will be the final study for the San Juan Generating Station. At the completion of the study, a request for bids was solicited from industry-recognized demolition contractors and five bids were received—three of which were very competitive. The bids are approximately \$80 million net of salvage value and good through the end of 2022. LAC's share of the \$80 million is approximately \$2 million. This estimate will vary depending on the Net Present Value (NPV). Inflation and interest rates are currently highly volatile and will play a significant role regarding the NPV. The Los Alamos Power Pool (LAPP) has collected about

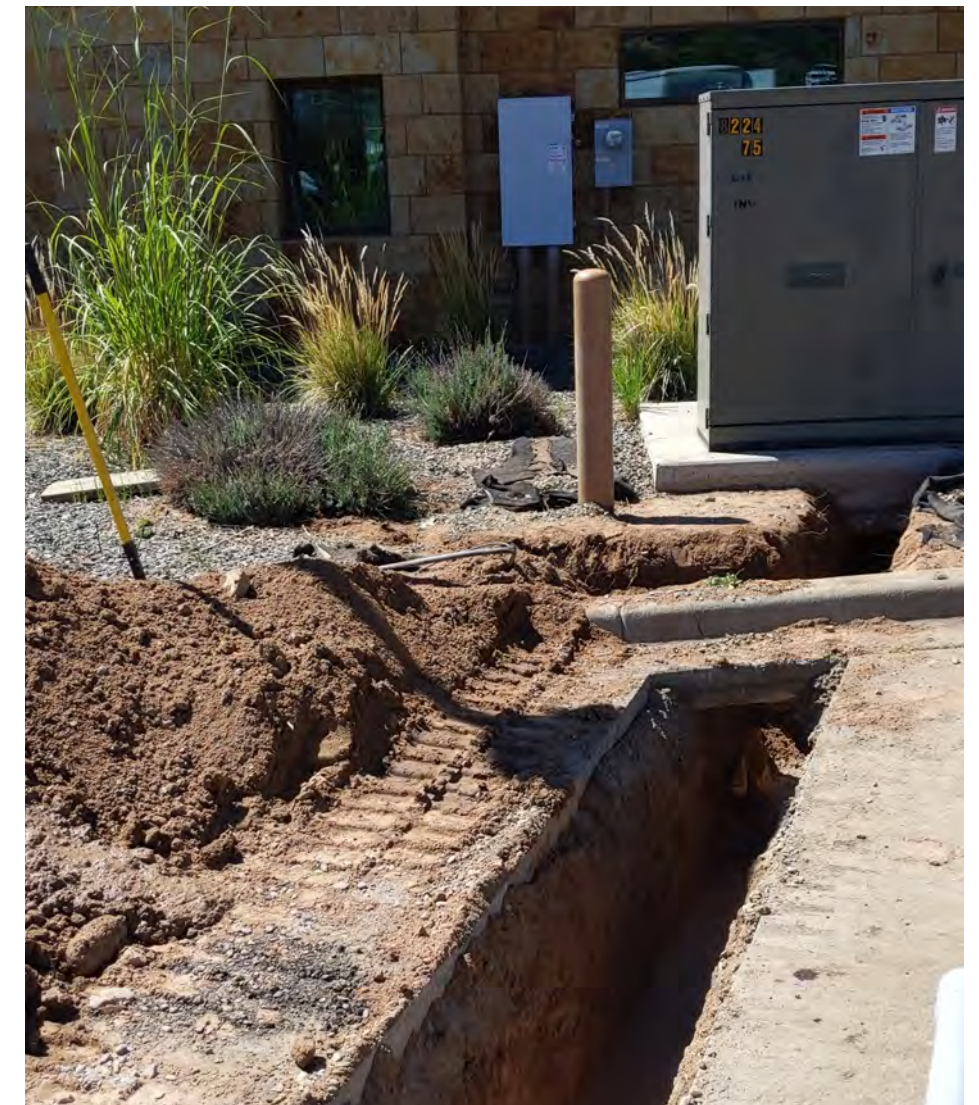
\$6 million to pay for its share of the decommissioning cost. In conjunction with the decommissioning study, the firm of Burns and McDonnell has been contracted to put together a plan required by San Juan County. An ordinance was instituted by San Juan County that requires the plant to be demolished, thus eliminating retirement-in-place options. San Juan County must review and approve of the demolition plan prior to executing the contract.

### Hydroelectric Facilities

Staff continues to perform recurring maintenance as scheduled and support the planned capital projects. The El Vado Transformer Replacement Project is progressing with a delivery time of 26 to 28 weeks for the equipment. The installation will most likely be delayed until spring 2023 prior to the run-off.

The El Vado Dam Restoration project began on May 23 when the minimum operating pool for the El Vado hydroelectric facility was reached. Generation was stopped and flow control was passed to the U.S. Bureau of Reclamation (USBR). The El Vado hydroelectric facility is expected to be offline for two spring run-off seasons while the USBR completes the dam face rehabilitation before beginning work on the spillway. DPU's power operators are making short-term market purchases as needed to account for this planned outage. El Vado is expected to begin generating again in spring of 2024.

Using American Recovery and Reinvestment Act funds, DPU purchased a replacement trans-



Trenching for installation of EV DC fast chargers at the White Rock Visitors Center was completed in August

former for the Abiquiu facility. That transformer is currently stored at the plant. A Request for Proposals (RFP) was prepared in Q4 of FY2022 for the transformer removal and replacement. We received bids for the project and, as expected, they were significantly higher than pre-pandemic cost estimates. Approval by BPU will be sought in quarter two of this fiscal year.

The Army Corps of Engineers is planning some significant work on the tunnel gates, vent shaft and

outlet-works at Abiquiu. DPU staff is working closely with the Corps on the work identified on the outlet works steel liner and vent shaft as it relates to the hydro facility operation. The vent shaft work is a continuation of a 2016 project during which the County paid for the installation of a butterfly valve in the vent shaft to mitigate safety concerns about extensive corrosion. The valve installation allowed the Abiquiu hydroelectric plant to return to service as soon as possible. The



# Electric Production (continued)

Corps wants to finish the repairs on the remaining section of the vent shaft located above the newly installed butterfly valve. The project is currently estimated at \$4 million of which the Corps is seeking 50% from the County. The design for the project is expected by the end of calendar 2022 and Los Alamos intends to incorporate this capital project into the FY2024 budget.

Preliminary site plan drawings were prepared for the Abiquiu office addition that is being planned to mitigate the risk of a catastrophic failure of the Abiquiu transformer causing harm to personnel.

### One-Megawatt Solar Array/Landfill

An inverter failed at the one-megawatt solar array on the Los Alamos landfill, taking 400 kilowatts offline. Staff received one bid after the subsequent repair project was advertised a second time. The agreement with the successful bidder to repair the facility was approved at the April 2021 Board of Public Utilities' meeting. The term of the agreement ended without the work being completed. Staff is seeking new bids to replace the failed inverter.

### Electric Vehicle Charging Stations

On September 18, 2020, DPU received a signed project agreement from the New Mexico Environment Department (NMED) formalizing two grants for the construction and operation of two electric vehicle direct-current, fast-charging stations—\$63,800 for one charger at the White Rock Visitor Center parking lot and \$71,800 for one at the Los Alamos County Municipal Building parking lot. ChargePoint Inc. is the selected equipment supplier and Allied 360 is the selected installation contractor. The agreements and the task order for the chargers, operations and maintenance support services, and construction work were approved by the BPU on April 20, 2022, and the County Council two weeks later with a project budget of \$285,600. **The chargers were ordered in June from ChargePoint Inc. with an anticipated shipping date by the end of the year. Trenching, installation of conduits and concrete pads, and site restoration at the White**

Rock parking lot site was completed in September, with electrical work on hold until the chargers are received. Site work at the Municipal Building parking lot is planned for the second **quarter of FY2023**. Installation and commissioning are expected to be completed within two months of receiving the chargers, weather permitting.

### Carbon Free Power Project

Through DPU's membership with the Utah Associated Municipal Power Systems (UAMPS), DPU is participating in the Carbon Free Power Project (CFPP) as a generation resource option. The CFPP is a planned 462 MW (gross electric capacity) nuclear generating station to be built in Idaho using small modular reactor (SMR) technology.

In July 2021, the Council approved DPU's continued participation in the CFPP project through the remaining phase 1—completing the Combined Operating License Application (COLA). The next off ramp is scheduled for the 3rd quarter.

The primary goal is to increase the subscription in the project from utilities outside of UAMPS who have expressed interest but have not signed a power sales contract. This past quarter UAMPS staff has worked diligently with these interested utilities, specifically on solving the lack of transmission to serve these utilities. Transmission availability, paths and cost are the most significant barriers for the utilities in the Northwest. UAMPS submitted transmission service requests from the CFPP to the Bonneville Power Authority with both Pacific Corp and the Idaho Power Company. A wires solution is preferred but as an alternative, UAMPS staff is exploring exchange opportunities with utilities who currently have transmission capacity on these paths.

NuScale (developer of the small modular reactors) and Fluor continue to work on project cost estimates for a six-module plant, with the goal of achieving a Levelized Cost of Energy (LCOE) of \$58/MWh with full subscription. UAMPS expects to have the Class 3 cost estimate (ranging from -20% on the low side, to

+30% on the high side) by November. The September milestone date and next off-ramp for the project is expected to slide until the Class 3 estimate and Economic Competitive Test (ECT) are completed. The first subscribers in the project will have an opportunity to increase their subscriptions prior to the remaining capacity being committed to other utilities.

### Utility-Scale Renewable Projects

In January 2020, the Board and Council approved a Power and Renewable Energy Credit Sales Agreement with Uniper Global Commodities North America, LLC. The contract quantity is a firm 15 MWs Around the Clock (ATC) Power Purchase Agreement (PPA). It is a take-or-pay PPA for a 15-year term with no escalator. Under the agreement, renewable energy will be sourced from two power-generation facilities now under contract in New Mexico. Solar power will be supplied from a project in northwest San Juan County when it's completed. However, the current supply chain issues along with the solar tariffs being reviewed by the commerce department may further delay the commercial operation date. The wind power is coming from the Pattern Energy wind center in central New Mexico. The contracted Energy began flowing on January 1, 2022.

### Electric Coordination Agreement (ECA), Post 2025

Negotiations continue with DOE-NNSA on a post 2025 ECA. Both parties are meeting monthly with the goal of having a tentative agreement by June 2023. EP staff is supporting DOE-NNSA efforts on updating their Interagency Agreement (IA) with Western Area

Power Administration (WAPA) that would allow DOE-NNSA the ability to contract through WAPA for PPAs for periods up to 30 years. DOE indicated that the IA would be finalized this summer. The first project under consideration is an 8 MW solar photovoltaic (PV) array to

San Juan Generating Station terminated operation on September 29. The unit finished strong with a very high-capacity factor & was only derated due to poor coal quality.

be constructed at LANL for an expected 25-year term. On March 10, staff met with the BPU and Council subcommittee to provide an update on the post-2025 ECA negotiations and seek guidance on the sharing of renewable energy with LANL from County-owned facilities. The consensus of the subcommittee and DPU staff was to share the renewable energy as we've always done based on energy usage. The goal is for the Los Alamos County service area, which includes all power demands with the County boundaries, to be served with carbon-free electric energy and not distinguish between County and LANL individual loads. The team is finalizing the changes to the contract statement of work and the exhibits to the contract.

### Sandia and Kirtland Air Force Base Merchant Desk Services

To meet the combined power demands of Sandia National Laboratories and Kirtland Air Force Base, DPU staff is providing support for a post-2023 PPA. These efforts require an updated IA between DOE-NNSA and WAPA that is expected to be executed in the next three months. Kirtland Air Force Base is **working with a consultant on how best to meet the power demands into the future for a**

Department of Defense (DOD) Facility. Factors under consideration include resilience while moving toward sustainable resources such as renewables. DPU staff is supporting this effort as Kirtland Air Force Base's Merchant Desk Service provider.

### Integrated Resource Plan (IRP) Implementation

On April 8, 2022, contractor FTI presented the IRP findings to the BPU

for discussion and feedback. Staff presented final IRP findings and report to the BPU and County Council in June. Staff have developed an implementation plan to acquire the generation resources which are part of the IRP's preferred portfolio and meet DPU's reliability, operational and sustainability goals. On July 11, staff distributed a Request for Information (RFI) to more than 20 electrical generation developers and marketers, seeking offers for 30 Megawatts (MW) of battery energy storage systems, 70 MW of PV generation, and 50 MW of wind generation. No offers were received for energy storage or wind. One offer was received for firmed PV generation, which will be evaluated. Staff continues efforts to seek out and evaluate new resource opportunities, including participation in a UAMPS search for geothermal resources, and pursuit of PV and storage both within and outside of Los Alamos County.

