QUARTERLY PERFORMANCE REPORT: Qtr 4-FY 2021

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

FISCAL YEAR 2021:
Jul 01, 2020 - Jun 30, 2021

QUARTER 4:
Apr 01 - Jun 30, 2021
(Issued September 2021)

Administrative offices :
1000 Central Avenue, Suite 130
Los Alamos, NM 87544

T. 505 662 6333
CustomerCare@lacnm.us
https://ladpu.com/utilities


ELECTRIC

TABLE OF CONTENTS

PHILO SHELTON
UTILITIES MANAGER

San Juan Generating Station
The above photo is an aerial view of the San Juan Generating Station, a coal-fired plant in the Farmington area. On June 30, 2020 Los Alamos County's ownership agreement for 36 megawatts from Unit 4 will expire. DPU will replace this power with clean energy resources.

A WORD FROM THE UTILITIES MANAGER

While many COVID-19 restrictions were lifted and construction projects were allowed to proceed, the Department of Public Utilities experienced elevated bids on the last five projects this quarter. Increased bid costs are caused by limited materials, and equipment: and restoring the labor pool. In response to these elevated bid prices, the Department has been able to refinance loans at a one percent interest rate.

Also, the Department will seek some relief from Los Alamos County's allocation of funds from the American Rescue Plan Act of 2021. These supply chain and labor issues will most likely persist for some time, especially since the Delta variant of COVID-19 is taking a stronger hold on the globe. To maintain essential utility services, the Department continues to modify its operations.

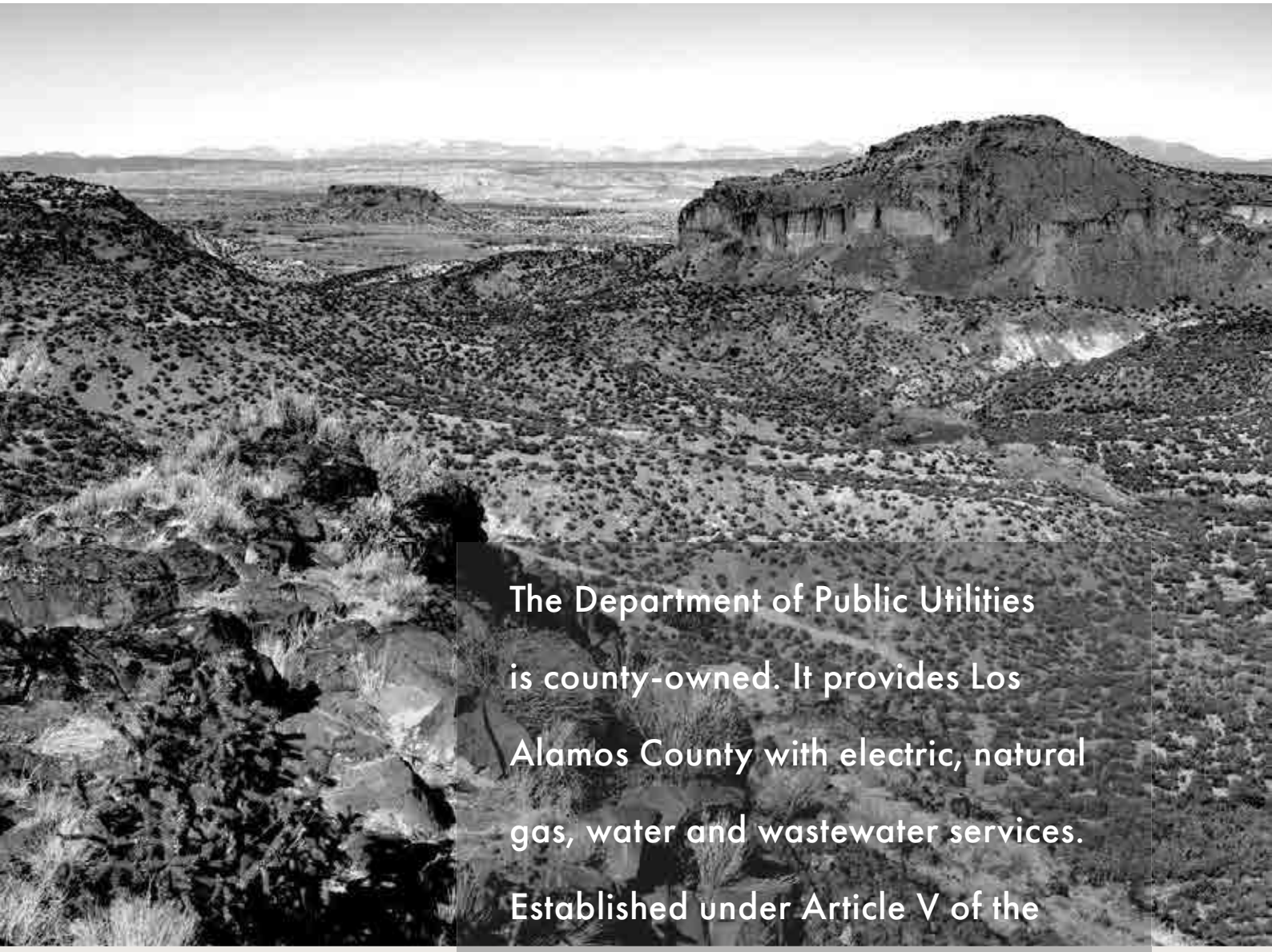
With the closing of the fourth quarter, it marks the last year of the Department's ownership agreement in the San Juan Generating Station's (SJGS's) operation. This coal fired electric production plant has reached the end of its useful life and will close on June 30, 2022.

Staff has plenty of work with agreements in anticipation of its closure. These include the mine closure, decommissioning of the plant, and consideration of a proposal for some owners, absent the County, to continue its operation as a carbon sequestration plant with City of Farmington and Enchant Energy. To date, the Department is replacing a portion of the energy generated by SJGS with a Power Purchase Agreement with Uniper for 15 megawatts of energy that is 78 percent renewable energy. Additionally, DPU is working on an update to its Integrated Resource Plan (IRP) that will inform the County on how much additional power should be purchased through either more Power Purchase Agreements or build new electric generating assets. Going forward, this IRP will best inform the County on the level of participation in the Carbon Free Power Project (CFPP), a proposed nuclear generating facility to be built in Idaho utilizing small modular reactors. The County's current subscription in the CFPP is approximately two megawatts.

This quarter the Department was able to recover all its costs related to the escalated prices for natural gas. A February winter storm greatly impacted Texas and as a result affected our regional commodity prices for natural gas. While four to six months was the original estimated time to recoup these funds, the formula in the natural gas rate ordinance proved to be effective and the Department recovered these additional costs in just a two-month period.

This quarter and finishing up in the next quarter, installation of electric smart meters and, water and gas communication modules for the Advance Metering Infrastructure (AMI) project will be completed. DPU staff is beginning to enjoy the fruits of this project, reading meters remotely, facilitating billing systems, and utilizing outage management maps to identify power outages. AMI work in the second quarter of 2022 will role out more customer-based applications like monitoring one's consumption of gas, water and electric.

In conclusion, next quarter DPU looks forward to strategic planning with the Board of Public Utilities and developing action plans for the next fiscal year as we continue our mission to "provide safe and reliable utility services in an economically sustainable fashion."



The Department of Public Utilities is county-owned. It provides Los Alamos County with electric, natural gas, water and wastewater services. Established under Article V of the 1968 Charter for the Incorporated County of Los Alamos, the DPU falls under the jurisdiction of the Board of Public Utilities.

ABOUT THE DEPARTMENT OF PUBLIC UTILITIES

Mission

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

Vision

Be a high-performing utility matched to our community, contributing to its future with diversified and innovative utility solutions.

We Value

- Customers by being service-oriented and fiscally responsible;
- Employees and partnerships by being a safe, ethical and professional organization that encourages continuous learning;
- Environment and natural resources through innovative solutions; and
- Community by being communicative, organized and transparent.

Revised and adopted: 2020
for fiscal year 2022

Goals/Objectives

1.0 Provide safe & reliable utility services

- Efficiently deliver safe and reliable electric, gas, water & wastewater services;
- Efficiently implement and maintain secure and reliable business systems;
- Ensure utility control and mapping systems and processes are accurate, safe and secure;
- Develop a culture of continuous improvement.

2.0 Achieve & maintain excellence in financial performance

- Utilize revenues to provide a high-level of service and keep rates competitive with similar utility providers;
- Conduct cost of service studies for each utility at least every five years;
- Meet financial plan targets by 2025, and water by 2028;
- Achieve work plans while operating within budget.

3.0 Be a customer service-oriented organization that is communicative, efficient & transparent

- Ensure customer service processes and systems are efficient, secure and user-friendly;
- Engage and inform stakeholders on utilities' operations affecting the community.
- Conduct a community survey of the conservation (environmental) objectives.

Goals/Objectives

4.0 Sustain a capable satisfied, engaged, ethical & safe workforce focused on customer service

- Invest in employee training and professional development;
- Promote a culture of safe,ethical and customer-focused behavior;
- Engage employees, improve employee satisfaction and compensate fairly.

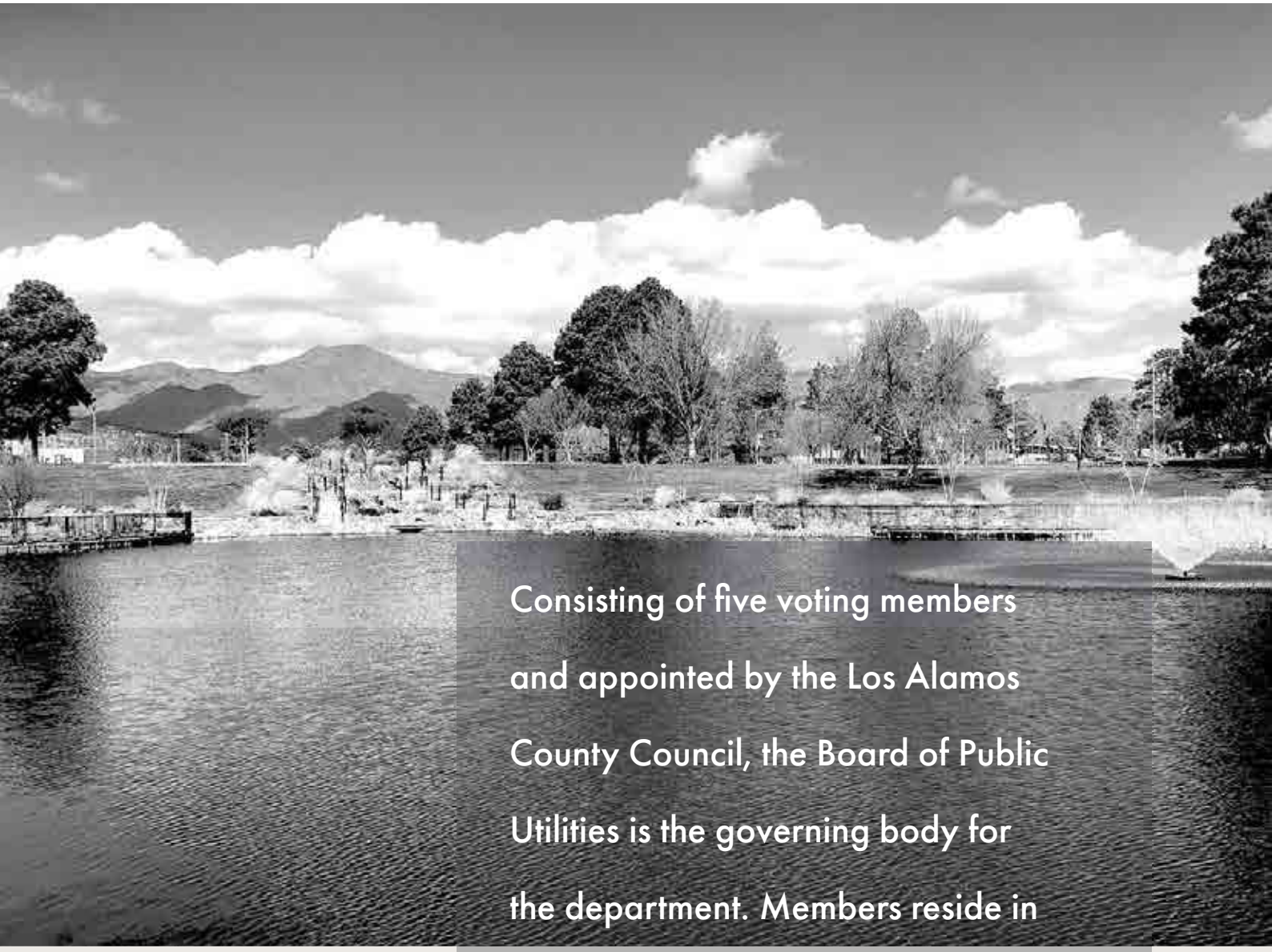
5.0 Achieve environmental sustainability

- Be a carbon neutral electric provider by 2040;
- Promote electric efficiency through targeted electrical conservation programs. Increase local solar peak production to 6 MW by 2040 (this is 30% of local solar produced based on the county peak load of 18 MW);
- Reduce potable water use by 12% per capita per day by 2030 using a 2020 calendar year-end baseline;
- Reduce natural gas use by 5% per capita per heating degree day by using a 2020 calendar year-end baseline and support elimination of natural gas usage by 2070;
- Provide class 1A effluent water in Los Alamos County.