# Electric Production (continued)

## INITIATIVES FOR FUTURE ENERGY RESOURCES

The Future Energy Resources Committee (an ad hoc citizen committee) prepared a July 2015 report to recommend future energy generation resources for Los Alamos County to meet a goal to be a carbon neutral electric provider by 2040. The Board of Public Utilities adopted most of the recommendations in January and March 2016. DPU's plan to implement the carbon-neutral goal is described here.

### FER Timeline

The timeline below shows the strategic plan with several important dates which play a significant role in the decision making process to achieve the goal to be a carbon neutral electric energy provider by 2040 while sustaining the electric demands of the community.

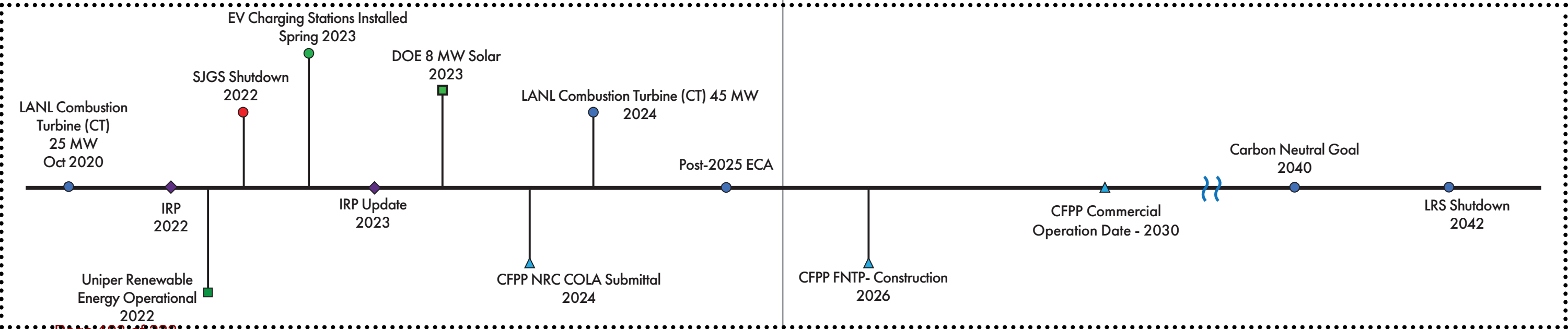
It started with the development of an Integrated Resource Plan (IRP) in 2017, which identified the most economical options to achieve the goal based on the best information available at that time and the County's partnership through the Electric Coordination Agreement with DOE-NNSA. Staff developed a new IRP in 2022.

There are three contract dates which provide an opportunity to shape our future power supply. First, the expiration of the San Juan Generating Station Agreement occurred in September. Second, the County's expected exit from the coal-fired Laramie River Station, where the County signed a life of the plant power purchase agreement, in 2042. Third, the expiration of the current Electric Coordination Agreement (ECA) between the County and DOE-NNSA LANL will occur 2025.

Through the current ECA, resources are pooled together to serve the combined load of the County and Los Alamos National Laboratory. Today LANL accounts for approximately 80% of the total electrical demand. An extension of the ECA along with the negotiated terms and conditions will have a significant impact in DPU's decision to add new or replacement generation resources to the mix to ensure we don't have an over or under supply of energy post 2025.

The timeline below will be updated in the near future pending input from BPU and Council regarding Los Alamos Resiliency, Energy & Sustainability (LARES) task force recommendations and in consideration of generating resource recommendations from the 2022 IRP.

The Carbon Free Power Project (CFPP) is a proposed nuclear electric generation facility to be constructed at Idaho National Laboratory utilizing small modular reactor (SMR) technology developed by NuScale Power. Utah Associated Municipal Power Systems (UAMPS) and NuScale Power entered into a teaming agreement to investigate the viability of developing the Carbon Free Power Project. UAMPS' participating partners are the project owners. UAMPS' participating partners expect to allow other entities to subscribe power through Power Purchase Agreements. Of the 46 municipal and cooperative utilities that comprise UAMPS, 28 members, including DPU, have subscribed power from the CFPP and make the decisions regarding UAMPS' involvement.





# Gas, Water & Sewer



**JACK RICHARDSON**  
DEPUTY UTILITY MANAGER

Registered Professional Engineer  
Bachelor of Science in Civil Engineering

## In a nutshell...

### ALL GWS Groups

COVID continues to plague the crews with occasional cases and resulting time off work. DOE/LANL and their union associates continue to recruit our personnel by offering significantly higher salaries for a temporary multi-year period. Union negotiations are ongoing with the County with the goal of stopping the loss of staff to DOE/LANL and other surrounding agencies.

The wet summer continued. The good news is the aquifer was not as heavily stressed as usual during the dry irrigation season. The bad news is water sales and revenue for the NP system were significantly less than normal.

The Sr. Office Specialist for GWS and ED has worked hard to organize the uniform systems from our various suppliers/cleaners. An RFP for potentially new suppliers has been finalized. A supplier selection and new contract is anticipated in the next quarter.

### Gas, Water, Sewer (GWS)

The field prep work for the gas system entry station upgrades and SCADA showed good progress. GWS Superintendent Sammy Maestas has tested the qualifications of six different steel gas pipeline welders for approval to provide steel pipeline welding on our gas system for this project. The annual gas system PRV station maintenance checks, gas pipeline leak survey and gas key valve testing were completed ahead of the cold season.

GWS staff continued water and gas meter changeouts as a high priority facilitating the AMI program. Water line breaks were fairly frequent this quarter, with many of them being on smaller diameter delivery lines where the crews completed wholesale delivery line replacements rather than simple leak repairs due to the age and



condition of the delivery lines that were leaking. There were a few sewer overflow events. GWS crews need to spend some time next quarter in the canyons doing a little more cleanup of vegetation and earthwork that was done so they could access the recent major sewer overflow event that occurred in Pueblo Canyon last quarter.

The GWS fleet received a number of replacement vehicles this quarter. Also received this quarter was the complete replacement, for all GWS crews, of the SCBA (Self Contained Breathing Apparatus) equipment used during critical confined space activities. The old equipment was antiquated and no longer met OSHA guidelines.

The single unified project RFP to locate, test, repair or replace, and permanently mark all main line gate valves in the WP, DW and

NP systems and the GA system, as well as for the WC system manholes and cleanouts, is in the final stages of purchasing/legal review. The project will be bid next quarter. The project still includes uncovering buried and paved-over valves and manholes as well as locating remote valves and manholes in the canyons and fields outside the urban areas. This multi-contractor/multi-year approach will allow the DPU to schedule this work within the constraints of each fiscal year's approved budget and allow enough time to complete the needs of each system.

Slow, but steady, progress on the El Gancho, Paseo Peñasco, North Road, Rio Bravo, Fairway and East Gate sewer lift stations (SLS) continues. Our realistic schedule now calls for completion of all field prep work by the end of November

2022 with installation of the first SLS SCADA equipment in December 2022. On-call consultant BHI has completed the final design for the project to eliminate the Ridge Park SLS and replace it with a short gravity sewer main into the Timber Ridge SLS. The project is out to bid this quarter and will be awarded next quarter.

This summer's active fire hydrant testing season was completed with no known water pipeline breaks resulting from hydrant testing.

GWS is down to two primary staff (both sr. pipefitters). The standby system was revised to allow for secondary staff, albeit the more experienced secondary staff, to stand in as primaries. At the very least, they answer the phone and coordinate with primary staff to come on site if primary staff is required to safely make a field



# Gas, Water & Sewer (continued)

determination. Many duties during a standby system call-out can, and have been, completed by secondary staff so hopefully this revision will not become too burdensome for the staff during this period. We are now purposefully holding open two positions—hoping that the union negotiations are concluded successfully, and we may have a possibility to bring back some of the experienced people we recently lost to competition.

## Water Production

Management staff completed the coordination with DOE/LANL staff on the revisions to the ownership and O&M responsibility determinations for DPU pipelines on DOE property. Finalizing this project is now in the hands of the DOE's legal/real estate staff. The pipeline relocation project along Pajarito Road on DOE land is progressing slowly.

Water Production staff finished data mining and



Crew members, utilizing the new SCBA safety equipment required for confined space entry, installed SCADA and motor control equipment inside the El Gancho lift station wet well recently. This equipment helps DPU staff analyze conditions inside lift stations, such as water levels, discharge pressure, flow rates and electrical parameters. Armed with that data, we can better understand the operational dynamics and improve preventive maintenance activities.

organizing our aquifer water levels over the past few months. The data indicates that the aquifer, in the area where the three Los Alamos County well fields are located, have averaged approximately 0.5 feet per year drop over the past 10 years. We believe this is indicative of a localized aquifer drop within the well field area and that the larger regional aquifer is stable.

Water Production staff have also been researching all the meters in the WP and NP systems. This effort is in response to a notification from the Office of the State Engineer (OSE). Verification of all water meters for compliance with State regulations (approved meter, calibration testing, etc.) has been requested along with some modifications to the OSE reporting form for water usage in relation to the County's water rights. Once all data has been accumulated and verified, a formal response to the OSE will be submitted.

Progress was made on the project for Electrical and Mechanical Upgrades to all WP Well Stations, with work begun on the design plans and specifications package. Coordination between the contractor and the firm completing the SCADA Transition Project will be necessary to ensure equipment and system compatibility.

OW4 is scheduled for shut down, possibly as early as next quarter, to install the new replacement MCC and miscellaneous control and

electrical equipment. A new split shaft modification will be simultaneously completed with this shut down to better enable future O&M activities of the OW4 motor and pump. OW2 is still in the supply chain regarding receipt of new pump and control equipment. The motor for Pajarito Well 2 is currently being rebuilt and refurbished and is scheduled to be re-installed next quarter.

Under the Tsankawi Chlorination project, final equipment mounting and electrical installation, as well as work on instrumentation and control systems, are ongoing. The construction of the Overlook Park Booster Station for the NP system is complete and functions well but we are still waiting for closeout documentation of O&M manual and as-built drawings. The design and specification package for refurbishing/repainting Barranca Tank No. 2, adjacent to Barranca Elementary School, has progressed this quarter. The NP system Bayo Booster Station Tank No. 2 Project (Phase One) is still delayed by supply chain issues but is now scheduled to restart in November.

Even with extended employee leave taken within the division, the WP group was able to cover the work and complete the heaviest portion of the high-water use season successfully without undue stress.

## Wastewater Treatment

Construction continues on the White Rock WWTP replacement

project—primarily excavation, steel and concrete work so far. Equipment has been ordered and is still in the supply chain. The project to add tertiary filtration equipment to the LA WWTP, to upgrade this WWTP's effluent classification from 1B to 1A, is also still in the supply chain and the anticipated restart remains February 2023. The in-house final design of the compost facility upgrade project remains in progress.

The alarm call-out system at the LA WWTP malfunctioned again this quarter and repair and/or replacement has been scheduled for next quarter. The SCADA system at the LA WWTP is scheduled to receive upgrades in conjunction with the implementation of the new SCADA system at the White Rock WWTP. An upgraded and more robust alarm system will be included in this work, scheduled to be completed in 2024, and will be active for both plants in the future.

## Meter Reading

It has been business as usual for the meter reading crew. Meter changeouts still occur as rapidly as GWS staffing and scheduling allow. The meter read crew is expected to remain at the present staffing level of three for the foreseeable future.



# Engineering



**JAMES ALARID**  
DEPUTY UTILITY MANAGER

Registered Professional Engineer  
Bachelor of Science in Civil Engineering  
Master of Science in Civil Engineering

Memberships:  
American Society of Engineers  
American Water Works Association

## In a nutshell...

The first quarter of fiscal year 2023 has been busy with construction activities. The White Rock Water Resource Reclamation Facility Project is proceeding on schedule. The concrete structure associated with the oxidation ditch is nearly complete, the piping below the filtration building is nearly in place and the concrete floors will soon be poured. The entrance works building is close to having foundations and floors poured. Most of the electric conduits throughout the site have been installed.

The Otowi Well No. 2 building and site work is complete. The electric gear, pump motor and pump shaft will not be received for a few months. Once the remaining equipment is received the well will be completed and tested in April of 2023. Of all our projects, this one is the most impacted by supply chain delays. The project was originally scheduled to be complete in the spring of 2022.

The NM-4 Water Transmission Line and Chlorination Building is nearing completion. The final electric and process equipment installation will take place in November and the new chlorination process will be placed into service by the end of November.

One bid was received for the El Vado Fiber Optic project. The bid was not responsive since it did not have some of the required information. Additionally, the price was double the available budget. The project will be deferred and reconsidered in the FY2024 budget.

The contract to install a new transformer at the Abiquiu Hydroelectric Plant will be awarded in November. This work is scheduled to be complete by March 2023.

The Canyon Road Repaving and Utility Upgrade Project reached substantial completion in October. A number of sewer, water and electric upgrades were completed as part of the project.