6.0 Develop and strengthen partnerships with stakeholders

- Communicate with stakeholders to strengthen existing partnerships and identify new potentially beneficial partnering opportunities.

Revised and adopted: 2020
for fiscal year 2022



Consisting of five voting members and appointed by the Los Alamos County Council, the Board of Public Utilities is the governing body for the department. Members reside in Los Alamos and are customers of the department. Calendars, policies and procedures, agendas, minutes, and videos of meetings are available at https://ladpu.com/BPU.

BOARD OF PUBLIC UTILITIES

.1/

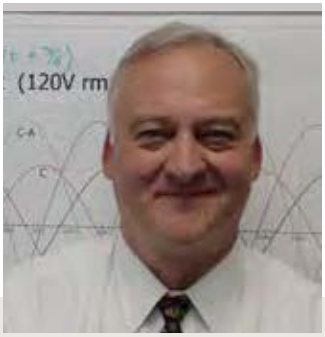
CORNELL WRIGHT
Chair

.2/

STEPHEN MCLIN
Vice Chair

.3/

ERIC STROMBERG
Member



.4/

STEVE TOBIN
Member

.5/

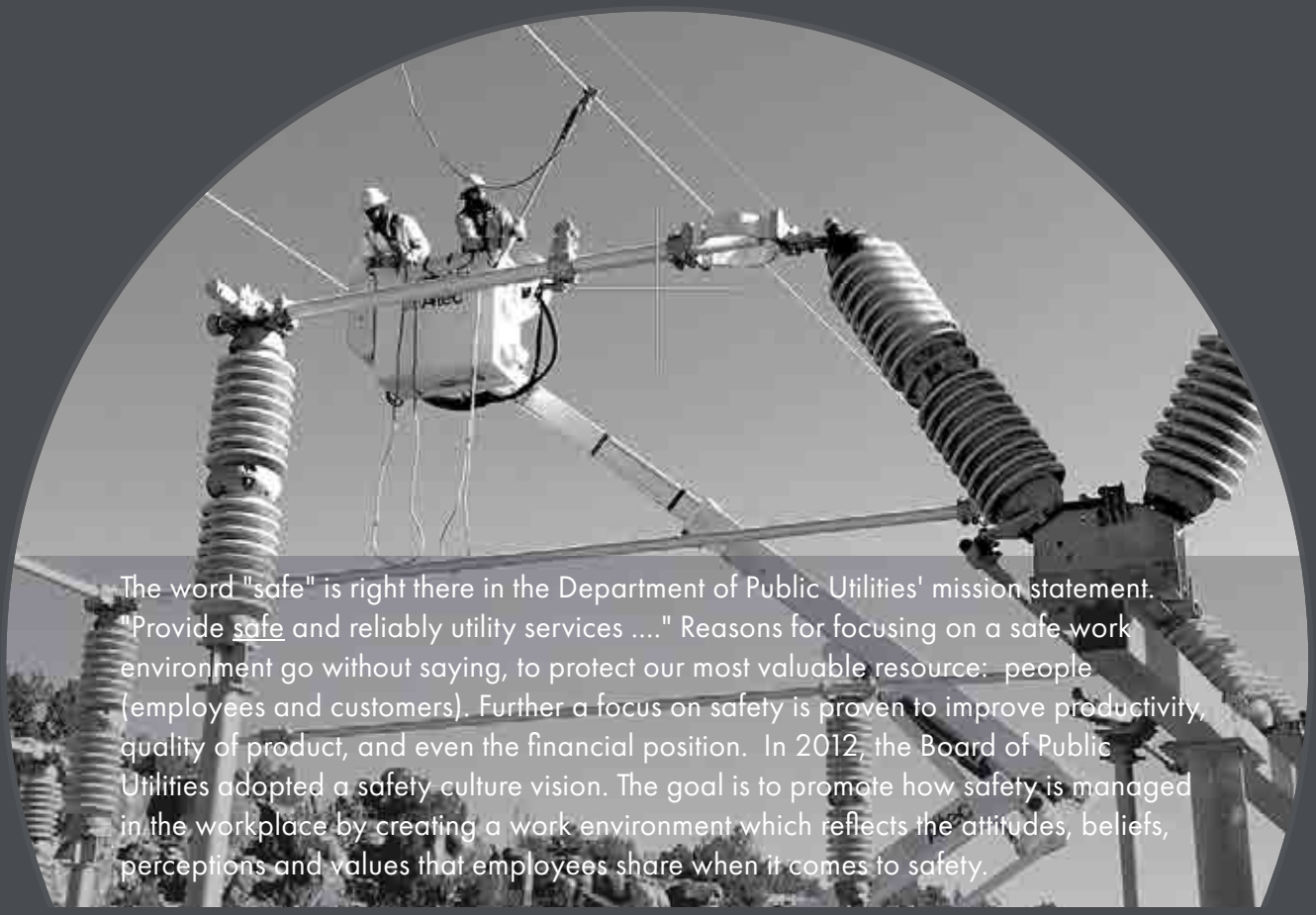
CARRIE WALKER
Member

Meetings

BOARD OF PUBLIC UTILITIES

The Board meets on the third Wednesday of each month at 5:30 p.m. in Council Chambers,1000 Central,Los Alamos, NM. During the COVID pandemic, however, meetings are held via the ZOOM platform. Watch the meetings streamed online at: ladpu.com/BPUliveproceedings

SAFETY



The word "safe" is right there in the Department of Public Utilities' mission statement. "Provide safe and reliably utility services ...." Reasons for focusing on a safe work environment go without saying, to protect our most valuable resource: people (employees and customers). Further a focus on safety is proven to improve productivity, quality of product, and even the financial position. In 2012, the Board of Public Utilities adopted a safety culture vision. The goal is to promote how safety is managed in the workplace by creating a work environment which reflects the attitudes, beliefs, perceptions and values that employees share when it comes to 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 employees want to and not because employees have to. To create this safety culture, DPU employees believe in:

- Putting safety first
- Leading by example
- Establishing and enforcing a high standard of work performance
- Briefing or tailgating before every job
- Making work and safety suggestions.

Adopted 2012

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 discussing the accident, incident or near miss with the rest of the staff at the next available weekly group meeting and share 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.

Each quarter all DPU employees nominate fellow employees who exemplify the safety culture vision. A review of the nominee applications is conducted and voted on by the safety committee members and forwarded to DPU's senior management team for concurrence. The selected employee is recognized and earns an additional day of administrative leave.

SAFETY EMPLOYEE OF THE QUARTER

qtr4/fy21

JUSTIN LUJAN
Senior Pipe Fitter
Gas, Water & Sewer Division

qtr3/fy21

DAVID RODRIGUEZ
Senior Pipe Fitter
Gas, Water & Sewer Division

qtr2/fy21

JULIE WILLIAMS-HILL
Public Relations Manager
Administration

qtr1/fy21

TIMOTEO MARTINEZ
Electric Linemen
Electric Distribution Division

qtr4/fy20

WAYNE VALDEZ
Electric Linemen
Electric Distribution Division

qtr3/ y20

HEATHER GARCIA
Business Operations Manager
Finance and Administration

SAFETY EMPLOYEE OF QUARTER 4, FISCAL YEAR 2021: Justin Lujan, Senior Pipe Fitter for the Gas, Water & Sewer Division is the safety employee of the quarter. For more than a year Justin has been responsible for the installation of anodes in steel distribution systems in both Los Alamos and White Rock. Anodes are a means of providing cathodic protection to prolong the life of pipelines by mitigating the corrosion process of steel. Thanks to Justin's efforts, more than 90 percent of the Department's steel distribution system meets the minimum standards and leaks are well below the national average of leaks per mile. The pipelines look like they were installed yesterday, even though some areas of town have pipes older than 60 years. More importantly, Justin has reduced the threat of dangerous leaks, keeping us all safe and saving the Department money.

STEPHEN MAREZ
ELECTRICAL ENGINEERING MGR

Electric Linemen
To minimize the inconvenience to customers, electric linemen scheduled an outage after 10 p.m. to upgrade the distribution system that services the Western Area.

ELECTRIC DISTRIBUTION DIVISION UPDATE

During quarter 4, punch list items were completed by the DPU electric crews on the New Mexico Department of Transportation project to rehabilitate NM 502 and construct a round-about.

Electric engineering staff worked with customers at the Gold Street Apartments to install electric master meters on all buildings. Staff also coordinated with the apartment owner to add a 25-kilowatt photovoltaic system at the complex.

DPU's pole testing contractor is progressing through the county's electric distribution grid and the transmissions lines at Abiquiu and El Vado hydroelectric facilities. Specifically they are testing wooden poles for integrity and strength. Preventative maintenance occurs immediately on all comprised poles. This includes reinforcing poles with braces and, if appropriate, adding fumigates to stop internal decay. Work will conclude the first quarter of FY 2022.

Crews with the Utility Meter Solutions (UMS) finished installing residential electric smart meters, as part of the Advanced Metering Infrastructure project. Remaining residential meters are those that have been stuccoed into the home and can't be removed or are located behind locked gates and coordination was not able to occur.

The delivery of commercial electric smart meters are slowly trickling in. Upon receipt, the Department's electric linemen test and install the new meters for commercial customers.

Development is underway for upper Confianza Street, which is phase two of the Mirador subdivision in White Rock. Electric line crews continue to install conductors, transformers, and meters to service the new subdivision.

To prepare for a potentially dry and windy summer season, the Department has prioritized trees for its contractor that need to be removed or cleared away from power lines. Trees in the canyons and the ski hill remain a focus in quarter 4, ahead of the monsoon growth. Long stretches of trees were also cleared from under power lines in White Rock and Barranca Mesa.

The Los Alamos Substation Switchgear project is delayed due to the Los Alamos National Laboratory site construction issues. The anticipated date for completion is now spring of 2022. When completed, the townsite will have a second substation and eight new power lines with which to distribute power. The project is import to ensure reliable power to Los Alamos County.

Engineering staff is designing FY22 capital improvement projects as defined in the last condition assessment. The supply chain for all materials is strained. Products that typically arrived in four weeks are now taking 20 weeks. Engineering is working with Procurement to order materials in advance to prevent material shortages. The high number of projects within the county is putting a strain on supplies needed for maintenance and repair.

Electric engineering continued to support work on designs and specifications for several projects:

- DP Road Phase 2 – Full utility replacement – In Design
- Starbucks on Trinity- Design Finalized
- The Marriott Hotel and Convention Center- Design Finalized
- The White Rock Sewer Plant- 100% design complete Construction Begins in Q1 Fy22
- The White Rock Effluent water booster station- Begins in Q4
- The Canyon Rim Trail Underpass Project- Construction underway
- The Hills Apartments- Design Finalized
- Arkansas Place Apartments– In Construction
- Canyon Walk Apartments– In Construction
- Canyon Walk Apartment Off Site Development– In Construction
- The Bluffs Apartments- In Design
- El Vado Hydro Electric Transformer Project- Design and specifications Finalized
- Century Bank – In Construction
- Pet Pangaea- In Design
- Aquatic Center Leisure Lagoon- In Construction

System Average Interruption Duration Index

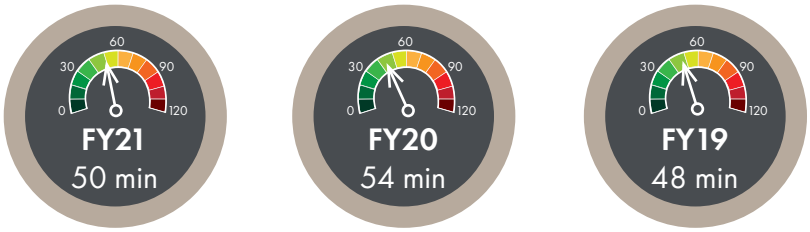
As a reliability indicator, DPU measures its System Average Interruption Duration Index (SAIDI). This is a formula to determine the annual average time that a DPU customer could expect to be without power. According to the Energy Information Administration (EIA), the mean SAIDI in 2019 was 132 minutes without major events and 267 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/data/eia861/

DPU set a goal in 2008 to reduce its SAIDI to below 60 minutes (including major events). At the end of quarter 4, FY2021 DPU's SAIDI dropped to 50 minutes which includes major events. This is below the DPU 60-minute goal and well below the 2019 National mean SAIDI of 267 minutes.