DPU's engineers coordinated a project with the UNM Civil Engineering program. Students are working on a process to use a drone to capture 3D LIDAR images of structural steel in reinforced concrete structures to perform quality assurance/quality control inspections. The project was conducted on the construction site of the White Rock Water Resource Reclamation Facility

The 33rd, 34th and Arkansas Road and Utility Upgrade Project was bid in the spring of 2022 and no bids were received. The project was bid again in October and bids should be received in early November. Work will begin in the spring of 2023.

The Gas Border Station Project is in progress. The work in White Rock is halfway complete. Work on the two Los Alamos border stations will be complete by the end of November.

The Water Production SCADA Replacement Evaluation is nearing completion. The consultant has completed the field work to assess and

inventory the existing SCADA system and communications equipment. They have also completed an evaluation of the available communication alternatives for a new system. The final evaluation is scheduled to be complete in December.

The design of the Water Production Wells Electrical and Mechanical Upgrades is ongoing. The consultant has submitted a 50% design and the final design documents should be complete by January 2023. A Drinking Water State Revolving Loan for construction of these improvements has been secured. The project will

be bid as soon as the design is complete.

The project to replace about 2,500 feet of 16-inch waterline along Pajarito Road on LANL property is in the final stages of design. The materials have been pre-ordered for the project to keep the project on schedule for construction in the summer of 2023.

The design for repainting and performing upgrades to Barranca Mesa Tank No. 2 is nearing completion. The final design is expected in November and the project will be advertised for bids in December.





# FY2023 Capital Improvement Plan

PLANNING/DESIGN       CONSTRUCTION █████		QTR 1			QTR 2			QTR 3			QTR 4		
		JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE
BUDGETED													
ELECTRIC PRODUCTION \$145,000													
El Vado Backup Generator Diesel Tank Replacement	85,000											█████	
Extend Abiquiu's Interior Concrete Deck	60,000											█████	
ELECTRIC DISTRIBUTION \$1,725,000													
Replace Underground Residential Distribution	1,350,000				██████████								
Replace Overhead Distribution	300,000				██████████								
Electric distribution replacement on Arkansas Ave	75,000											█████	
GAS DISTRIBUTION \$575,376													
Rose Street Utility Upgrades	115,376	DEFERRED											
Upgrade Utilities in Deacon St Reconstruction	85,000												
SCADA Pressure Monitoring Stations	375,000											█████	
WATER DISTRIBUTION \$1,415,185													
Rose Street Utility Upgrades	330,816	DEFERRED											
Upgrade Utilities in Deacon St Reconstruction	212,775												
North Mesa Distribution Upgrades (Phase I)	871,594	DEFERRED											
WATER PRODUCTION \$9,740,345													
Rose Street Utility Upgrades	322,980	DEFERRED											
Paint Barranca Mesa Water Tank	1,300,000										█████		
Motor Control Center Upgrades	2,727,000											█████	
Pajarito Rd/TA-50 Waterline Replacement	1,210,485											█████	
Bayo Booster Station Tank (Phase II)	2,929,880									█████			
LA Reservoir Rd Stabilization Project (plan/permit)	800,000												
Tank Piping Upgrades (Phase II)	450,000							█████					
WASTEWATER COLLECTION \$2,187,686													
Upgrade Utilities in Deacon St Reconstruction	418,686												
Arkansas Backyard Sewer Renewal/Replacement	269,000										█████		
Ridge Park Sewer Lift Station Elimination	300,000										█████		
Bayo Lift Station Elimination Pipeline	1,200,000										█████		
WASTEWATER TREATMENT \$743,000													
Composting Improvements (Phase II)	743,000											█████	



# FY2023 Capital Improvement Projects



## EL VADO BACKUP GENERATOR DIESEL TANK REPLACEMENT

The existing 1,000 gallon underground diesel storage tank is regulated and inspected by the New Mexico Environment Department. New regulations require that leak detection be installed on the tank piping. The existing tank is an underground tank installed in 1987. Given the age and increasing regulations on underground storage tanks, DPU will replace the tank with a new tank.

Budget: \$85,000  
Schedule: Spring 2023



## EXTEND ABIQUIU'S INTERIOR CONCRETE DECK

A portion of the existing floor within the powerhouse is gravel. This gravel area is aligned with the garage door where the majority of the loading and handling of heavy materials takes place. A new 25' x 55' reinforced concrete slab will be constructed to facilitate the handling of equipment and materials.

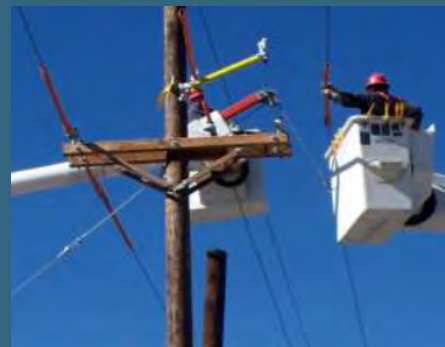
Budget: \$60,000  
Schedule: Spring 2023



## REPLACE UNDERGROUND RESIDENTIAL DISTRIBUTION

The UG system contains 1970s infrastructure that was direct-buried and in direct contact with the earth. Sections of the UG system which have experienced 3+ failures are targeted for replacement as they will fail again. The 3-phase primary feeder on Trinity Drive at Oppenheimer has failed many times. The line failure affects 1600+ customers.

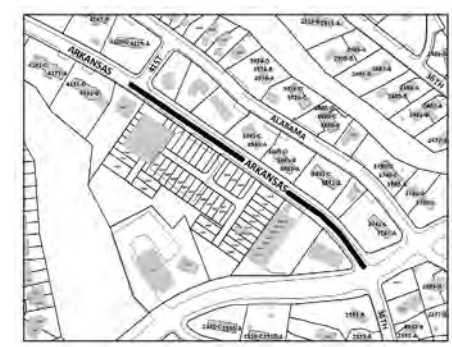
Budget: \$1,350,000  
Schedule: Year-Round



## REPLACE OVERHEAD DISTRIBUTION

Many components of DPU's OH infrastructure operate near or past their useful life—50+ years. DPU's Asset Management Program prioritizes O&M projects by: root cause analysis after power outages, quarterly line patrols and year-end assessments. The O&M program includes replacement of power poles and cross-arms. Townsite areas: Pueblo, Questa and Ridgeway. White Rock areas: Beryl and Aztec.

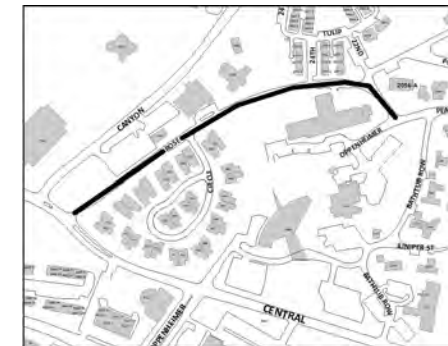
Budget: \$300,000  
Schedule: Year-Round



## ELECTRIC DISTRIBUTION REPLACEMENT ON ARKANSAS AVE

This project will be a joint project between DPU and the Public Works Department to repave the roadway and upgrade portions of the electric distribution system along this segment of the road.

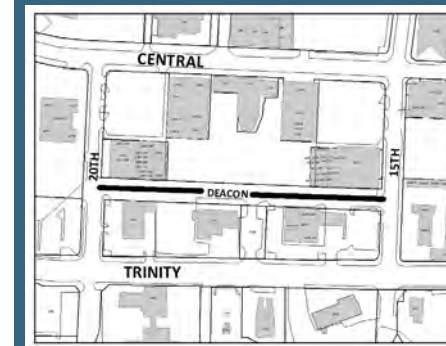
Budget: \$75,000 (profit transfer)  
Schedule: Summer 2023



## ROSE STREET UTILITY UPGRADES (GA, DW, WP)

DPU and Public Works are jointly repaving the roadway and replacing utility infrastructure beneath Rose Street from Central Avenue to Peach Street. Sections of waterlines from the 1950s will be replaced, as well as undersized gas pipelines. DPU's portion of the project will be funded by the profit transfer monies allocated to the DPU by the County Council.

Budget: \$115,376 (GA)  
\$330,816 (DW)  
\$322,980 (WP)  
Schedule: Deferred



## DEACON ST UTILITY UPGRADES (GA, DW, WC)

DPU and Public Works are jointly reconstructing Deacon St and upgrading existing utilities. Aged existing utilities will be replaced and public utilities from adjacent easements will be relocated into the street right-of-way to free up property for development. The work will potentially be funded by LAC's economic development budget.

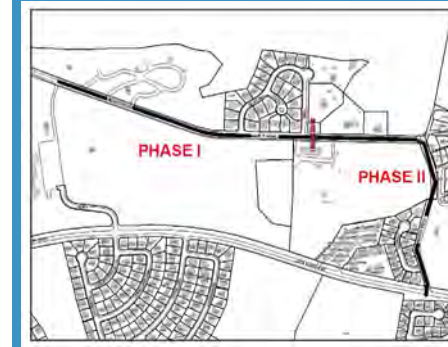
Budget: \$85,000 (GA)  
\$212,775 (DW)  
\$418,686 (WC)  
Schedule: Deferred



## SCADA PRESSURE MONITORING STATIONS

A new Supervisory Controls and Data Acquisition System (SCADA) is currently being launched for the gas distribution system. DPU will install various pressure monitoring stations throughout Los Alamos and White Rock to allow remote monitoring of the system pressures, provide trends of the system performance and provide alarms if there are any pressure drops.

Budget: \$375,000 (FY2023 portion)  
Schedule: Spring 2023



## N MESA DISTRIBUTION UPGRADES (PHASE I)

The waterline in North Mesa Rd is over 65 years old and in poor condition. It will be replaced with a larger line for increased fire protection to North Mesa, more capacity and connections to the proposed new development of 300-400 new homes adjacent to the Middle School and additional capacity and connections to the horse stables. The work will potentially be funded by the County's economic development budget.

Budget: \$871,594  
Schedule: Deferred



## PAINT BARRANCA MESA WATER TANK

The Barranca Mesa Tank #2 is an elevated steel water tank near Barranca School. The deteriorated tank coating needs repainting to protect it for 30 more years. Structural repairs and a new cathodic protection system will be incorporated. LAC allocated \$1,128,660 of American Rescue Plan Act funds to the project. DPU applied for a low-interest Drinking Water State Revolving Loan to fund the remaining balance of the project.

Budget: \$1,128,660 (ARPA)  
\$171,340 (DWSRL)  
Schedule: Summer 2023

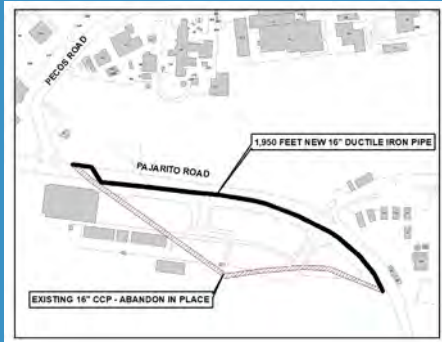


## MOTOR CENTER CONTROL UPGRADES

LAC's water production system has 27 wells and booster stations ranging in age from 25 to 70 years. WP is increasingly seeing failures related to the motor control centers (MCC), electric service feeds and miscellaneous electric components. An RFP to design priority projects based on an already-completed condition assessment was issued and construction will begin in the Summer of 2022.

Budget: \$2,727,000 (DWSRL)  
Schedule: Summer/Fall 2023





### PAJARITO ROAD/TA-50 WATERLINE REPLACEMENT

DOE/NNSA has requested relocation of an existing 16" water transmission line to facilitate construction of planned facilities. The waterline will be relocated from vacant land south of Pajarito Road into the road corridor. The work will be funded by DOE/NNSA.

Budget: \$1,210,485 (DOE/NNSA)  
Schedule: Summer 2023



### BAYO BOOSTER STATION TANK (PHASE II)

In Phase II of the project to construct a new 833,000 gallon non-potable water tank at the Bayo Booster Station, the storage will be expanded from 182,000 gallons to 1,015,000 gallons. This will allow the non-potable system to capture flows normally discharged to the environment and increase the amount of non-potable water that can be conveyed for irrigation.

Budget: \$950,000 (Water Trust Bd)  
\$1,979,880 (CWSRL)  
Schedule: Spring/Summer 2023



### LA RESERVOIR ROAD STABILIZATION

A River Stewardship Program (RSP) grant, sponsored by the New Mexico Environment Department, funds this restoration of the LA Canyon watershed both upstream and downstream of the LA reservoir. Stabilizing the watershed, using bio-engineering techniques, will enable the County to successfully stabilize the road and protect the pipeline & electric conduit between the Ice Rink Road and the reservoir.

Budget: \$300,000 (NMRSF)  
Schedule: FY2023-24



### BAYO LIFT STATION ELIMINATION PIPELINE

The Bayo Lift Station pumps sewage from all of Barranca Mesa to the Los Alamos WWTP. This represents about 20% of the sewage treated at the WWTP. The lift station needs major upgrades and will be replaced by a gravity sewer line rather than repaired, eliminating the cost and risk associated with pumping the sewage.

Budget: \$1,200,000 (CWSRF)  
Schedule: Spring & Summer 2023



### TANK PIPING UPGRADES (PHASE II)

Miscellaneous valves and piping adjacent to existing tanks throughout the water production system require replacement after decades of being in service. The valves will be replaced by WP staff and supported by contractors as needed depending on the complexity of the work. These improvements will add to the reliability of the system.

Budget: \$450,000  
Schedule: Year-Round 2023



### ARKANSAS AREA BACKYARD SEWER RENEWAL & REPLACEMENT

The sewer mains along Arkansas Ave. are located in residents' backyards. The sewers are vitrified clay pipe installed in the 1950s. Due to the location the lines, they are regularly blocked and damaged by roots. They are extremely difficult to access for maintenance and repair. The lines will be assessed, and repairs and replacement of the problem areas will be performed.

Budget: \$269,000  
Schedule: Summer 2023



### RIDGE PARK SEWER LIFT STATION ELIMINATION

The existing Ridge Park lift station is becoming unreliable and requires a major rehabilitation. This project will eliminate the lift station by constructing a new gravity line to route sewage to the existing gravity system in the adjacent Timber Ridge Street.

Budget: \$300,000  
Schedule: Spring 2023



### COMPOSTING IMPROVEMENTS (PHASE II)

The composting facility will be expanded to accommodate additional sludge processed from the new White Rock WRRF. The area is required to have an impervious liner to prevent the migration of contaminants into the groundwater. Also, the compost drainage area must be graded to drain to a detention pond with no offsite discharge. Future phase will include installing a hardened non-wear surface in the processing area.

Budget: \$743,000  
Schedule: Spring 2023



The Overhead Distribution System Replacement Project addresses infrastructure that is more than half a century old and past its useful life. This year-round project targets areas identified in DPU's Asset Management Program.



# Sustainable Los Alamos

## Water & Energy Conservation

Induction cooking is upon us. In July, the Induction Cooktop Loaner Program began providing DPU customers a different cooking experience. To date, nearly 40 households have experimented with the induction cooktops. Nearly 100 names are on the list, which means the wait time is until February/March. Perhaps you saw a toast demonstration on our half-a-pan at the ScienceFest, the County Fair or a Farmer's Market. While there is still plenty of time to decide if you want to participate (sign up at [ladpu.com/cooktop-signup](https://ladpu.com/cooktop-signup)), we are working to expand the avenues by which cooktops will be available so watch for those as well.

PEEC hosted the Electric Vehi-

cle Show and held a solar car race at Discovery Day during ScienceFest. While the clouds moved in right at race time, several hundred people still stopped by during the Electric Vehicle Show.

"This is an awesome program. I would have never really considered induction before trying it. Thank you."

~ Induction Cooktop Loaner Program Participant

We are looking at options to have efficient technologies available for public demonstration and we've completed several facility tours for consideration to install such household items as a full-size induction stove, a heat pump water heater and a

heat pump dryer.

The Water and Energy Conservation Plan was approved by BPU on August 17. The full plan can be found at [ladpu.com/ConsPlan](https://ladpu.com/ConsPlan). Be on the lookout for public input opportunities in the next six months.

Seasonal and relevant inserts are going out with your utility bill. The following have been included: Stay Cool (July); Induction Cooktop Loaner Program (delayed by printer until July); Thermostats (August); Dishwashers (September). Reach out to Abbey if there is a topic you'd like to learn more about. If you don't get a physical bill, check out <https://ladpu.com/inserts> to see all of the valuable information and to sign up to receive inserts by email.



Youngsters get ready to race their solar cars at the Electric Car Show in July.

## Induction Cooktop Loaner Program by the Numbers

# of Q2 followup survey responses

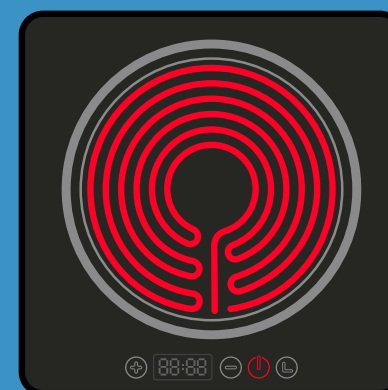
15

# currently cooking with gas

10

# reporting induction cooktop unit cooked better than gas units

6

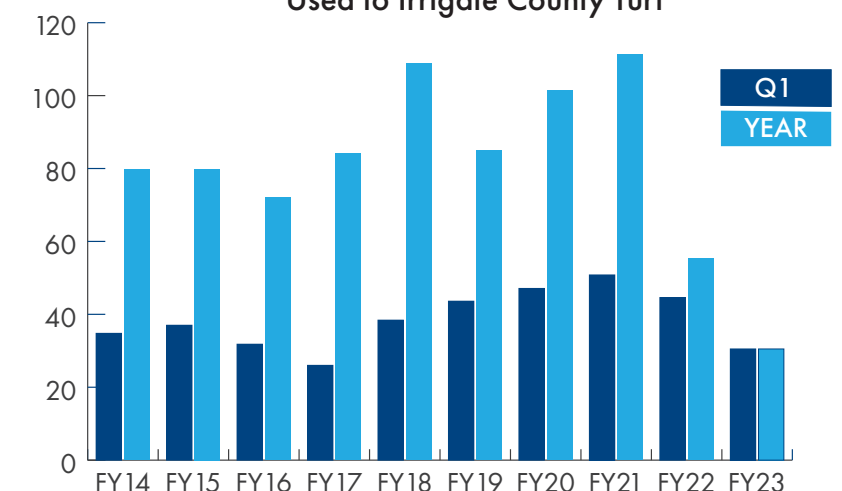


## Reclaimed Wastewater

Reclaimed wastewater use for the first quarter of FY2023 totaled 30.5 million gallons. With an unexpectedly wet summer, less of this water was needed for irrigation than in the first quarter of most fiscal years. FY17 was the only year in the past decade when less reclaimed wastewater was used in Q1.

Quarters 1 and 4 are typically the time of year when the largest quantities of reclaimed wastewater are utilized, coinciding with the peak irrigation seasons of spring and summer. Treated wastewater from the wastewater treatment plants in both Los Alamos and White Rock is a great substitute for ground water to meet the County's demand to irrigate parks, ballfields and the golf course. It is also an integral part of the DPU conservation plan. DPU is in the process of improving the quality of its effluent to a class 1A standard--the highest standard possible--through the installation of a filtration system at the Los Alamos plant and the replacement of the White Rock plant with a new water resource recovery facility. Other capital improvement plan projects, such as this year's Bayo Booster Station Tank project, will expand and increase storage capacity to permit the irrigation of other turf areas in the community.

MGallons of Reclaimed Wastewater Used to Irrigate County Turf





# Natural Gas Rates

## Fluctuations

Natural gas prices are mainly a function of market supply and demand, which causes fluctuations. Multiple factors affect the price of gas, one is weather. Cold temperatures, for example, increase demand for heating, while hot weather increases demand for cooling, which increases natural gas demand by electric power plants.

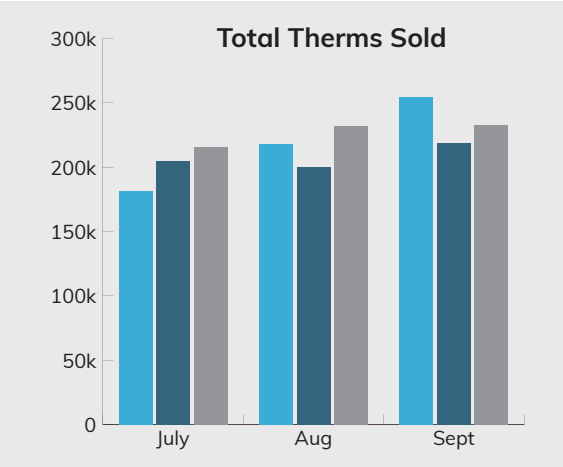
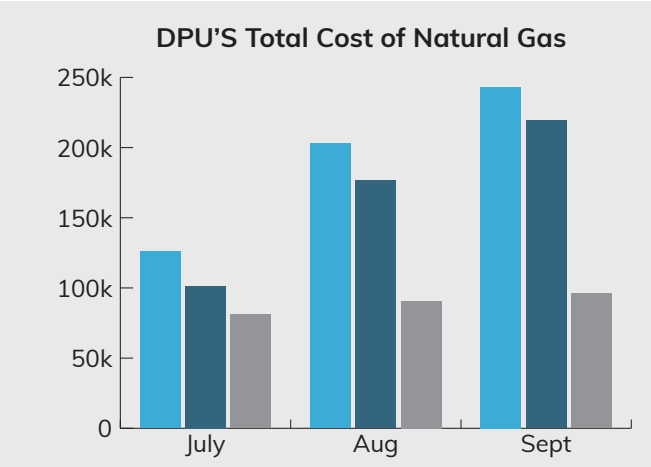
To mitigate some of the fluctuations, DPU joined the New Mexico Municipal Energy Acquisition Authority (NMMEAA). Created by local governments in 2008 through a Joint Powers Agreement, the purpose of NMMEAA is to obtain reliable, long-term gas supply under favorable terms, conditions and price. NMMEAA benefits government-owned utilities like DPU and through this membership, DPU is able to pass its savings directly to customers.

When comparing the variable cost of gas or the pass-through rate with the rates of New Mexico Gas Company, DPU's rates are usually lower although not always. This past quarter (three months) DPU's average cost at \$0.48 per therm was lower than NMGC.

Pass-Through Cost of Gas/Therm				
Mo/Year	Residential		Non-Residential	
	DPU	NMGC*	DPU	NMGC*
Sept 2022	\$0.99	\$1.46	\$0.99	\$1.11
Aug 2022	\$0.99	\$1.51	\$0.99	\$1.15
July 2022	\$0.39	\$1.37	\$0.39	\$1.02
Avg price	\$0.79	\$1.45	\$0.79	\$1.09

\*New Mexico Gas Co. source: nmgco.com/en/cost\_of\_gas

San Juan Index/MMBTU			Total Cost of Gas for Q1			Total Therms Sold for Q1		
2022	2021		2022	2021		2022	2021	
Sept:	\$8.75	\$3.77	Sept:	\$219,259	\$96,139	Sept:	218,731	233,056
Aug:	\$8.48	\$3.90	Aug:	\$176,650	\$90,637	Aug:	200,110	232,094
July:	\$6.15	\$3.48	July:	\$101,286	\$80,945	July:	204,536	215,931
Total:			\$497,195	\$267,721		Total:	623,377	681,081




## Pass-Through Model


Since 2013 the Department of Public Utilities has included a “pass-through” cost of natural gas in its rate. In addition to a monthly service fee, the gas consumption charge comprises a fixed cost recovery fee per therm and a variable cost of gas per therm (pass-through cost). The fixed cost recovery fee includes set distribution maintenance and operation expenses. DPU’s actual cost to purchase the natural gas commodity is passed directly to the customer in the variable cost of gas per therm charge. This price is calculated each month based on the San Juan Index and then adjusted based on the actual cost from the prior month. Customers benefit from this approach as the DPU does not need to maintain a substantial rate stabilization fund to absorb the volatile, fluctuating gas prices. Each month DPU posts the new variable cost of gas rate on the website at: <https://ladpu.com/DPUGas-RateSchedule>.

### TOTAL GAS CHARGE COMPRISES THREE COMPONENTS

(1. Monthly Service Fee) + [(2. Fixed Cost Recovery Fee + 3. Variable Cost of Gas) x Total Therms] = Total Charged



RESIDENTIAL EXAMPLE:  
7A Customer used 30 therms in September 2022  
 $\$9.50 + [(\$0.23 + \$0.99) \times 30] =$   
**\$46.10**



COMMERCIAL EXAMPLE:  
7E Customer used 120 therms in September 2022  
 $\$28.50 + [(\$0.23 + \$0.99) \times 120] =$   
**\$174.90**

SCHEDULE OF CUSTOMERS  
7A: Residential  
7E: Commercial  
7L: County  
7N: Schools

1. MONTHLY SERVICE FEE		
Schedule	Meter Rated	Charge
ALL	≤ 250 CFH	\$ 9.50
ALL	> 250 CFH	\$28.50

2. FIXED COST RECOVER FEE/THERM	
Schedule	Fee/Therm
7A & 7E	\$0.23
7L & 7N	\$0.20

3. VARIABLE COST OF GAS/THERM (Pass-Through Cost of Gas)  
Calculated each month based on the San Juan index and then adjusted based on the actual cost from the prior month

Month & Year	Schedule	Projected Variable Cost of Gas	Adjust Prior Month Estimate	Total Pass-Through Cost of Gas/Therm
July 2022	ALL	\$0.69	(\$0.30)	\$0.39
Aug 2022	ALL	\$0.93	\$0.06	\$0.99
Sept 2022	ALL	\$0.95	\$0.04	\$0.99

# Finance & Administration



**HEATHER GARCIA**  
DEPUTY UTILITY MANAGER

Bachelor of Business Administration  
Master of Business Administration

Memberships:  
Nat'l Public Employer Labor Relations Assn.  
Government Finance Officers Association

### In a nutshell...

#### Finance and Administration Division Overview

The Finance and Admin division has been busy in Quarter 1 with many endeavors to improve communication with customers and the financial well-being of the utility. Rate adjustments were passed in ordinances for the gas, water production and water distribution utilities. In addition to rate changes, staff worked closely with NMED to secure a lower interest rate loan through the Clean Water State Revolving Loan Fund for the White Rock Water Resource Reclamation Facility (WRRF) replacement. This is expected to save the utility between \$6 million and \$8 million dollars over the life of the loan. Staff is currently working to refinance the previous loan for the WRRF at a lower interest rate as well.