QUARTER FOUR

QUARTER FOUR DPU RESULTS

As of June 30, DPU's rolling 12-month SAIDI results for quarter 4 were 50 minutes in FY 2021; 54 minutes in FY 2020; and 48 minutes in FY 2019.

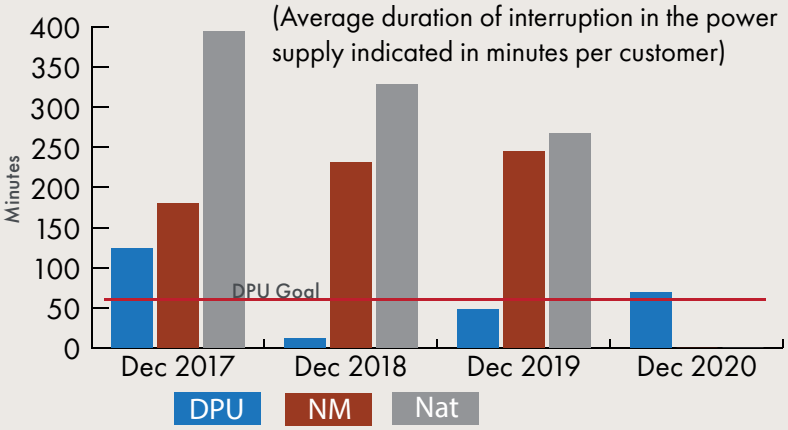


CALENDAR YEAR RESULTS /Comparisons

Reliability reports issued by the Energy Information Administration* demonstrate that DPU's SAIDI is lower than 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. *Note that the EIA will release Dec. 2020 SAIDI data in Oct. 2021.*

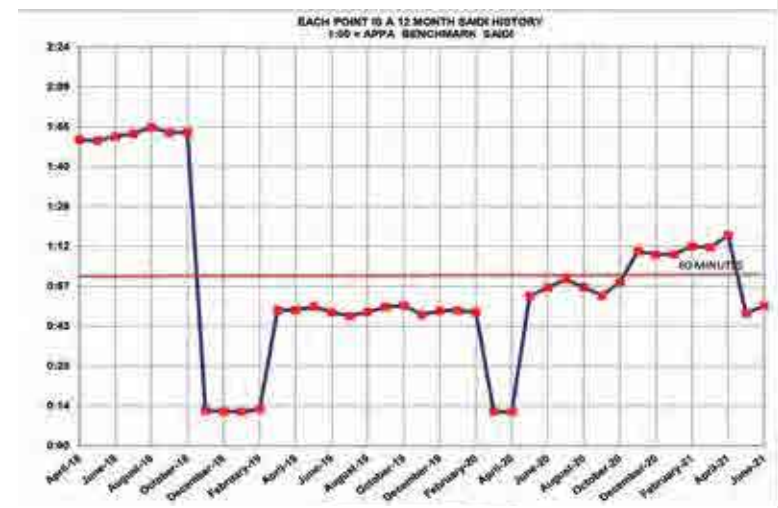
*EIA website - https://www.eia.gov/electricity/data/eia861/

System Average Interruption Duration Index
(Average duration of interruption in the power supply indicated in minutes per customer)



DPU SAIDI /2018 - Present

DPU records its SAIDI each month (the rolling 12 month average), and includes major events. In November 2017 DPU experienced a major event when the incoming transmission line from Los Alamos National Laboratory was lost and the townsite lost power, negatively impacting DPU's SAIDI. This event carried over for 12 months until November 2018.



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 rooftop 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 quarter 4, distributed generation resources total 2,897 kilowatts connected to the distribution grid.

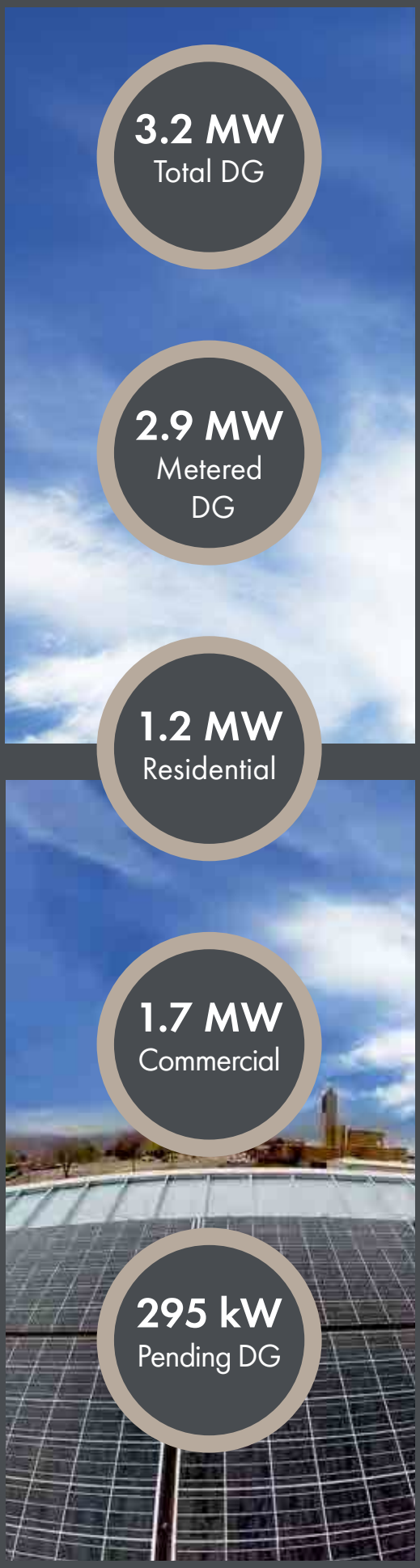
- Residential systems total 1,246 kilowatts, and
- Commercial systems total 1,651 kilowatts.

New Distributed Generation

1,382 kilowatts of distributed generation were added to DPU's electric distribution grid during quarter 4.

Pending Distributed Generation

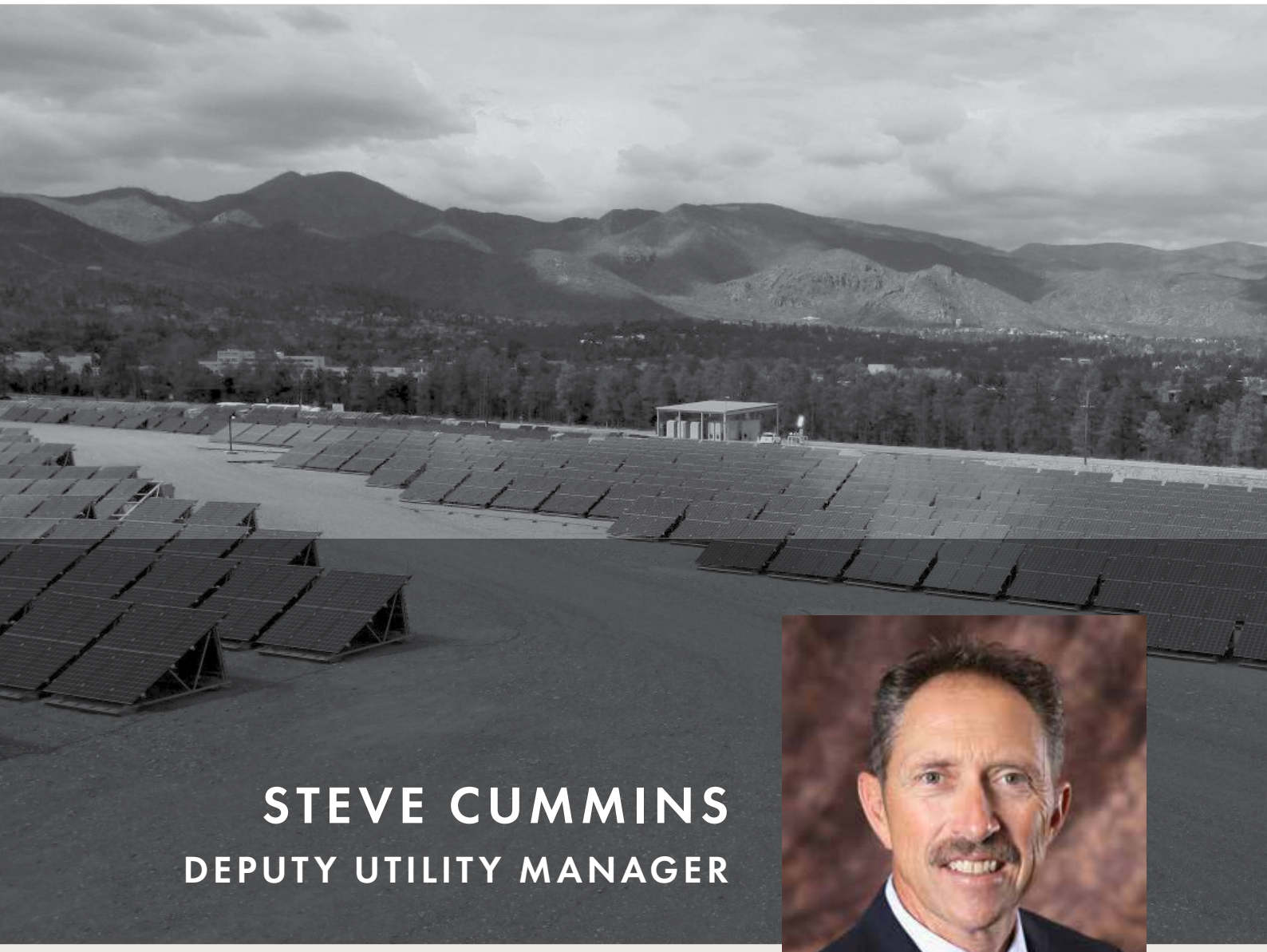
Currently customers are in the process of adding another 295 kilowatts of distributed generation to DPU's electric grid.



CARBON-NEUTRAL ELECTRICAL ENERGY PROVIDER

On January 20, 2016, 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.



STEVE CUMMINS
DEPUTY UTILITY MANAGER

Photovoltaic (Solar) Array on the Landfill
One megawatt solar array on the landfill. This past quarter 400 kilowatts were returned to service after an inverter failed.

ELECTRIC PRODUCTION DIVISION UPDATE

San Juan Generating Station (SJGS)
DPU staff continues to work with the other SJGS owners on the potential shut down of the Station on June 30, 2022. The station may remain open past the expiration date if the City of Farmington and Enchant Energy are successful in pursuing a project which would convert the facility to capture carbon. DPU notified all parties that it will exit the facility in 2022 as planned, but it will work with the other parties to iron out any contractual details related to future plant closure obligations.

Last July, the City of Farmington presented an update on the carbon sequestration project. The front-end engineering and design study is delayed until later this year. Enchant is withdrawing its early access agreement request and adjusted its schedule to reflect construction upon ownership transfer. If the project is realized, the commercial operation date would be in December 2024 with full carbon capture operations achieved by June 30, 2025. The parties agreed to draft a term sheet with a break-up fee to recognize the efforts of negotiating with the City of Farmington and Enchant Energy while also pursuing a parallel path for the final decommissioning study in the event both parties cannot reach an equitable agreement.

Hydroelectric Facilities
Staff continues to perform recurring maintenance as scheduled and support the planned capital projects. DPU employees issued a request for bids to purchase and install the equipment to replace the El Vado transformer. No bids were received. Our consultant sought feedback from a potential bidder as to why it chose not to respond. The contractor reported that a large transformer requires a significant deposit upon ordering. With the lead time upwards of a year, bidders were not willing to front the deposit. Based on this information, DPU staff will work with County Procurement to purchase a transformer. A modified request for bids will then be issued that specifies the contractor install the transformer supplied by the County. The new schedule will coincide with the dam face repair work by the Bureau of Reclamation in the fall/spring of 2022/23.

Painting of rails, equipment and appurtenances at the Abiquiu facility is complete. The painting contractor is now working at the El Vado plant. DPU's hydroelectric plant staff continue to work with each other to adequately man the two plants during COVID.

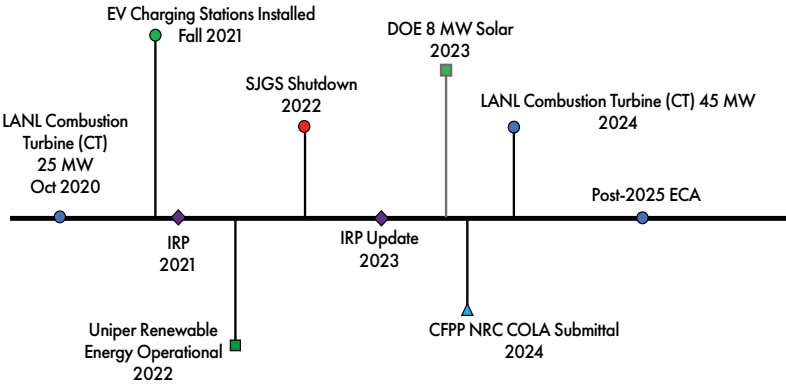
One-megawatt Solar Array/Landfill
An inverter failed at the one-megawatt solar array on the Los Alamos landfill, taking 400 kilowatts off-line. Staff received one bid and the agreement was approved at the April Board meeting. The 400 kW of PV panels were returned to service this quarter.

The County's Procurement staff are acquiring an appraisal of DPU's sodium-sulfur and lead acid Battery Energy Storage System (BESS) located off of East Jemez Road. Once obtained, a request for proposals will be issued to decommission the BESS in total or in parts depending on the labor cost, disposal costs and salvage values offered for the various pieces of equipment. Procurement will reach out to the four original offerors who had submitted proposals prior to DPU terminating the initial process after it was discovered that an appraisal of the BESS was required first.

Energy Imbalance Market (EIM)
The Public Service Company of New Mexico (PNM) went live operating in the California Independent System Operator Energy Imbalance Market (EIM) on April 1, 2021. Scheduling software was updated to push forecasted generation and load information to PNM. DPU staff issued recruitments four times to hire a new full-time employee to perform recurring EIM-related work. A qualified candidate responded to the last recruitment effort, but later rescinded the acceptance offer. Staff will reevaluate the other applicants for the position and select the best path forward. Until then, DPU staff is working diligently to stay apprised of the EIM and any impacts it may have on the operation. Current staff is meeting EIM obligations while working to fill the position, but at a reduced level of detail due to the additional workload.

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 BPU adopted policies are described here.

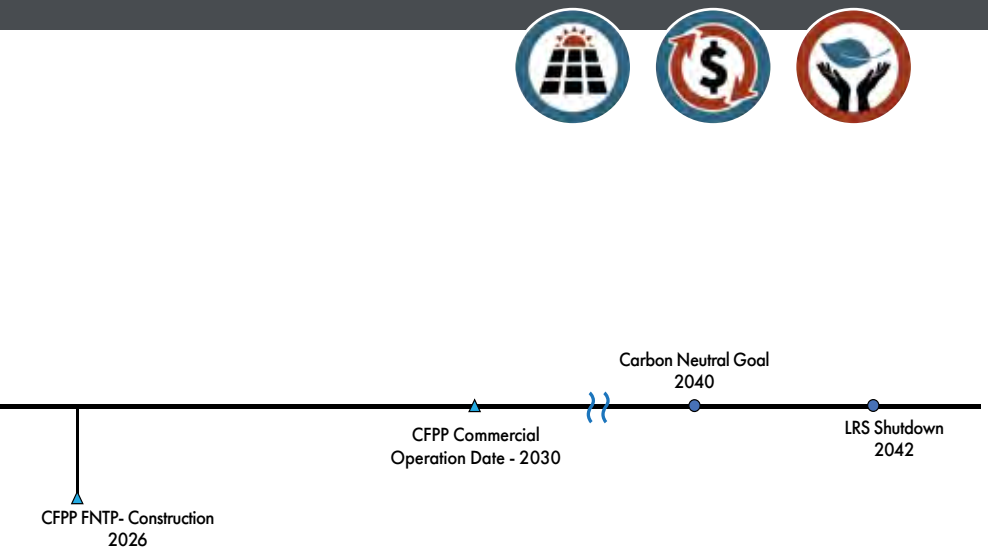


Electric Vehicle (EV) charging stations
On September 18, 2020, DPU received a signed Project Agreement from the New Mexico Environment Department (NMED) formalizing two grants for electric vehicle charging stations. The grants provide $63,800 for the construction and operation of one direct current fast charger at the White Rock Visitor Center parking lot and $71,800 for the construction and operation of one direct current fast charger at the Los Alamos County Municipal Building parking lot. The Electric Production division has budgeted an additional $150,000 for the installation of electric vehicle chargers; approximately $50,000 for grant matching on the two fast chargers, and $100,000 for the construction and operation of additional level-two chargers subject to Board and Council approval. The competitive procurement process for the materials and labor to install the charging stations was delayed for this quarter to help relieve Procurement's workload. Procurement is on track to advertise the EV charging station request for proposals on September 3, 2021.

Carbon Free Power Project
Through DPU's membership with the Utah Associated Municipal Power Systems (UAMPS), DPU has been 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.

On July 27, 2021, the Council approved DPU's continued participation in the CFPP project through the remaining phase 1 of the combined operating license application licensing period, scheduled for September 2022, which is also the next off-ramp, with no additional cost beyond the previously committed $1.26 million. 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. The projected levelized cost of electricity from the project was adjusted to $58/MWh, which is achieved with full subscription. NuScale continues to work on a 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 of the CFPP. The first subscribers in the project will have an opportunity to increase their subscription 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 megawatts 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 construction in New Mexico. Solar power will be supplied from a project in northwest San Juan County with wind power coming from a generation center in central New Mexico. LAC expects to begin taking power from this contract on January 1st 2022, just prior to LAC exiting the San Juan Generating Station in June 2022.



FUTURE ENERGY TIMELINE

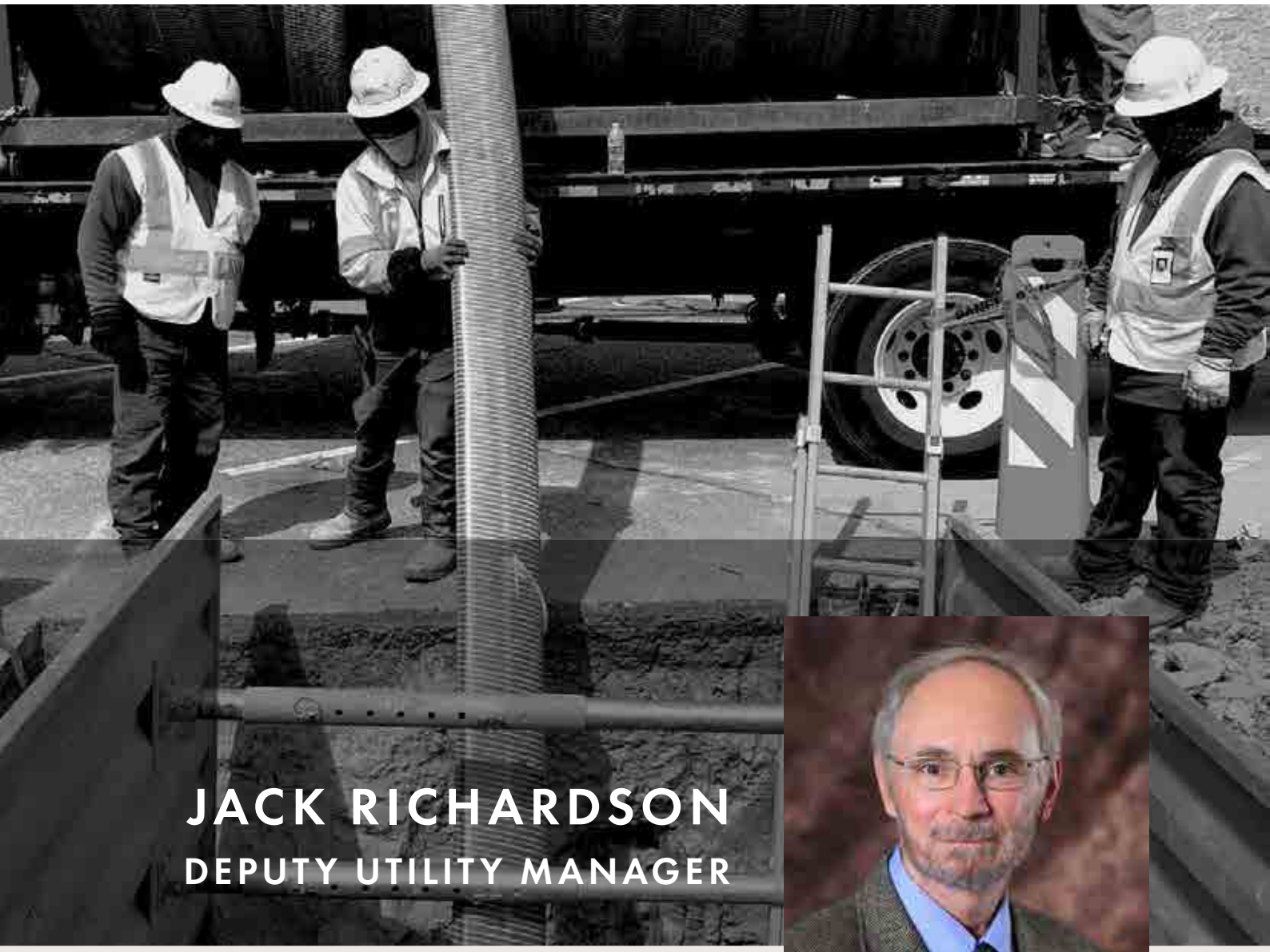
Electric Coordination Agreement (ECA)
Staff continues to work with DOE-NNSA on a post 2025 ECA. Both parties are meeting monthly with the goal of having a tentative agreement by June 2023. Staff is supporting DOE-NNSA efforts on updating their Inter-agency Agreement with Western Area Power Administration (WAPA) that would allow DOE-NNSA the ability to contract through WAPA for Power Purchase Agreements for periods up to 40 years. This option will allow DOE-NNSA to secure power for LANL into the future. The first project under consideration in an 8 MW solar PV array to be constructed at LANL using a purchase power agreement for an expected 25-year term.

Sandia & Kirtland Airforce Base (SK) merchant desk services
Staff continues to support SK in a post 2023 PPA to meet their combined power demands. These efforts are also requiring the updated IA between DOE-NNSA and WAPA. Kirtland Airforce Base is currently undergoing a study on how best to meet the power demands into the future for a Department of Defense (DOD) Facility considering resilience while also moving towards more sustainable resources such as renewables. DPU staff is supporting this effort as their Merchant Desk Service provider

Laramie River Station (LRS)
Staff continues to work on alternatives for exiting the LRS prior to the end of the Life-of-the-Plant PPA. With the County's exit from the San Juan Generating Station in June of 2022, the only remaining controllable resource is LRS. Real time operations need a controllable resource to adjust generation to match load after the scheduling window is closed. Since LRS is one our cheapest resources, DPU has the potential to enter a power swap with a Power Marketer who is developing wind and solar resources in the region. The swap would be a firm power, unit contingent swap at no additional cost above what the County is currently paying. Staff will continue to explore options through the Integrated Resource Planning efforts for a controllable resource

FER Timeline

The timeline (left) 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 provides 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 is planning on updating the 2017 IRP in 2021 to see if there are any changes in the recommended resource portfolios for achieving our 2040 carbon neutral goal. There are three future contract dates which provide an opportunity to shape our future power supply. First the expiration of the San Juan Project Participation Agreement and anticipated shut down of the San Juan Generating Station in 2022. Second, the County's expected exit from the coal-fired Laramie River Station, where the County signed a life of the plant (2042), power purchase agreement. Third, the expiration of the current Electric Coordination Agreement (ECA) between the County and DOE-NNSA LANL in 2025. Through the current agreement 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.



JACK RICHARDSON
DEPUTY UTILITY MANAGER

16-Inch water line insertion project on Pajarito Road.
This project utilized a revolutionary new pipeline rehabilitation material using a thin Kevlar material encapsulated within a thin polyethylene inner and outer shell used to slip line the existing pipeline and was completed in April 2021.

GAS, WATER & SEWER DIVISION UPDATE

COVID restrictions for the Gas, Water and Sewer; Water Production, Wastewater and Meter Reading divisions were relaxed during this quarter. We assume they will stay relaxed unless the Delta variant surges locally. The quarterly condition assessment on the sewer system was presented to the Board of Public Utilities this quarter. The next quarterly condition assessment on the gas system is due in October (2nd Quarter FY 22).

Staff from the Gas, Water and Sewer Division are having a difficult time getting state certification testing accomplished. For months the reasons were associated with the pandemic restrictions, but now the reasons seem to be related to the transferring of testing procedures from the New Mexico Environment Department to the Department of Work Force Solutions (DWS). Staff has been delayed repeatedly due to a lack of testing availability and many are anxious to continue with their career advancement opportunities.