Staff has also been working with Tyler Munis to implement the MyCivic 311 functionalities and mobile app. These applications will provide an additional outlet for residents to report issues and receive follow-up on questions or concerns. These applications are anticipated to be available for customers by the end of November. Also completed in quarter 1 of FY2023 were year-end closeout activities and carryover requests for FY2022 budgets to be added to FY2023.

Staff continues to work with customers to meet all winter moratorium requirements. Winter moratorium will start on November 15 and run until March 15 of 2023. The utility assistance program continues to remain healthy due to generous donations from ratepayers. Current balance as of the end of Q1 is \$25,683. More information on our Utility Assistance Program (UAP) can be found on the DPU pages of the county website.

Recently, staff assisted with the County Finance Division on audit reporting for FY2022. The audit will be completed

## OVERALL PERFORMANCE: Q1

### FY2023 Financial Status - Unaudited

		Electric	Gas	Water	Wastewater	Total
OPERATING REVENUES	Utility sales and service	\$16,855,958	\$676,963	\$2,459,498	\$1,491,889	\$21,484,308
	Miscellaneous Revenue	45,588	-	738,887	-	784,475
	<b>Total Operating Revenue</b>	<b>16,901,546</b>	<b>676,963</b>	<b>3,198,385</b>	<b>1,491,889</b>	<b>22,268,783</b>
OPERATING EXPENSES	Employee salaries and benefits	\$1,621,532	\$174,319	\$354,343	\$311,533	\$2,461,727
	Contractual services	14,378,898	755,375	2,032,384	3,070,103	20,236,759
	Materials and supplies	125,256	9,754	72,183	58,008	265,201
	Depreciation and amortization	-	-	-	-	-
	Special closure costs	18,950	-	-	-	18,950
	Other	152,584	4,671	33,218	21,437	211,910
	<b>Net Operating Expenditures</b>	<b>16,297,219</b>	<b>944,120</b>	<b>2,492,128</b>	<b>3,461,081</b>	<b>23,194,547</b>
NET INCOME		\$604,327	\$(267,157)	\$706,257	\$(1,969,191)	\$(925,764)

in quarter 2 of FY2023. Finance and Admin is preparing for the upcoming FY2024 budget cycle, which will begin in December and January, with presentations to BPU in February and March.

#### Overall Budget Performance

Sales in the first quarter for electric, water and wastewater continue to be lower than forecasted sales. This trend has been seen for these utilities for the past few years. However, revenues have been increasing in the first quarter over past years due to increased efforts in collections and clean up of past due

amounts accumulated through the COVID moratorium. Total utility revenues for services for Q1 FY2023 was \$3.1 million over FY2022 and \$3.8 million over FY2021 for the same time period. This is largely in part to sales of wholesale electric and wholesale water to DOE and Kirtland. Sales in these categories were up 30% for Q1 of FY2023. Wholesale sales account for 64% of total sales revenues for the year so far.

Expenditures for the first quarter of FY2023 are up 85% in the electric utility due to increases in purchased power, the shutdown of the San Juan

Generating Station, and the CGTG unit at LANL being in-operable. These expenditures are included in operational expenses, which make up 73% of total expenditures for the quarter. Increases in expenditures in the wastewater fund are due to the construction of the WWTF in White Rock, which started this past spring. Construction expenses make up 21% of total expenditures for the beginning of FY2023. Maintenance expenses make up for 5% of total expenditures. These types of activities are largely affected by the continued delays in supply

# Finance & Administration (continued)

chains and labor shortages.

DPU net revenues for quarter 1 of FY2023 were a total loss of approximately (\$926,000), including all expenses. This is mainly in part to the increase in expenses for the WWTF in the wastewater fund, which saw a loss of (\$1,969,191). This project is financed and was planned in FY2022 budgets and carried over to FY2023 budgets. Electric and water funds experienced a net gain in quarter 1, while gas showed a loss. This is likely due to fluctuations in gas rates that continued through the summer. Due to the structure of the pass-through rate, these impacts take months to recover from but are expected to normalize in the next quarter.

REVENUE BY SOURCE: Q1

SOURCE	Q1 FY23	Q1 FY22	Q1 FY21
Wholesale (DOE)	\$9,305,782	\$8,078,203	\$6,659,521
Wholesale (Other)	4,415,734	\$2,415,038	2,608,095
Residential	5,051,149	\$5,120,245	5,666,607
Commercial	1,738,547	\$1,583,187	1,643,265
Educational Sales	250,932	\$197,816	192,208
Municipal	611,462	\$717,255	552,284
Nonpotable	47,345	\$128,180	133,093
Other	63,357	\$75,738	175,296
TOTAL	\$21,484,308	\$18,315,661	\$17,630,369

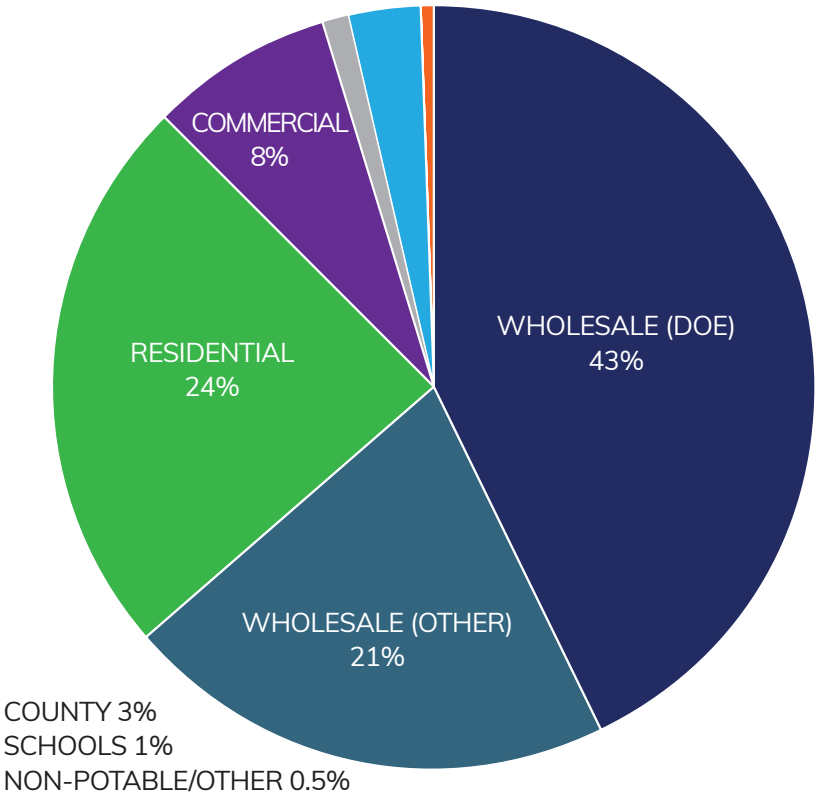
Electric Operations

Retail sales were 12% below the budgeted 32,579,545 kWh and sales to DOE were 17% below the budgeted 136,632,437 kWh. Overall commodity sales for all customers were 16% below forecasted sales.

In electric distribution, the first quarter closed with net operating revenues of just over \$703,000, which is 49% of the total annual budgeted income for FY2023. This can be attributed to lower overall expenses in maintenance and capital activities due to supply chain delays. With 25% of the year passed, 31% of the budget was expended in the first three months. Power costs continue to be higher than in past years, and LAC cost of power for the quarter was \$62.34 per kWh, just below the budget projection of \$65.356. Previous years saw cost of power per

EXPENSE BY TYPE: Q1

	Q1 FY23		Q1 FY22		Q1 FY21	
	Budget	Spent	Budget	Spent	Budget	Spent
Electric	53,173,184	16,297,219	54,834,147	8,770,477	57,880,010	9,957,026
Gas	8,683,302	944,120	8,706,462	890,917	10,129,727	482,477
Water	28,840,518	2,492,128	23,048,335	2,485,297	25,551,212	1,246,356
Wastewater	33,329,603	3,461,081	10,096,107	992,580	22,139,137	685,355
TOTAL	\$124,026,606	\$23,194,547	\$96,685,051	\$13,139,271	\$115,700,086	\$12,371,214



kWh around \$40 to \$50 per kWh. Capital expenditures totaled almost \$99,000, which is only about 15% of the \$650,000 budgeted for FY2023.

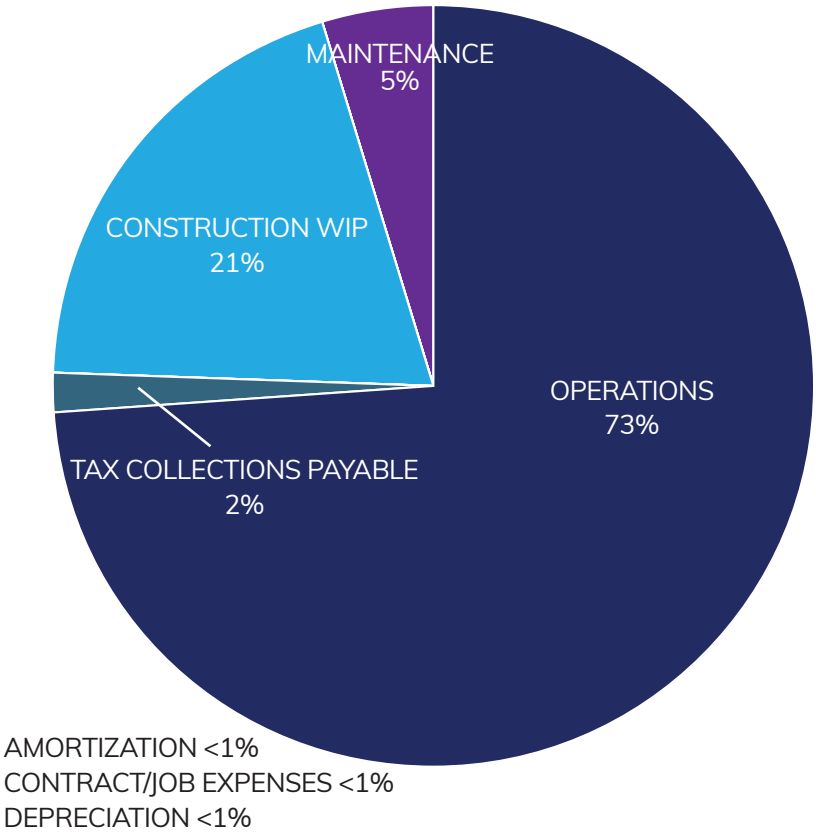
The first quarter of FY2023 yielded a total net income gain of more than \$604,000 for electric distribution. A net income loss of (\$2,616,104) is forecasted for the year, which includes the profit transfer and budget revisions for carryovers from FY2022. As the department moves forward with planned maintenance activities and capital projects, we could see that early net revenue gain dissipate over the year to match budget projections more closely.

Gas Operations

Gas sales in the first quarter were 1.5% higher than budgeted for the period, with total sales of 623,377 therms as compared to the forecasted 614,368 therms. Net cash flow from operations posted a gain of \$5,514, with capital expenditures totaling \$272,672 for Q1.

Cost of purchased gas continues to fluctuate due to market conditions. Prices for natural gas are expected to be high this winter. Lower prices are typical for the first part of the year, but as seen earlier in calendar year 2021 and throughout calendar year 2022, several factors can create fluctuations in the prices of gas. Q1 cost-of-gas expenditures equate to 6% of the total budget for FY2023. It is expected that as demand for gas increases through the winter, costs will increase and be more in line with budgets.

For FY2023, an operating income gain of almost \$76,000 is forecasted for gas operations with a budgeted profit transfer of \$345,845. Capital expenditures are budgeted at \$375,000 for the fiscal year.





# Finance & Administration (continued)

A negative net cash flow of (\$1,778,732) is budgeted, funded from existing fund balance which includes carryovers from FY2022. For the first three months of FY2023, a net revenue loss of (\$267,157) was experienced, or 15% of the total FY2023 forecasted loss.