Gas, Water, Sewer (GWS)

The new SCADA system contract for wastewater collection and natural gas has begun. The contractor has started development of HMI (Human Machine Interface) screens and background programming as well as acquisition of the necessary software licenses. Fairway sewer lift station field work for the SCADA prep was completed this quarter. Other priorities and circumstances within GWS have kept the full crew busier than projected and have delayed the completion of the additional sewer lift station field work needed for the SCADA prep. Gas system SCADA prep work design in the Engineering Division continues and construction bidding is scheduled in the near future.

The sewer crew continues daily visits to two small volume sewer lift stations due to faulty control systems. Two other sewer lift stations with faulty control systems continue to run on temporary emergency control systems. The plan is to have all sewer lift stations up and running with new control systems, and SCADA monitoring within the next three months.

Water breaks were frequent this quarter for a variety of reasons. Pipeline breaks were normal and caused by the usual reasons of hot/cold ground movement and pressure surges. A new development in water system breaks is now occurring because water isolation (gate) valves installed around the 2004 time frame are starting to fail prematurely. Typically a water system valve would have an estimated useful life of 40 (plus) years. These valves are failing at near 20 years in the ground. Fasteners (bolts & nuts) that hold the valves together are rusting away and the valves are basically breaking into two pieces. The cause is probably a combination of ground soil type and salt laden water intrusion into the water pipeline trench. DPU staff is developing a project to hire an outside contractor to investigate all valves and locate and replace leaking valves before they break and cause major water losses. DPU is also modifying its standard procedures for water valve installation to coat all newly installed valve fasteners (nuts & bolts) with a corrosion protective material used on steel gas lines to prevent, or slow down, corrosion.

The in-house cathodic protection project in White Rock to replace anodes to prevent steel pipelines from corroding, was completed this quarter. The DPU On Call Miscellaneous Projects bid documents were finalized this quarter and the bids were let out on the street. By the next quarter the DPU should have up to three firms to select from within a DPU controlled on call contract.

A combined DPU/Public Works project in the Alamo/Capulin area off San Ildefonso Drive on North Mesa started this quarter: water and gas system replacement is occurring for the DPU portion of the project. The new vault for the fairway sewer lift station was completed this quarter. Completed this quarter was the piping portion of the capital improvement plan project to add a pressure regulating valve station in Barranca Mesa. This project is in preparation to repaint the Barranca Mesa Tank No. 2. The surface improvements for a new vault top and access lid will be completed next

quarter.

The GWS crew said goodbye to long-time crew members. Steve Harshman and Loren Freyer retired and Esequiel Garcia was recruited away from us by the Los Alamos National Laboratory. Congratulations to Ricardo Lambert on moving from limited-term to full-time employee status to replace Esequiel. Steve's replacement is pending.

Water Production

Management continues to coordinate with DOE/LANL staff on the revisions to the ownership and operation and maintenance responsibility determinations for DPI pipelines in DOE property. Progress is being made and a conclusion of this effort is expected within the next few quarters.

The waterline repair project along Pajarito Road on Department of Energy land near the Diamond Drive intersection was completed this quarter. Slipped into the existing pipeline, the revolutionary pipeline rehabilitation sleeve utilizes a thin Kevlar material encapsulated within a thin polyethylene inner and outer shell.

Installed and successfully tested this quarter was the new cooling system for Pajarito Well No. 4. The well is up and running basically full time and is performing very well in terms of the amount of water pumped into the system during the high water demand season.

The project to design the new Otowi Well No. 2 pump equipment and housing was bid and awarded this quarter. The State funding / loan agency has agreed to increase the Department's loan amount for this project since the bid cost came in significantly above the engineer's estimate. This is due to the pandemic which affected supply chain and construction cost issues throughout the country. Bids for the Tsankawi chlorination building and partial NM State Road 4 pipeline replacement project have been received and will be awarded next quarter.

Construction of the Overlook Park Booster Station for the non-potable water system was started this quarter. The expected increased construction bid cost was accepted by the State funding / loan agency with an increased loan amount approved. The non-potable system Bayo Booster Station Tank No. 2 project bid documents are complete but the bidding is being held until next quarter to verify funding availability in the water system fund. Design is nearing completion with bidding and award scheduled for next quarter. A project at Pajarito Booster Station No. 2 was initiated this quarter. It will replace the failing pipeline and water meter serving the chlorination injection system with a new pipeline, meter and injection equipment inside a new vault.

Wastewater Treatment

The New Mexico Environmental Department issued a finding of no significant impact on the White Rock replacement wastewater treatment plant, clearing the environmental process for the project. The plans and specifications were finalized with minor additions this quarter. Bidding documents were completed and a bid date is set for next quarter. Coordination with the funding / loan agency is ongoing with contingencies in place should COVID-related cost spikes affect the expected construction costs. Staff is also working with the BPU and County Council for possible special bid award meetings to decrease the time between bid opening and bid awarding to minimize costs.

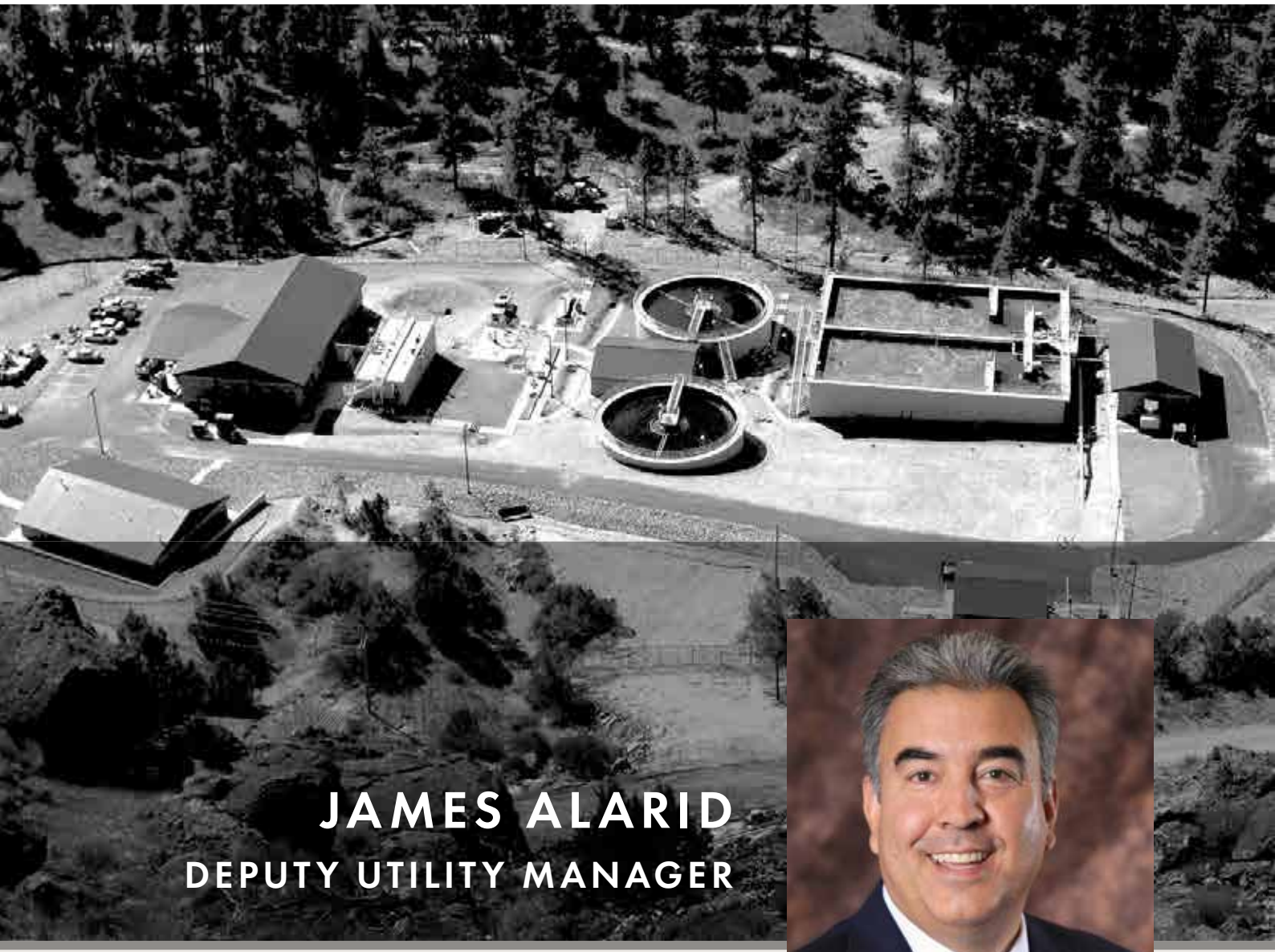
The Bohannan Huston/DPU team began designs to add tertiary filtration equipment to the Los Alamos wastewater treatment plant to upgrade the effluent classification from 1B to1A. This effluent quality upgrade will enable the non-potable system to expand along the Diamond Drive corridor once the land purchase from U.S. Forest Service to the County is completed and the Group 12 non-potable storage site is expanded.

A small project to regrade portions of the compost facility was completed this quarter. This project sets the stage for a less costly expansion project scheduled for design next quarter. A second small regrading project was initiated to allow operators to dispose of excessive "overs" (larger sized green waste material used in the composting process) on the banks of the fill slopes. Disposal of this material in these locations enables staff to improve the aesthetics of the compost facility by providing better vegetative cover of the fill slopes around the perimeter of the compost facility.

Meter Reading

The AMI project continued this quarter. Work to attach communication modules to water meters are essentially complete. Attaching modules to the gas meters has resulted in some problems for which solutions are being discussed and implemented with Ferguson. The large size commercial water meters that were recently ordered are being delivered and will be replaced in the field as scheduling allows. A good portion of the GWS crew is quite busy on this project. Hundreds of gas and water meters need to be replaced before AMI modules can be attached and the project is considered fully implemented.

Wastewater treatment plant sludge composting



JAMES ALARID
DEPUTY UTILITY MANAGER

Los Alamos Wastewater Treatment Plant
The Bohannan Huston/DPU team began designs to add tertiary filtration equipment to the Los Alamos wastewater treatment plant to upgrade the effluent classification from 1B to1A.

ENGINEERING DIVISION UPDATE

There are several projects under construction this summer. Replacement of the gas and water distribution systems as part of the North Mesa Road and Utility Replacement project is progressing well. All water and gas mains and services beneath the new paving will be replaced. Work on two cul-de-sacs in the project footprint are completed and work in Alamo and Capulin roads is on schedule to be completed by the end of September.

Construction of the new Overlook Booster Station in White Rock is on schedule. The contractor completed all the underground piping and building foundations. Next, he will construct the building walls. Remaining work includes completion of the building, installation of the electric gear and the final site work. The new booster station will be ready to commission this October.

In preparation for the new Otowi Well #2, DPU is constructing a new Tsankawi chlorination building and installing a new 16-inch waterline along NM-4. Scheduled to kick-off by mid-August, the project replaces a section of waterline that has experienced numerous leaks and replaces an undersized and aged chlorination system. The new chlorination equipment will be housed in a new building and will adequately disinfect the increased flows from the new well.

The pump house and equipment for Otowi Wells #2 were awarded. Project permitting and submittal review are ongoing, with onsite work set to start in the upcoming month. This project is in the last phase of construction and will place the new well into operation in the Spring of 2022.

A consultant with water production electric gear expertise was retained to evaluate the needs of our 27 wells and booster stations. Inherited from the DOE/NNSA, the facilities have no literature nor maintenance records for staff to reference when electric equipment fails. With the consultant's assistance, an effective capital improvement program will be developed for these facilities. Field investigation is complete, and a final report to identify deficiencies and prioritize needs is underway. DPU will apply for a Drinking Water State Revolving Loan to complete $2.7 million of the highest priority improvements identified by the evaluation.

Bids were received for the Bayo Booster Station Non-Potable Water Tank. The bids were extremely high and the project was not awarded. DPU has coordinated with the New Mexico Finance Authority who administers the loan/grant agreement associated with this project to build the project in two phases. Phase I is currently being redesigned as a reduced scope of work which will be within the existing budget. We will apply for phase II of the project from the Water Trust Board in 2022.

Painting is underway at the Abiquiu and El Vado hydroelectric plants. To provide protection to the facilities for decades, crews are painting the roof decks, cranes, exterior hatches, doors, and interior floors. Work at the Abiquiu plant is nearly complete and then the contractor will move to the El Vado plant.

Bids were advertised to furnish and install a new transformer at the El Vado hydroelectric plant. No bids were received. We will proceed to procure the transformer directly from the manufacturer and procure the service of a commercial electrical contractor to install the transformer when received. Due to supply chain disruptions caused by the Pandemic, the expected time to manufacture and deliver the transformer is more than a year. This is double the delivery time from before the public health emergency.

We were awarded a grant/loan from the Water Trust Board for the installation of a filtration system at the Los Alamos wastewater treatment plant. The filtration system will improve the effluent water quality to Class 1A, which is the cleanest achievable. This will allow effluent use to be expanded to more populated areas. Our on-call engineering firm is completing the design of the new filtration system with an expected completion date in the spring and summer of 2022.

Our engineering team is in the process of designing improvements to the gas border stations in Los Alamos and White Rock. Metering, pressure relief valves and supervisory controls and data acquisition systems will be installed at each border station to provide remote monitoring and protection of the gas distribution systems. The project will be bid in September 2021 and constructed in the upcoming winter and spring.

Design work to modify and upgrade piping in the vicinity of several water production tanks is moving forward. The modifications will improve reliability, efficiency, eliminate leaks, support chlorination systems, and replace nonfunctional valves.

The White Rock wastewater treatment plant design is complete and is approved by the NM Environment Department Construction Programs Bureau. We will advertise for bids in August 2021. Construction is anticipated to take 18 months with a new plant in service by the summer of 2023.

CAPITAL IMPROVEMENT PLANS FY2021

PLANNING DESIGN CONSTRUCTION

	BUDGETED	QTR 1 07/20	08/20	09/20	QTR 2 10/20	11/20	12/20	QTR 3 01/21	02/21	03/21	QTR 4 04/21	05/21	06/21
ELECTRIC PRODUCTION	**$800,000**												
Replace El Vado Transformer	400,000												
Replace Abiquiu Office	150,000	DEFERRED											
Evaluate El Vado Penstock	100,000												
Redesign & Install El Vado Shaft Seal	150,000	DEFERRED											
ELECTRIC DISTRIBUTION	**$750,000**												
Replace Switches w/New Conductors	200,000												
Replace Primary Conductors	200,000												
Construct Maintenance Bldg (cost shared)	50,000	DEFERRED											
Remove Open Secondary	300,000												
NATURAL GAS DISTRIBUTION	**$350,000**												
Construct Maintenance Bldg: cost shared (deferred)	50,000	DEFERRED											
Improve Gas Border Stations	300,000												
WATER PRODUCTION	**$9,656,926**												
Develop Risk/Emergency Response Plan	120,000												
Install Camp May Waterline (LAC/ 3rd Party)	4,000,000												
Const. Otowi 2 Well House/Rep. Otowi 4 MCC	1,900,000												
Construct Maintenance Bldg: cost shared (deferred)	50,000	DEFERRED											
Upgrade Tank Piping	300,000												
Install New Non-Potable Water Tank	1,080,000												
Stabilize Los Alamos Reservoir Road	2,206,926	DEFERRED											
WATER DISTRIBUTION	**$150,000**												
Construct Maintenance Bldg: cost shared (deferred)	50,000	DEFERRED											
Replace Barranca Mesa PRV Station	100,000												
WASTEWATER	**$14,850,856**												
Construct Maintenance Bldg: cost shared (deferred)	50,000	DEFERRED											
Replace White Rock Wastewater Treatment Plant	14,800,856												

Replace El Vado Transformer

(Funded through: Electric Production)
Scope: Replace the transformer at the El Vado hydroelectric plant.
Budget: $400,000
Schedule: Purchase transformer October 2021.

Replace Abiquiu Office

(Funded through: Electric Production)
Scope: Relocate and replace the office at the Abiquiu hydroelectric plant away from the transformer for safety reasons.
Budget: $150,000
Schedule: Deferred to fiscal year 2022

Evaluate El Vado Penstock

(Funded through: Electric Production)
Scope: Evaluate the penstock valve to coincide with and take advantage of the dam refurbishment work that is planned by the Bureau of Reclamation.
Budget: $100,000
Schedule: Complete

Redesign & Install El Vado Shaft Seal

(Funded through: Electric Production)
Scope: Redesign and install a new shaft seal at the El Vado hydroelectric plant with one that is self-lubricating.
Budget: $150,000
Schedule: Deferred

Replace Switches

(Funded through: Electric Distribution)
Scope: Replace aging switches with new conductors throughout Los Alamos County

Budget: $200,000
Schedule: Year round

Replace Primary Conductors

(Funded through: Electric Distribution)
Scope: Replace aging primary conductors throughout Los Alamos County.

Budget: $200,000
Schedule: Year round

Construct A Maintenance Bldg

(Funded: Elect. Dist., Water Prod. & GWS)
Scope: Construct a maintenance facility at the White Rock replacement wastewater treatment plant that can be used by field crews with electric distribution, gas, water & sewer, and water production.
Budget: $250,000
Schedule: Deferred to fiscal year 2022

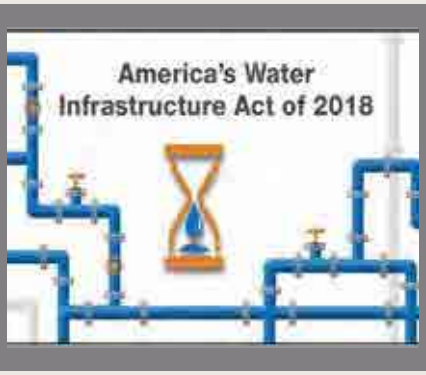
Remove Open Secondary

(Funded through: Electric Distribution)
Scope: Remove open secondary

Budget: $300,000
Schedule: Year Round

Improve Gas Border Stations

(Funded through: Gas Distribution)
Scope: Improve natural gas border stations (two) with over pressure protection, metering and SCADA functions. Will permit staff to monitor and trend the flows and pressures at these critical points in the system.
Budget: $300,000
Schedule: Bid September 2021



Prepare Risk & Resilience/ Emergency Response Plan

(Funded through: Water Production)
Scope: Prepare a risk and resilience assessment and an emergency response plan in accordance with the 2018 America's Water Infrastructure Act. Utilities must certify to the Environmental Protection Agency completion of each.
Budget: $120,000
Schedule: Completed by August 2021

Install Camp May Waterline

(Funded: Los Alamos Co. & Ski Hill Operator)
Scope: Install four booster stations and 23,000 feet of waterline along Camp May Road. The project will convey water from the existing potable water system in Los Alamos to the ski lodge, Camp May campground and provide a reliable water supply for regional fire protection.
Budget: $2,000,000 (LA County)
$2,000,000 (Ski Hill Operator)
Schedule: Constructing pending environmental clearance

Construct Otowi 2 Well House, Replace Motor Control Center for Otowi 4 Well

(Funded through Water Production)
Scope: Construct the well house,install pumps and associated equipment for Otowi Well 2. Replace the motor control center for Otowi Well 4 which is located in the same vicinity.
Budget: $1,900,000
Schedule: Complete by May 2022

Upgrade Tank Piping

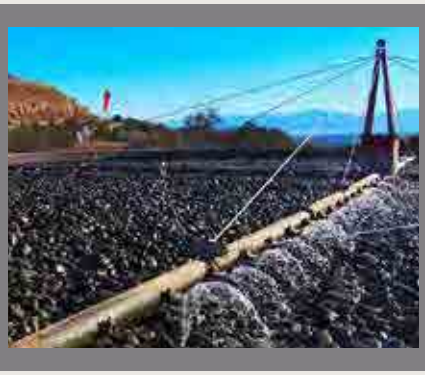
(Funded through: Water Production)
Scope: Replace miscellaneous valves throughout the water production system. Work will be performed by in-house staff and supported by contractors as needed depending on the complexity of the work.
Budget: $300,000
Schedule: Bid Fall 2021

Install New Non-Potable Tank

(Funded: Water Trust Board Loan/Grant and Water Production)
Scope: Install a new one million-gallon effluent storage tank at the Bayo booster station adjacent to the composting operation. The new tank will capture effluent during peak times to expand non-potable water use.
Budget: $1,080,000
($360k Loan / $540k Grant / $180k Match)
Schedule: Rebid September 2021

Stabilize LA Reservoir Road

(Funded: FEMA grant, Water Prod. & LAC)
Scope: Stabilize the Los Alamos Reservoir road. Clear debris from the channel and reroute the channel back to its original path.
Budget: $2,206,926
($1,5M Grant/$262,500 LAC/$262,500 DPU)
Schedule: FEMA reauthorized funds in 2020 - DPU is now pursuing a New Mexico River Stewardship grant.



Replace the White Rock Wastewater Treatment Plant

(Funded through: Wastewater Treatment)
Scope: Construct a replacement waste-water treatment plant in White Rock to be operational by FY21.
Budget: $14,800,856
Schedule: Bid August 2021

SUSTAINABLE LOS ALAMOS UPDATE

Reclaimed Wastewater
Reclaimed water use at 111 million gallons for fiscal year 2021 (July 31 through Jun 30, 2021)was higher than the previous two fiscal years. This treated water from the wastewater treatment plants in Los Alamos and White Rock is used to meet the county's demand to irrigate parks, ballfields and the golf course. With up coming capital projects to improve the quality of effluent at the Los Alamos plant, replace the White Rock plant and to expand and increase storage capacity, the Department expects to be able to provide more and better quality effluent to irrigate county and school turf areas.

Water & Energy Conservation
DPU has been working to update the Energy and Water Conservation Plan in fiscal year 2021, now that the Board of Public Utilities has adopted new conservation goals.

DPU maintains a conservation plan for the following three reasons.

- As a public water supplier, the Office of the New Mexico State Engineer (OSE), Conservation Division requires a current water conservation plan be reviewed, approved and filed with their office. The OSE has published a guidance document titled "New Mexico's Water Conservation Planning Guide for Public Water Suppliers." The guidance provides a template which must be adhered to for acceptance by the OSE. We will follow this template for both the water and energy components of the plan.

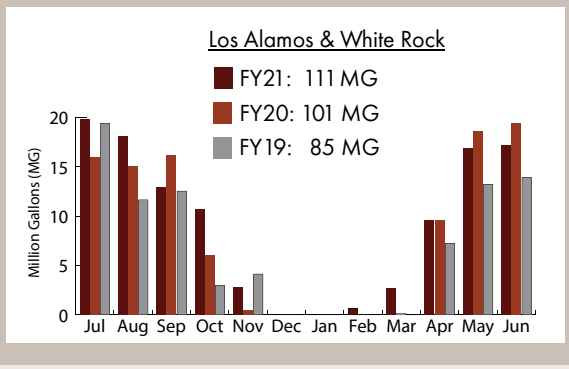
- As a requirement to receive the County's allocation of hydroelectric power from Glenn Canyon Dam, the Western Area Power Administration (WAPA) mandates members issue annual progress reports. The reports summarize the year's initiatives and progress in managing the electric demand and supply effectively and efficiently. This includes an energy conservation plan that establishes DPU's demand management strategies, initiatives and measurements.

- The third component of the Water and Energy Conservation Plan is establishing conservation initiatives, policy, programs and measures that reflect the community's demographics, planning efforts, residential and commercial sector and stakeholder interests. In 2015, DPU assembled an advisory group of community stakeholders which is typical in preparation of conservation plans. Gathering community input and recommendations ensure that there will be community buy-in and support.

In fiscal year 2020 a volunteer citizen committee at the request of the Board of Public Utilities, prepared a report and presented it at the July 2020 BPU meeting. The citizen committee recommended several initiatives that could be implemented to conserve water and energy in Los Alamos:

- Educating customers on a variety of topics including tracking usage, changing habits, etc.
- Customizing bills to compare usage with neighborhoods and the community at large,

Gallons of Reclaimed Wastewater Used to Irrigate County Turf



- Researching grants for conservation programs,
- Partnering with the public schools and the environmental services department,
- Developing ordinances that would restructure rates
- Working with other county departments to encourage building code changes, etc.

Based on these recommendations, board members adopted new or modified environmental goals at the October 21, 2020 meeting to be incorporated into the updated DPU energy and water conservation plan.

DPU employees were also asked by the BPU to survey the community on the overall sentiment of the adopted environmental goals. This was conducted by Triton Polling in December 2020. Results are as follows:

- 76.9% support and 11% oppose DPU's goal to be a carbon neutral electric provider by 2040.
- 87.4% support and 7.7% oppose DPU's goal to increase local solar (such as roof top solar panels) from two to six megawatts by 2040.
- 44.7% support and 32.1% oppose DPU's goal to reduce today's drinking water use by 12 percent by 2030.
- 68.8% support and 21.1% oppose DPU's goal to reduce today's natural gas use by five percent by 2030.
- 54% support and 33.7% oppose DPU's goal to eliminate natural gas usage by 2070 (requiring all energy use be from carbon neutral electricity).
- 81.8% support and 8.8% oppose DPU's goal to improve the reclaimed wastewater that is used to irrigate county and school turf so that it is the highest quality possible for unrestricted urban uses.