## Water Operations

At just under 254,000 kgal, retail water sales were lower than Q1 budget estimates of about 276,000, a decrease of 8%. Total retail sales for Q1 were almost 8% more than the first quarter of FY2022 because sales to wholesale customers were up, however, residential consumption was down 25% and education sales were 54% less than FY2022. Wholesale water sales to LANL—95,398 kgal—were 9% less than budgeted, which is an improvement over FY2022 for the same timeframe. Sales in FY2023 for the first quarter were 32% lower than estimated. While it may be premature, it appears that the effects of the COVID Pandemic have subsided some with water consumption and irrigation practices steadily returning to normal. Combined total sales in thousands of gallons for both retail and DOE were 8% lower than budgeted for the quarter.

Net cash flow from water operations was over \$1.5 million for the quarter. Capital projects funded through sales totaling \$1,950,000 were budgeted in the water fund for the year, with almost \$836,000 expended as of September 30, yielding total water net revenues of more than \$706,000 for the quarter. Water Production’s budget includes grant and loan funded projects totaling \$10.4 million, which will only be expended if those funding sources are realized.

For the full fiscal year, water operations’ budgeted operating cash flow is \$806,058 which results in budgeted net negative cash flow of (\$1,143,942), after forecasted capital expenditures, funded through existing fund balance. Budget carryovers from FY2022 exceed \$11.7 million, which are largely funded through grants and loans. Once planned capital projects pick up, early

net revenue gains should return to closer projections for FY2023.

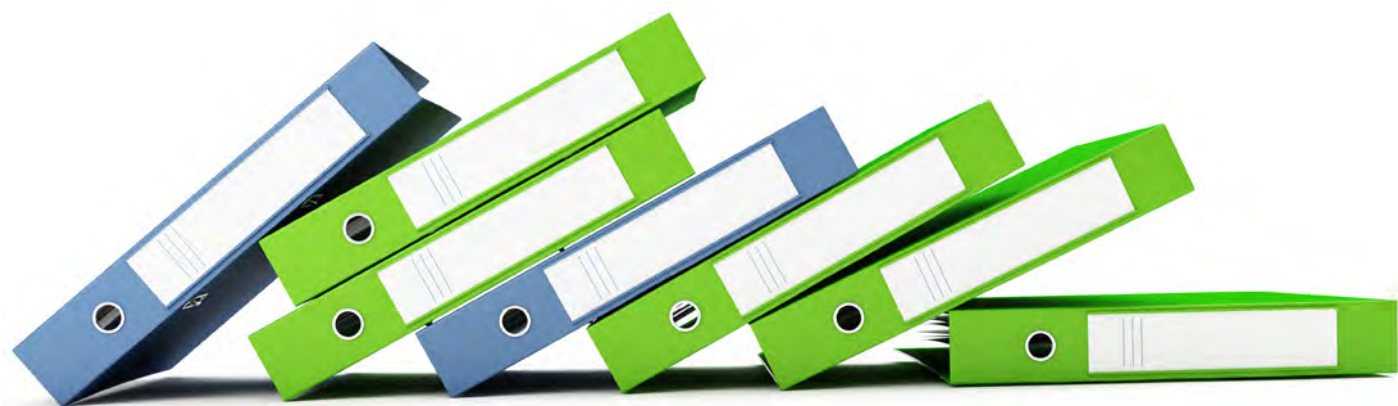
## Wastewater Operations

While total treated wastewater was almost 95,000 kgal, it was still 17% less than forecasted. Cash flow from operations was \$607,000 for the first three months of FY2023. Almost \$2.6 million has been spent on capital expenditures to date this fiscal year, resulting in a net sewer revenue loss of (\$1,969,191). These capital expenditures are for the WRRF construction project in White Rock. Expenditures for FY2023 will continue to increase until the project is completed. The total budget for this project is \$30 million, which was carried over from FY2022.

Total FY2023 wastewater operations’ budgeted operating cash flow is \$1.3 million. In total, more than \$2.2 million in capital expenditures is budgeted, which include \$1.2 million of grant and loan funded projects. This creates a net change to the fund of \$1,043,000, resulting in a projected net income gain of more than \$271,000 for the year. After budget adjustments for carryovers, an anticipated net income loss of (\$29,138,034) is expected and will be funded out of cash reserves.



# Financial Operations



Unaudited quarterly reports may include changes to prior quarters' data.  
Financial data is not final until audited.

## CURRENT DEBT PROFILE: Q1

Net System Revenue of the Joint Utility System

YEAR	Total Senior Debt Service	Total Subordinate Debt Service	Total Super Subordinate Debt Service	Total Debt Service	Total Revenue	Total Debt Service Coverage Ratio
2022	\$1,253,863	\$750,295	\$590,462	\$2,594,619	\$8,860,597	3.41
2023	1,254,372	762,759	608,990	2,626,121	13,862,066	5.28
2024	1,239,579	1,060,891	2,398,768	4,699,238	7,698,950	1.64
2025	1,223,138	969,626	2,398,766	4,591,530	7,839,896	1.71
2026	1,210,048	970,677	2,398,763	4,579,488	7,621,283	1.66
2027	1,189,720	966,261	2,398,762	4,554,742	11,914,137	2.62
2028	1,177,264	969,161	2,395,417	4,541,842	20,071,384	4.42
2029	1,152,072	966,341	2,391,225	4,509,638	14,692,405	3.26
2030	1,129,752	967,981	2,391,224	4,488,957	13,206,694	2.94
2031		963,901	2,381,083	3,344,984	11,588,963	3.46
2032		962,919	2,365,297	3,328,216	8,577,408	2.58
2033		966,166	2,326,433	3,292,599	8,577,408	2.61
2034		963,451	2,326,434	3,289,885	8,577,408	2.61
2035		329,966	2,326,434	2,656,400	8,577,408	3.23
2036		329,966	1,837,291	2,167,256	8,577,408	3.96
2037		329,966	1,827,557	2,157,523	8,577,408	3.98
2038		329,967	1,827,555	2,157,522	8,577,408	3.98
2039		329,966	1,824,783	2,154,748	8,577,408	3.98
2040		329,966	1,824,783	2,154,748	8,577,408	3.98
2041		329,966	1,824,783	2,154,749	8,577,408	3.98
2042		329,966	1,808,310	2,138,275	8,577,408	4.01
2043		329,966	1,789,779	2,119,744	8,577,408	4.05
2044		329,966		329,966	8,577,408	25.99
2045		329,966		329,966	8,577,408	25.99
2046		329,966		329,966	8,577,408	25.99
2047		329,966		329,966	8,577,408	25.99
2048		329,965		329,965	8,577,408	25.99
2049					8,577,408	
TOTAL	\$10,829,808	\$16,859,950	\$44,262,897	\$71,952,655	\$271,749,718	



# Financial Operations (continued)

## ELECTRIC OPERATIONS: Q1

Unaudited Financial Status - FY2023	Q1	Q2	Q3	Q4	YTD
UNIT SALES: KILOWATT HOURS					
Total retail sales	\$28,762,875				\$28,762,875
Budgeted sales	32,579,545				32,579,545
Retail sales variance (KWh)	(3,816,670)				(3,816,670)
Sales to NNSA	114,040,589				114,040,589
Budgeted sales to NNSA	136,632,437				136,632,437
NNSA sales variance (KWh)	(22,591,848)				(22,591,848)
Other Wholesale Sales	1,948,324				1,948,324
Budgeted Other Wholesale Sales	2,516,285				2,516,285
Variance	(567,961)				(567,961)
Total actual KWh sales	142,803,464				142,803,464
Total budgeted sales	169,211,982				169,211,982
Total sales variance (KWh)	(26,408,518)				(26,408,518)
FINANCIAL RESULTS					
Total Electric Distribution Revenues	3,842,440				3,842,440
ED Other Revenues	(123,038)				(123,038)
Electric Production Expenditures	14,522,227				14,522,227
Electric Production Revenues	12,729,146				12,729,146
Net Cost Of Power to ED	1,793,081				1,793,081
Other Elec. Distr. Operating Expense	1,223,063				1,223,063
Total ED Operating Expenses	3,016,144				3,016,144
Net ED Operating Revenue	703,257				703,257
ED Capital Expenditures	98,930				98,930
Net ED Total Revenue	604,327				604,327
BUDGETED					
Budgeted Operating Income(Loss)					1,440,433
Budgeted Capital Expenditures					(650,000)
Profit Transfer					(654,033)
Budgeted Net ED Income(Loss)					136,400
Budget Adjustments*					(2,752,504)
Adj. Budgeted Net ED Income(Loss)					(\$2,616,104)

## NATURAL GAS OPERATIONS: Q1

Unaudited Financial Status - FY2023	Q1	Q2	Q3	Q4	YTD
UNIT SALES: THERMS (100,000 BTU)					
Total sales	\$623,377				\$623,377
Budgeted sales	614,368				614,368
Retail sales variance (therms)	9,008				9,008
FINANCIAL RESULTS					
Gas distribution revenues	748,415				748,415
Gas other revenues	(71,452)				(71,452)
Gas distribution operating expenses	671,449				671,449
Net Gas operating revenues	5,514				5,514
Gas distrib. capital expenditures	272,672				272,672
Net Gas Revenue	(267,157)				(267,157)
BUDGETED					
Budgeted Operating Income(Loss)					75,911
Budgeted Capital Expenditures					(375,000)
Profit Transfer					(345,845)
Budgeted Net Gas Income(Loss)					(644,934)
Budget Adjustments*					(1,133,498)
Adj. Budgeted Net Gas Income(Loss)					(\$1,778,432)

\*This category includes carryforward project amounts, encumbrance rollovers and Board/Council approved budget adjustments.

# Financial Operations (continued)

## WATER OPERATIONS: Q1

Unaudited Financial Status - FY2023	Q1	Q2	Q3	Q4	YTD
UNIT SALES: THOUSAND GALLONS					
Wholesale sales to LANL	\$95,398				\$95,398
Budgeted wholesale sales	105,149				105,149
Retail sales	253,693				253,693
Budgeted retail sales	275,814				275,814
Total sales	349,091				349,091
Total budgeted sales	380,963				380,963
Total Sales Variance	(31,872)				(31,872)
FINANCIAL RESULTS					
Wholesale revenues	1,295,486				1,295,486
Retail revenues	1,902,899				1,902,899
Other revenues	-				-
Total water revenues	3,198,385				3,198,385
Water prod. operating expenses	655,112				655,112
Water dist. operating expenses	1,001,323				1,001,323
Total water operating expenses	1,656,435				1,656,435
Net water operating revenues	1,541,950				1,541,950
Water production capital	815,224				815,224
Water distribution capital	20,470				20,470
Total capital expenditures	835,693				835,693
Net water revenues	706,257				706,257
BUDGETED					
Budgeted Operating Income(Loss)					806,058
Budgeted Capital Expenditures					(10,417,365)
Budgeted Grant/Loan/GF Transfers					8,467,365
Budgeted Net Water Income(Loss)					(1,143,942)
Budget Adjustments*					(11,734,269)
Adj. Budgeted Net Water Income(Loss)					(\$12,878,211)

## WASTEWATER OPERATIONS: Q1

Unaudited Financial Status - FY2023	Q1	Q2	Q3	Q4	YTD
UNIT SALES: THOUSAND GALLONS					
Total treated	\$94,957				\$94,957
Budget treated	114,658				114,658
Variance (thousands of gallons)	(19,701)				(19,701)
FINANCIAL RESULTS					
Sewer revenues	1,581,724				1,581,724
Sewer misc. revenues	(89,835)				(89,835)
Sewer operating expenses	885,060				885,060
Net Sewer operating revenues	606,830				606,830
Sewer capital expenditures	2,576,020				2,576,020
Net Sewer Revenue	(\$1,969,191)				(\$1,969,191)
BUDGETED					
Budgeted Operating Income(Loss)					1,314,234
Budgeted Capital Expenditures					(2,243,000)
Budgeted Grant/Loan/GF Transfers					1,200,000
Budgeted Net Wastewater Income(Loss)					271,234
Budget Adjustments*					(29,409,268)
Adj. Budgeted Net Wastewater Income(Loss)					(\$29,138,034)

\*This category includes carryforward project amounts, encumbrance rollovers and Board/Council approved budget adjustments.