HEATHER GARCIA

ACTING DEPUTY UTILITY MANAGER

Los Alamos County Municipal Building
Suite 130 is where the DPU administrative offices and Customer Care Center are located.

FINANCE AND ADMINISTRATION

Electric Operations

In a continuation of what has been seen in the past several years, electric sales were below budget the entirety of FY21, both for retail customers and for sales to DOE. Retail sales were 12.37 percent below the budgeted 122,430,000 kWh and sales to DOE were 32.67 percent below the budgeted 609,518,000 kWh. Overall kWh sales for all customers were 29.27 percent below budget.

In electric distribution, the fourth quarter closed with year-to-date net operating revenues of $983,050. Due to an increase in demand in the southwest region, power costs spiked in August of 2020 and February of 2021, and LAC cost of power for the fiscal year was $70.690, compared to a budget projection of $47.997. This higher than projected cost of power was offset by the allocation of admin charges and several maintenance categories being significantly lower than anticipated. Increases in costs for power have continued through June of 2021 into FY22 but have been planned for. It is expected these maintenance programs will ramp up in FY22, but with COVID concerns it may be difficult to schedule crews to meet all maintenance goals. Capital expenditures totaled $852,479, which is 23.84 percent of the $3,575,730 revised budget for FY21.

The first three quarters of FY21 yielded total net income of $130,571 for electric distribution. Net income of $1,692,890 was budgeted for the year, which includes the profit transfer.

ENTRANCE TO THE MUNICIPAL BUILDING, HOME TO THE DPU ADMINISTRATIVE OFFICES AND THE CUSTOMER CARE CENTER.

Budget adjustments and carryovers totaling $3,808,002 yield a net loss budgeted at ($2,115,112), which would be funded through revenues earned in the budget year those expenditures were first budgeted. As the department moves forward with planned maintenance activities and capital projects, we should see the early net revenue dissipate over the year to match budget projections more closely.

Gas Operations

Due to continuing cool temperatures, gas sales in the last three quarters of FY21 were higher than budgeted, reversing the first quarter's result, and yielding year to date gas sales at 9.59 percent over budget, with total sales of 8,383,838 therms. Net cash flow from operations in the fourth quarter was a positive $230,761, reversing the first three quarters negative total operating cash flow and yielding year to date operating cash flow of negative $152,523. In February there was a short-term regional gas supply shortage due to a polar vortex weather event, and for a period of several days market cost of gas was extremely high. While we purchase most of our gas (approximately 80%) at month end prices through the New Mexico Energy Acquisition Authority (NMMEAA), we did have limited exposure to those market prices for a few days. The total additional gas cost of approximately $1.3M is covered by a budget adjustment approved in March, but because the "pass through" rate for gas has an upper cap of $0.99/therm, that additional gas cost took two months to recover through the rate. The "pass through" rate returned to normal for customers in June of 2021.

For the full fiscal year, gas operations' budgeted operating cash flow was originally $236,728, and the budgeted transfer to the general fund is $201,959. There are $350,000 capital expenditures budgeted in FY21. After the budget adjustment for gas purchases discussed above totaling $2,500,000, and 3,074,786 in other budget adjustments and carryovers, mostly related to the gas portion of the AMI project and other encumbrances, a negative net cash flow of ($5,890,017) is budgeted. The additional cost of gas was recovered through the pass-through rate mechanism over April and May of 2021. The remainder of that negative cash flow is funded from existing fund balance.

Water Operations

Retail water sales of 834,519 kgal were 7.68 percent higher than budget estimates of 775,000 for FY2021. Warm weather and a mild monsoon season most likely led to somewhat higher consumption for irrigation, tempered somewhat by continuing conservation efforts throughout the community. Wholesale sales to LANL of 306,540 kgal were 18.26 percent less than budgeted. The COVID Pandemic has resulted in numerous LANL sites being minimally staffed and normal domestic and irrigation consumption has likely been affected. Process loads at LANL may have been somewhat curtailed as well. Combined total sales in thousands of gallons for both Retail and DOE were .78 percent lower than budgeted for the fiscal year.

Net cash flow from water operations were $1,727,866 year to date. Capital projects funded through sales totaling $2,975,865 were budgeted in the water fund for the year, with $1,530,024 was expended in FY21, yielding total water net revenues of $197,842 for the year. Water production's budget includes certain projects that are to be funded from other sources, which will only be expended if those funding sources are realized. There are $6.8M in revenue funded projects budgeted, but only minimal costs on those projects have been realized as of the end of the fiscal year.

For the full fiscal year, water operations' budgeted operating cash flow is $851,928, and budgeted capital expenditures are $2,975,865, net of external funding. $5,339,788 in carryovers and budget adjustments, mostly related to the water portion of the AMI and several projects in Water Production result in budgeted net negative cash flow of ($7,463,725), funded through existing fund balance.

Wastewater Operations

Cash flow from operations was $2,660,433 for the year. There have been modest capital expenditures totaling $601,596 in FY21, yielding total net sewer revenue of $2,058,837.

For the full fiscal year, wastewater operations' budgeted operating cash flow is $1,721,316. In total, $14,850,856 in capital expenditures are budgeted, which includes the debt funded White Rock treatment facility. Besides the Treatment Facility, there were $50,000 in additional capital expenditures budgeted. With budget adjustments and carryovers totaling $2,627,326, total net negative cash flow is budgeted at ($956,010), funded through existing fund balance.

MUNICIPAL BUILDING
Home to DPU's administrative offices and the Customer Care Center.

Pass-Through Cost Of Gas

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/DPUGasRateSchedule.

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

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

Example: *Residential Family (7A) that used 30 therms in May 2021 **

$9.50 + [($0.23 + $0.99) x 30] =

$46.00

Example: *Commercial Customer (7E) that used 120 therms in May 2021 **

$28.50 + [($0.23 + $0.99) x 120] =

$174.90

Month & Year	Schedule	Projected Variable Cost of Gas	Adjustment to Prior Month Estimate	Total Variable Cost of Gas/Therm
Jun 2021	ALL	$0.34	($0.08)	$0.26
May 2021 *	ALL	$0.30	$0.69	$0.99
Apr 2021 *	ALL	$0.26	$0.73	$0.99

* DPU increased the variable cost of gas to $0.99 per therm for Los Alamos customers during the months of April and May to recover its escalated expenditures for the cost of gas during a six-day period in February 2021. An arctic cold snap occurred the week of February 14 and while natural gas production for Los Alamos was not threatened, the spot market prices for natural gas increased dramatically due to a decrease in production in Texas. The U.S. Energy Information Administration (EIA) reported gas production in Texas fell by almost 45 percent: https://bit.ly/3BIm3RU. Historically DPU expenditures fluctuate between $200,000 and $400,000 for the month of February. In February 2021, DPU's expenditures were over $1.3 million.

NATURAL GAS RATES

Fluctuating Gas Rates

Natural gas prices are mainly a function of market supply and demand and fluctuate. There are multiple factors that 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.

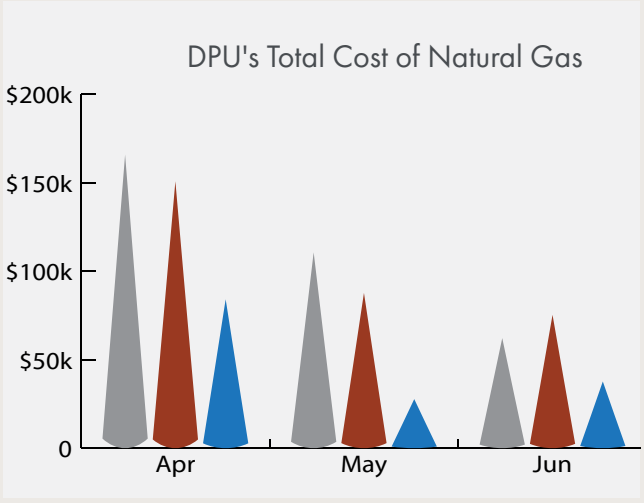
When comparing the variable cost of gas or the pass-through rate with the rates of New Mexico Gas Company, DPU's rates are usually lower although not always. This past quarter (three months) DPU's average cost at $0.39 per therm was higher than NMGC.

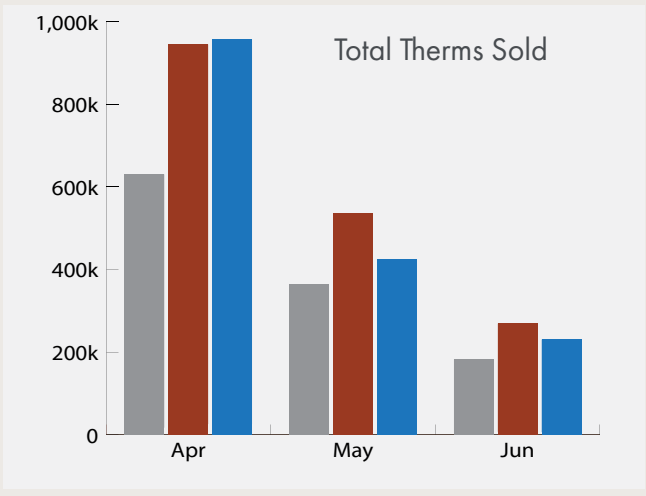
VARIABLE COST OF GAS/THERM

Mo/Year	DPU	NMGC*
Jun 2021	$0.26	$0.34
May 2021	$0.99	$0.20
Apr 2021	$0.99	$0.48
Avg price	**$0.39**	**$0.17**

**New Mexico Gas Company*
Source: nmgco.com/en/cost_of_gas

San Juan Index/MMBTU			Total Cost of Gas for Qtr 4			Total Therms Sold for Qtr 4		
	2021	2020		2021	2020		2021	2020
Jun:	$2.83	$1.50	Jun:	$75,347	$37,684	Jun:	269,326	230,609
May:	$2.68	$1.44	May:	$87,758	$27,727	May:	536,851	424,035
Apr:	$2.38	$1.08	Apr:	$150,809	$84,129	Apr:	944,749	956,630
			Total:	$313,914	$149,540	Total:	1,750,926	1,611,274





Estimate 2021 Actual 2021 Actual 2020

ELECTRIC OPERATIONS

Financial Status - Unaudited // FY2021

Fiscal Year: July 01 through June 30, 2021

	QTR 1	QTR 2	QTR 3	QTR 4	TOTAL
UNIT SALES: KILOWATT HOURS					
Total Retail Sales	28,486,530	26,221,690	28,561,544	24,015,497	107,285,261
Budgeted Sales	32,283,763	29,693,690	30,836,955	29,615,592	122,430,000
Retail Sales Variance	(3,797,233)	(3,472,000)	(2,275,411)	(5,600,095)	(15,144,739)
Sales to NNSA	124,408,781	108,184,345	68,001,554	109,809,100	410,403,780
Budgeted Sales to NNSA	169,653,529	168,664,348	122,071,214	149,128,909	609,518,000
NNSA Sales Variance	(45,244,748)	(60,480,003)	(54,069,660)	(39,319,809)	(199,114,220)
Other Wholesale Sales	1,805,485	1,758,165	1,472,323	2,093,323	7,129,296
Budgeted Other Wholesale Sales	2,639,839	1,904,703	1,680,613	2,412,361	8,637,516
Wholesale Sales Variance	(834,354)	(146,538)	(208,290)	(319,038)	(1,508,220)
Total Actual Sales	152,895,311	134,406,035	96,563,098	133,824,597	517,689,041
Total Budgeted Sales	201,937,292	198,358,038	152,908,170	178,744,501	731,948,000
Total Sales Variance	(49,041,981)	(63,952,003)	(56,345,072)	(44,919,904)	(214,258,959)
FINANCIAL RESULTS					
Electric Distribution Revenues	$3,887,257	3,450,251	3,902,774	3,143,114	14,383,396
Total Electric Production Expenditures	10,988,245	9,573,412	7,659,106	11,325,131	39,545,895
Total Electric Production Revenues	8,966,808	7,730,336	5,810,887	9,453,874	31,961,906
Net Cost of Power to Electric Dist.	2,021,437	1,843,076	1,848,219	1,871,257	7,583,989
Other Electric Dist. Operating Expenses	764,071	1,510,574	1,055,083	2,486,629	5,816,357
Total Electric Dist. Operating Expenses	2,785,508	3,353,650	2,903,302	4,357,886	13,400,346
Net Electric Dist. Operating Revenue	1,101,749	96,602	999,471	(1,214,772)	983,050
Electric Dist. Capital Expenditures	104,748	157,469	86,014	504,247	852,479
Net Electric Dist. Total Revenue	997,001	(60,867)	913,457	(1,719,020)	$130,571
BUDGETED					
Budgeted Operating Income(Loss)					$3,060,129
Budgeted Capital Expenditures					($750,000)
5% Revenue Transfer					($617,238)
Budgeted Net Income(Loss)					$1,692,890
Budget Adjustments*					(3,808,002)
Adj. Budgeted Net Income (Loss)					($2,115,112)

NOTE : *Includes carryforward project amounts, encumbrance rollovers and board/council approved budget adjustments.