# Electric Consumption

Unaudited Financial Status - FY2023					
	Q1	Q2	Q3	Q4	YTD
REVENUES					
Residential	\$1,835,393				\$1,835,393
Private Area Lights	3,339				3,339
Commercial	1,215,147				1,215,147
Municipal	405,925				405,925
Water Production	140,024				140,024
Educational	165,660				165,660
Pole Rentals	-				-
Misc/Backcharges	76,952				76,952
TOTAL	\$3,842,440				\$3,842,440
SALES (KWh)					
Residential	15,112,440				15,112,440
Private Area Lights	9,354				9,354
Commercial	9,978,121				9,978,121
Municipal	2,602,281				2,602,281
Water Production	1,948,324				1,948,324
Educational	1,060,679				1,060,679
TOTAL	30,711,199				30,711,199
BILLED LOCATIONS (average)					
Residential	7,523				7,523
Commercial	615				615
Municipal	156				156
Educational	50				50
TOTAL	8,345				8,345
REVENUE/KWH (average)					
Residential	\$0.1214				\$0.1214
Private Area Lights	\$0.3570				\$0.3570
Commercial	\$0.1218				\$0.1218
Municipal	\$0.1560				\$0.1560
Water Production	\$0.0719				\$0.0719
Eductational	\$0.1562				\$0.1562
AVERAGE	\$0.1226				\$0.1226
LOSS CALCULATION					
Power Recv'd, KWh	29,638,585				29,638,585
PV Power Rec'd, KWh	-				-
Qtrly Losses <gains., KWh	(1,072,614)				(1,072,614)
% Qtrly Losses <gains>	-3.62%				-3.62%
CUMULATIVE LOSSES <gains>	-3.62%				-3.62%

# Natural Gas Consumption

Unaudited Financial Status - FY2023					
	Q1	Q2	Q3	Q4	YTD
REVENUES					
Residential	\$476,252				\$476,252
Commercial	159,768				159,768
TA-3 Sales	-				-
Municipal	13,925				13,925
Water Production	71,452				71,452
Educational	7,556				7,556
Misc/Backcharges	19,462				19,462
TOTAL	\$748,415				\$748,415
SALES (Therms)					
Residential	370,802				370,802
Commercial	142,105				142,105
TA-3 Sales	-				-
Municipal	15,271				15,271
Water Production	88,402				88,402
Educational	6,797				6,797
TOTAL	623,377				623,377
BILLED LOCATIONS (average)					
Residential	6,886				6,886
Commercial	361				361
Municipal	43				43
Educational	20				20
TOTAL	7,310				7,310
REVENUE/THERM (average)					
Residential	\$1.2844				\$1.2844
Commercial	\$1.1243				\$1.1243
TA-3	-				-
Municipal	\$0.9119				\$0.9119
Water Production	\$0.8083				\$0.8083
Educational	\$1.1117				\$1.1117
AVERAGE	\$1.1694				\$1.1694
LOSS CALCULATION					
Gas Recv'd, therms	648,100				648,100
Qtrly Losses <gains>, therms	24,723				24,723
% Qtrly Losses <gains>	3.81%				3.81%
CUMULATIVE LOSSES <gains>	3.81%				3.81%

# Water Consumption

Unaudited Financial Status - FY2023					
	Q1	Q2	Q3	Q4	YTD
REVENUES					
Residential	\$1,430,086				\$1,430,086
Commercial	181,159				181,159
Municipal	191,612				191,612
Educational	77,716				77,716
Misc/Backcharges	22,324				22,324
TOTAL	\$1,902,899				\$1,902,899
SALES, KGAL					
Residential	186,351				186,351
Commercial	25,790				25,790
Municipal	30,003				30,003
Educational	11,549				11,549
TOTAL	253,693				253,693
BILLED LOCATIONS (AVERAGE)					
Residential	6,408				6,408
Commercial	283				283
Municipal	84				84
Educational	22				22
TOTAL	6,797				6,797
REVENUE PER KGAL (AVERAGE)					
Residential	\$7.6742				\$7.6742
Commercial	\$7.0244				\$7.0244
Municipal	\$6.3865				\$6.3865
Educational	\$6.7293				\$6.7293
AVERAGE	\$7.4128				\$7.4128
LOSS CALCULATION					
Water Recv'd, Kgal	264,731				264,731
Qtrly Losses, Kgal	11,038				11,038
% Qtrly Losses	4.17%				4.17%
CUMULATIVE LOSSES <gains>	4.17%				4.17%

# Wastewater Consumption

Unaudited Financial Status - FY2023					
	Q1	Q2	Q3	Q4	YTD
REVENUES					
All Retail	\$1,491,889				\$1,491,889
Municipal/Effluent**	89,835				89,835
Misc/Backcharges	-				-
TOTAL	\$1,581,724				\$1,581,724
SEWER TREATED, KGAL					
Los Alamos	67,883				67,883
White Rock	27,074				27,074
TOTAL TREATED	94,957				94,957
REVENUE PER KGAL TREATED					
	\$16.66				\$16.66

\*\* Effluent revenue is reported on the financial statements under Water Production

# Abbreviations Used in DPU Reports

ACFR	Annual Comprehensive Financial Report
AMI	Automated Metering Infrastructure
APPA	American Public Power Association
ATC	Around the Clock
BGAL	Billions of Gallons
BPU	Board of Public Utilities
CFPP	Carbon Free Power Project
CGTG	Combustion Gas Turbine Generator
COLA	Combined Operating License Application
DG	Distributed Generation
DOE	Department of Energy
DOT	Department of Transportation
DPU	Department of Public Utilities
DW	Water Distribution
ECA	Electric Coordination Agreement
ECT	Economic Competitive Test
ED	Electric Distribution
EIA	Energy Information Administration
EP	Electric Production
EV	Electric Vehicle
FERC	Federal Energy Regulatory Commission
FER	Future Energy Resources Committee
FY	Fiscal Year
GA	Gas Distribution
GPCD	Gallons Per Capita Daily
GWS	Gas, Water, & Sewer Division*
IA	Interagency Agreement
KGAL	Thousands of Gallons
KWH	Kilowatt Hours
LAC	Los Alamos County
LAFD	Los Alamos Fire Department
LANL	Los Alamos National Laboratory
LAPP	Los Alamos Power Pool

LARES	Los Alamos Resiliency, Energy & Sustainability Task Force
LCOE	Levelized Cost of Energy
MCC	Motor Control Center
MGAL	Millions of Gallons
MWH	Megawatt Hours
NEDA	Next Exit Date Amendment
NMGC	New Mexico Gas Company
NMMEA	New Mexico Municipal Energy Acquisition Authority
NNSA	National Nuclear Security Administration
NP	Non-Potable
NPV	Net Present Value
O&M	Operations & Maintenance
OW	Otowi Well
PEEC	Pajarito Environmental Education Center
PHMSA	Pipeline & Hazardous Materials Safety Admin
PPA	Power Purchase Agreement
PV	Photovoltaic
RFP	Request for Proposals
SCADA	Supervisory Control and Data Acquisition
SCBA	Self-Contained Breathing Apparatus
SLS	Sewer Lift Station
UAP	Utility Assistance Program
UAMPS	Utah Associated Municipal Power Systems
UM	Utility Manager
USBR	United States Bureau of Reclamation
USFS	United States Forest Service
WAPA	Western Area Power Administration
WC	Wastewater Collection
WP	Water Production
WRRF	Water Resource Reclamation Facility
WT	Wastewater Treatment
WWTP	Wastewater Treatment Plant

\*Sewer = Wastewater Collection



# FY2023 Q1 REPORT

JUL1 thru SEP30 / 2022

1000 Central Ave. Suite 130  
Los Alamos, NM 87544  
CustomerCare@lacnm.us

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Los Alamos County City Feed



# County of Los Alamos

## Staff Report

December 07, 2022

Los Alamos, NM 87544  
www.losalamosnm.us

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**Agenda No.:** 8.C.  
**Index (Council Goals):**  
**Presenters:** Philo Shelton, Utilities Manager  
**Legislative File:** 16043-22

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### 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 - ***November data was not available by the December 2nd agenda publication deadline. Ms. Gentry will provide November and December Accounts Receivable Reports for the January 18, 2023 meeting.***

C - Safety Report - ***November OSHA data was not available by the December 2nd agenda publication deadline. Mr.. Klepeis will provide November and December OSHA Reports for the January 18, 2023 meeting.***

**Los Alamos County**  
**Department of Public Utilities**

Electric Distribution  
Reliability

December 7, 2022

Stephen Marez

Deputy Utility Manager  
Electric Distribution (Acting)

Twelve Month History	November 2022	
Total # Accounts	9045	
Total # Interruptions	45	
Sum Customer Interruption Durations	33181:52:00	hours:min
# Customers Interrupted	19963	
SAIFI (APPA AVG. = 1.0)	2.21	int./cust.
SAIDI (APPA AVG. = 1:00)	3:40	hours:min
CAIDI	1.39	hours:min/INT
ASAI	99.9983%	% available

- **SAIFI - System Average Interruption Frequency Index**  
A measure of interruptions per customer (Per Year)

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

- **SAIDI – System Average Interruption Duration Index**  
A measure of outage time per customer if all customers were out at the same time (hours per year)

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

- **CAIDI – Customer Average Interruption Duration Index**  
A measure of the average outage duration per customer (hours per interruption)

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

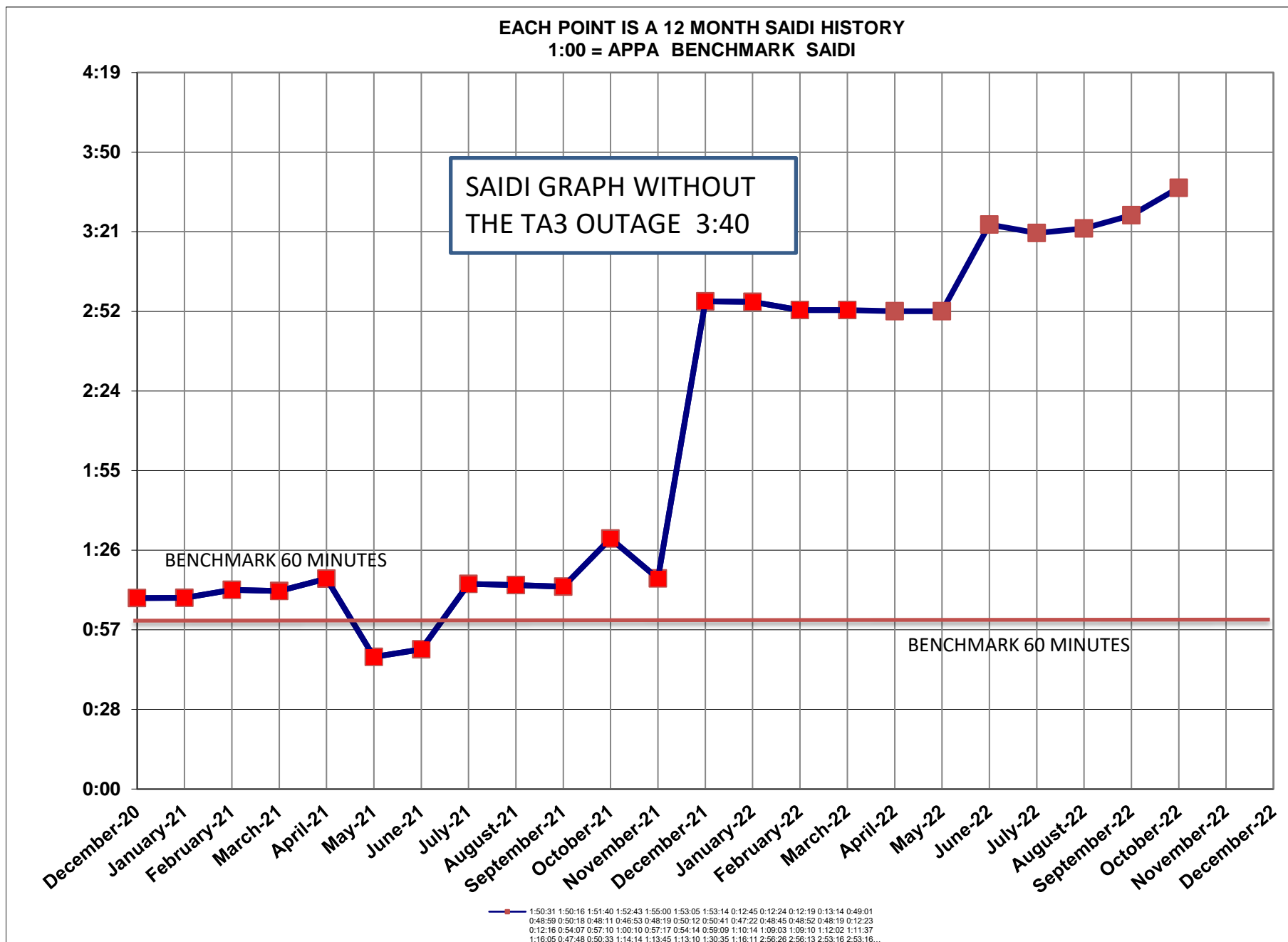
- **ASAI – Average System Availability Index**  
A measure of the average service availability (Per unit)

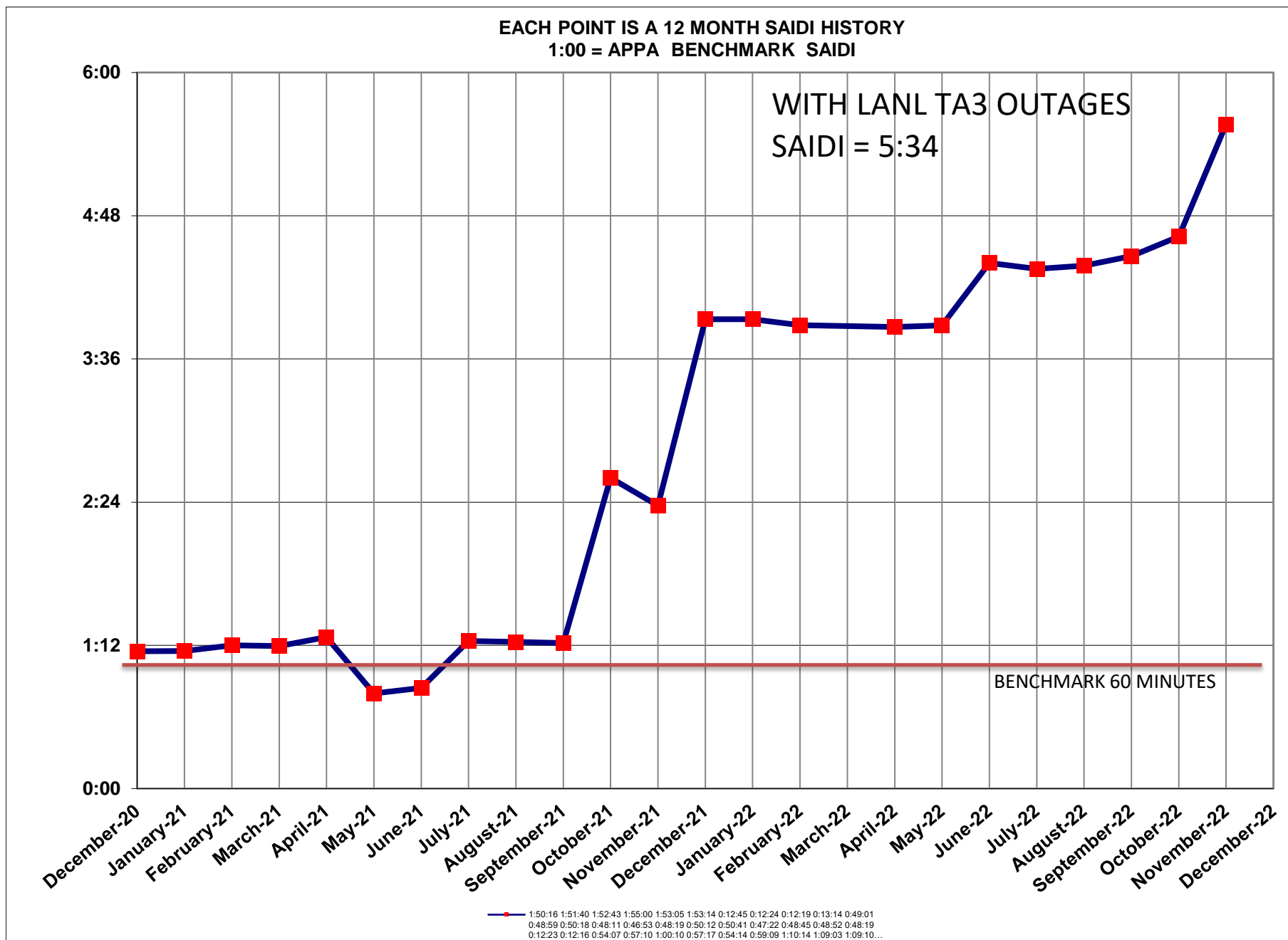
$$\text{ASAI} = \frac{(\text{Service hours available})}{(\text{Customer demand hours})} = \frac{8760 - \text{SAIDI}}{8760}$$



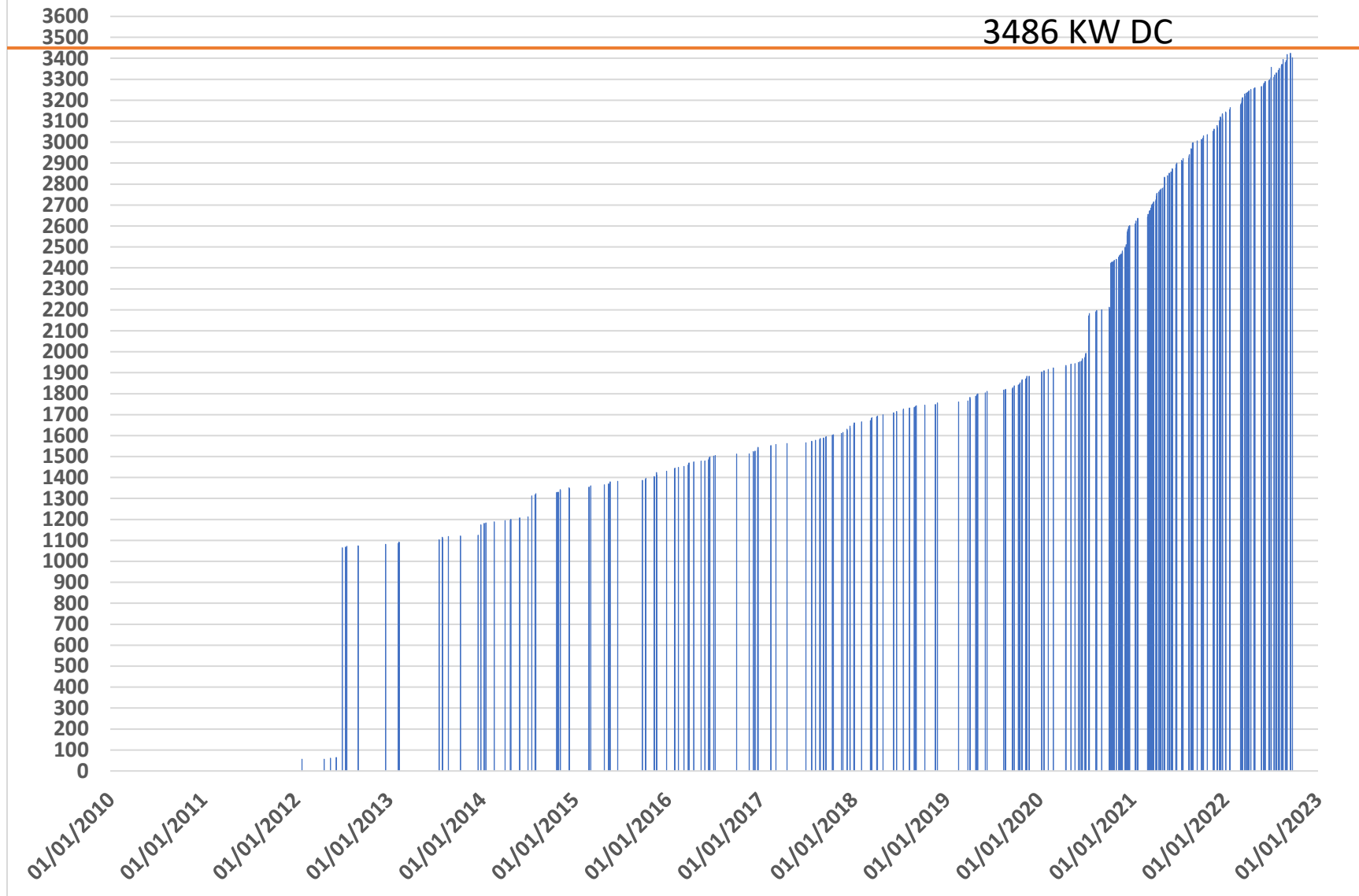


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# CONNECTED DISTRIBUTED GENERATION SOLAR - KW



# **STATUS REPORTS**

## **ACCOUNTS RECEIVABLES**

PREPARED BY

Joann Gentry  
Senior Management Analyst



# STATUS REPORTS

## Risk & Safety

PREPARED BY

Steve Klepeis  
Risk Manager

*November OSHA data was not available by the December 2nd agenda publication deadline. Mr. Klepeis will provide November and December OSHA Reports for the January 18, 2023 meeting.*

DEPARTMENT OF PUBLIC UTILITIES CLAIMS					
Information Provided by the County Risk Manager					
YEAR	REPORT MONTH	BPU MTG DATE	TORT CLAIMS	WORKERS COMP	PROPERTY DAMAGE
2022	NOV	12/7/2022	NONE	NONE	NONE
2022	OCT	11/16/2022	LA Public Schools made claim for two burned out motors which they attribute to a power outage.	NONE	NONE
2022	SEP	10/19/2022	NONE	NONE	NONE
2022	AUG	9/21/2022	NONE	NONE	NONE
2022	JUL	8/17/2022	NONE	NONE	An EP employee experienced a stone chipping to his windshield while operating his assigned vehicle. No recovery.
2022	JUN	7/20/2022	NONE	1. A GWS employee fell while securing a Vactor boom; strained leg; lost 6 days then back to full duty. 2. A WP employee working on trailer strained his knee; examined and released to full duty.	NONE
2022	MAY	6/15/2022	Claimant experienced sewer water damage to basement and contents due to a County main back-up. Claimant called ServePro initially, and insurance has approved continuing mitigation and restoration services.	An Electrical Distribution employee caught and fractured two fingers in a cable reel. The employee was treated and released to work with restriction. Employee will require follow-up treatment.	NONE
2022	APR	5/18/2022	NONE	NONE	NONE
2022	MAR	4/20/2022	NONE	NONE	1. WP employee accidentally broke window of truck. 2. GWS Backhoe front bucket apparatus came loose, damaged hood of machine.
2022	FEB	3/16/2022	Claimant alleges property damage due to water line leak. Minor.	NONE	NONE
2022	JAN	2/16/2022	There were no Utilities related tort claims filed with regard to any January incidents.	An Electrical Distribution employee slipped and fell on parking lot ice; currently working with restrictions.	A GWS employee backing into space lost control of his personal vehicle, struck NE corner of Bldg. 5, causing significant damage. Employee provided insurance information. Risk will recover damages for the County.
2021	DEC	1/19/2022	NONE	NONE	NONE
2021	NOV	12/15/2021	NONE	NONE	NONE
2021	OCT	11/17/21	Claimant alleges furnace dame as result of replacement of gas meter.	NONE	NONE
2021	SEP	10/20/21	1. Claimant states damage to various fixtures in building new filtration system was installed 2. Claimant states gas leak to regulator caused damage to GLR-04	NONE	NONE
2021	AUG	09/15/21	NONE	NONE	NONE
2021	JUL	08/18/21	NONE	NONE	NONE
2021	JUN	07/21/21	NONE	NONE	NONE
2021	MAY	06/16/21	NONE	NONE	NONE
2021	APR	05/19/21	NONE	NONE	NONE
2021	MAR	04/21/21	NONE	NONE	NONE
2021	FEB	03/17/21	1. GWS employee backed into parked unoccupied motorist's vehicle. 2. GWS snowplow slid into motorist under icy conditions.	An ED employee slipped and fell on ice; injured right wrist/hand; able to return to work with no lost days.	A GWS employee backed into a shed at the Aquatic Center. GWS is repairing damage.
2021	JAN	02/24/21	NONE	NONE	1. A GWS employee misjudged backing clearance and backed vehicle 1113 into 1202, with minor damage. 2. A Utilities EP Hydro employee misjudged backing clearance and backed vehicle 1242 into a parked snow plow, resulting only in a small hole in 1242 tailgate. Winter weather conditions.
2020	DEC	01/20/21	On DP Road, GWS driver making turn misjudged clearance and struck a support leg of a flagging machine owned by Southwest Safety; \$3800+- damage claimed.	NONE	NONE
2020	NOV	12/16/20	Claimant alleges that lightning struck a County utility pole causing a voltage surge that damaged his computer. Recommended for denial.	NONE	Claim in which a Utilities employee reported that the toolbox slid in the truck he was driving, and it broke the truck's rear window.
2020	OCT	11/18/20	Claim involving Electrical Distribution: a claimant alleges that home appliances were damaged due to a failure of their neutral conductor, causing voltage overload in part of their electrical panel. ED has responded that the County has no way of knowing or predicting that a house service conductor will fail. Claim has been recommended for denial.	NONE	NONE
2020	SEP	10/21/20	NONE	A lineman fractured/lacerated his right middle finger when removing a heavy manhole cover; returned to duty same day.	NONE
2020	AUG	09/16/20	Resident and her insurer claim sewer back-up damage due to County main problem	GWS worker using high pressure wand; wand slipped, causing contact and skin abrasion to wrist.	NONE
2020	JUL	08/19/20	Water main repair caused debris to enter residence plumbing, clogging house facilities; plumber's bill claimed.	NONE	Break-in reported at El Vado. Damage and theft of federally owned property being stored on premises; no damage or theft to County.
2020	JUN	07/15/20	A claimant experienced water damage to his residence due to a County water line leak.	Lineman lacerated his hand using a knife to splice cable (6/8/2020)	NONE
2020	MAY	06/17/20	NONE	NONE	NONE
2020	APR	05/20/20	NONE	NONE	NONE
2020	MAR	04/15/20	NONE	NONE	NONE
2020	FEB	03/18/20	NONE	NONE	NONE
2020	JAN	02/19/20	Resident incurred plumber bill; didn't know outage was due to main break.	NONE	NONE