NATURAL GAS OPERATIONS

Financial Status - Unaudited // FY2021

Fiscal Year: July 01 through June 30, 2021

	QTR 1	QTR 2	QTR 3	QTR 4	TOTAL
UNIT SALES: THERMS (100,000 BTU)					
Total Sales	571,648	2,069,410	3,991,853	1,750,927	8,383,838
Budgeted Sales	587,490	1,954,484	3,785,297	1,322,729	7,650,000
Retail Sales Variance	(15,842)	114,927	206,555	428,198	733,838
FINANCIAL RESULTS					
Gas Distribution Revenues	$539,535	$1,234,367	$2,243,054	$1,683,583	$5,700,538
Gas Other Revenues	($140)	($156)	($1,129)	$221,933	$220,508
Gas Distribution Operating Expenses	$377,814	$1,124,057	$2,591,898	$1,674,755	$5,768,523
Net Gas Operating Revenue	$161,581	110,155	(349,973)	230,761	$152,523
Gas Distribution Capital Expenditures	$104,663	$29,944	$9,460	$628,532	$772,599
Net Gas Revenue	$56,918	80,211	(359,433)	(397,771)	($620,076)

BUDGETED	
Budgeted Operating Income(Loss)	$236,728
Budgeted Capital Expenditures	($350,000)
5% Revenue Transfer	($201,959)
Budgeted Net Income(Loss)	($315,231)
Budget Adjustments*	($5,574,786)
Adj. Budgeted Net Income (Loss)	($5,890,017)

NOTE : *Includes carryforward project amounts, encumbrance rollovers and board/council approved budget adjustments.

WATER OPERATIONS

Financial Status - Unaudited // FY2021

Fiscal Year: July 01 through June 30, 2021

	QTR 1	QTR 2	QTR 3	QTR 4	TOTAL
UNIT SALES: THOUSAND GALLONS					
Wholesale Sales to LANL	98,546	84,303	59,475	64,216	306,540
Budgeted Wholesale Sales	105,149	103,525	75,708	90,618	375,000
Retail Sales	321,713	201,803	103,617	207,386	834,519
Budgeted Retail Sales	275,814	151,328	110,404	237,455	775,000
Total Sales	420,260	286,106	163,092	271,602	1,141,059
Total Budgeted Sales	380,963	254,853	186,112	328,073	1,150,000
Total Sales Variance	39,297	31,253	(23,020)	(56,471)	(8,941)
FINANCIAL RESULTS					
Wholesale Revenues	$1,857,772	$1,068,012	$812,279	$2,092,720	$5,830,782
Retail Revenues	$2,287,011	$1,345,303	$946,742	$1,553,524	$6,132,580
Other Revenues	$0	$0	$3,696	($98,035)	($94,339)
Total Water Revenues.	$4,144,783	$2,413,315	$1,762,717	$3,548,209	$11,869,023
Water Production Operating Expenses	$856,985	$1,130,397	$730,881	$1,649,584	$4,367,847
Water Distribution Operating Expenses	$1,779,676	$1,269,249	$975,862	$1,748,522	$5,773,309
Total Water Operating Expenses	$2,636,661	$2,399,647	$1,706,743	$3,398,106	$10,141,157
Net Water Operating Revenue	$1,508,122	$13,668	$55,974	$150,103	$1,727,866
Water Production Capital	$0	$44,955	$16,603	$955,408	$1,016,966
Water Distribution Capital	$4,989	$8,750	$4,293	$495,027	$513,058
Total Capital Expenditures	$4,989	$53,705	$20,895	$1,450,434	$1,530,024
Net Water Revenues	$1,503,132	($40,037)	$35,078	($1,300,332)	$197,842
BUDGETED					
Budgeted Operating Income(Loss)					851,928
Budgeted Capital Expenditures					(9,806,926)
Budgeted Grant/Loan/GF Transfers					6,831,061
Budgeted Net Income(Loss)					(2,123,937)
Budget Adjustments*					(5,339,788)
Adj. Budgeted Net Income (Loss)					(7,463,725)

NOTE : *Includes carryforward project amounts, encumbrance rollovers and board/council approved budget adjustments.

WASTEWATER OPERATIONS

Financial Status - Unaudited // FY2021

Fiscal Year: July 01 through June 30, 2021

	QTR 1	QTR 2	QTR 3	QTR 4	TOTAL
UNIT SALES: THOUSAND GALLONS					
Total Treated	103,361	99,217	95,679	93,743	392,000
Budgeted Treated	114,658	109,783	105,181	100,377	430,000
Variance	(11,297)	(10,566)	(9,502)	(6,634)	(38,000)
FINANCIAL RESULTS					
Sewer Revenues	$1,669,590	$1,507,833	$1,538,192	$2,102,976	$6,818,591
Sewer Miscellaneous Revenues	($133,093)	($33,241)	$0	($219,216)	($385,549)
Sewer Operating Expenses	$685,355	$1,072,871	$832,832	$1,181,550	$3,772,608
Net Sewer Operating Revenue	$851,142	$401,720	$705,361	$702,210	$2,660,433
Sewer Capital Expenditures	$0	$172,000	$352,271	$77,325	$601,596
Net Sewer Revenue	$851,142	$229,720	$353,090	$624,885	$2,058,837
BUDGETED					
Budgeted Operating Income(Loss)					1,721,316
Budgeted Capital Expenditures					(14,850,856)
Budgeted Grant/Loan/GF Transfers					14,800,856
Budgeted Net Income(Loss)					1,671,316
Budget Adjustments*					(2,627,326)
Adj. Budgeted Net Income (Loss)					(956,010)

NOTE : *Includes carryforward project amounts, encumbrance rollovers and board/council approved budget adjustments.

ELECTRIC CONSUMPTION

Financial Status - Unaudited // FY2021

	QTR 1	QTR 2	QTR 3	QTR 4	TOTAL
REVENUES					
Residential	2,081,076	1,763,700	2,052,461	1,079,444	6,976,680
Private Area Lights	3,673	3,339	3,580	2,417	13,009
Commercial	1,141,733	956,461	1,025,965	649,479	3,773,638
Municipal	327,860	468,917	290,957	262,633	1,350,366
Water Production	116,624	141,996	79,985	138,038	476,644
Educational	106,214	99,238	122,857	89,560	417,869
Misc./Backcharges	121,544	223,834	148,210	22,738	516,327
TOTAL	$3,898,724	$3,657,484	$3,724,016	$2,244,310	$13,524,534
SALES: KILOWATT HOURS					
Residential	15,382,994	14,749,504	16,724,500	12,969,877	59,826,875
Private Area Lights	9,354	9,354	9,354	9,354	37,416
Commercial	9,679,167	8,167,154	8,608,849	7,833,248	34,288,418
Municipal	2,582,273	2,217,979	2,227,631	2,088,725	9,116,608
Water Production	1,805,485	1,758,165	1,472,323	2,093,323	7,129,296
Educational	832,742	1,077,699	991,210	1,114,293	4,015,944
TOTAL	30,292,015	27,979,855	30,033,867	26,108,820	114,414,557
BILLED LOCATIONS: AVERAGE					
Residential	7,866	8,029	7,769	7,951	7,904
Commercial	637	623	625	620	626
Municipal	164	155	159	157	159
Educational	54	59	54	58	56
TOTAL	8,721	8,867	8,608	8,786	8,745
REVENUE/KILOWATT HOUR: AVERAGE					
Residential	$0.1353	$0.1196	$0.1227	$0.0832	$0.1166
Private Area Lights	$0.3926	$0.3570	$0.3827	$0.2584	$0.3477
Commercial	$0.1180	$0.1171	$0.1192	$0.0829	$0.1101
Municipal	$0.1270	$0.2114	$0.1306	$0.1257	$0.1481
Water Production	$0.0646	$0.0808	$0.0543	$0.0659	$0.0669
Educational	$0.1275	$0.0921	$0.1239	$0.0804	$0.1041
AVERAGE	$0.1247	$0.1227	$0.1191	$0.0851	$0.1137
LOSS CALCULATION					
Power Received (kWh)	29,329,795	29,346,869	30,502,609	27,545,331	116,724,605
Photovoltaic Power Received (kWh)	203,592	155,841	144,533	149,886	653,852
Qtrly Losses (Gains)	(758,628)	1,522,855	613,275	1,586,397	2,963,900
% Qtrly Losses (Gains)	(2.57%)	5.16%	2.00%	5.73%	2.53%
YTD CUMM LOSSES (GAINS)	(2.57%)	1.29%	1.54%	2.53%	2.53%

NATURAL GAS CONSUMPTION

Financial Status - Unaudited // FY2021

	QTR 1	QTR 2	QTR 3	QTR 4	TOTAL
REVENUES					
Residential	395,984	916,866	1,576,924	802,881	3,692,655
Commercial	99,745	233,637	365,379	240,694	939,455
Municipal	14,586	45,221	70,920	50,657	181,384
Water Production	140	156	1,129	278	1,703
Educational	5,270	25,252	59,951	26,512	116,984
Misc./Backcharges	23,696	13,350	(159)	21,330	58,217
TOTAL	$539,420	1,234,482	2,074,144	1,142,352	$4,990,398
SALES: THERMS					
Residential	387,601	1,590,985	3,120,620	1,351,671	6,450,877
Commercial	149,597	331,197	597,390	264,552	1,342,736
Municipal	29,217	91,177	161,464	77,478	359,336
Water Production	889	646	1,799	988	4,322
Educational	4,344	55,405	110,580	56,238	226,567
TOTAL	571,648	2,069,410	3,991,853	1,750,927	8,383,838
BILLED LOCATIONS: AVERAGE					
Residential	7,047	7,254	7,059	7,272	7,158
Commercial	365	363	361	364	363
Municipal	44	43	43	43	43
Educational	25	25	25	22	24
TOTAL	7,482	7,685	7,488	7,701	7,589
REVENUE/THERM: AVERAGE					
Residential	$1.0216	$0.5763	$0.5053	$0.5940	$0.5724
Commercial	$0.6668	$0.7054	$0.6116	$0.9098	$0.6997
Municipal	$0.4992	$0.4960	$0.4392	$0.6538	$0.5048
Water Production	$0.1575	$0.2410	$0.6276	$0.2817	$0.3941
Educational	$1.2131	$0.4558	$0.5422	$0.4714	$0.5163
AVERAGE	$0.9022	$0.5901	$0.5196	$0.6402	$0.5883
LOSS CALCULATION					
Gas Received (therms)	555,690	1,683,165	4,276,820	1,953,930	8,469,605
Qtrly Losses (Gains)	(15,958)	(386,245)	284,967	203,003	85,767
% Qtrly Losses (Gains)	(2.87%)	(22.95%)	6.66%	10.39%	1.01%
YTD CUMM LOSSES (GAINS)	(2.87%)	(17.96%)	(1.80%)	1.01%	1.01%

WATER CONSUMPTION

Financial Status - Unaudited // FY2021

	QTR 1	QTR 2	QTR 3	QTR 4	TOTAL
REVENUES					
Residential	1,876,868	1,093,075	795,448	986,352	4,751,742
Commercial	180,120	129,006	105,864	97,780	512,770
Municipal	125,066	69,587	25,364	81,914	301,932
Educational	80,724	45,392	18,500	50,654	195,270
Misc./Backcharges	24,233	8,242	27,484	15,847	75,806
TOTAL	$2,287,011	$1,345,303	$972,660	$1,232,546	$5,837,520
SALES: THOUSAND GALLONS					
Residential	259,528	164,919	86,599	164,196	675,242
Commercial	30,664	17,893	12,699	17,547	78,803
Municipal	19,902	11,121	3,277	13,392	47,692
Educational	11,619	7,870	1,042	12,251	32,781
TOTAL	321,713	201,803	103,617	207,386	834,519
BILLED LOCATIONS: AVERAGE					
Residential	6,558	6,763	6,560	6,776	6,664
Commercial	271	270	291	292	281
Municipal	85	85	77	84	83
Educational	22	25	18	24	22
TOTAL	6,936	7,142	6,945	7,176	7,050
REVENUE/THOUSAND GALLONS: AVERAGE					
Residential	$7.2318	$6.6279	$9.1854	$6.0072	$7.0371
Commercial	$5.8739	$7.2100	$8.3365	$5.5724	$6.5070
Municipal	$6.2840	$6.2573	$7.7390	$6.1169	$6.3309
Educational	$6.9479	$5.7681	$17.7576	$4.1346	$5.9568
AVERAGE	$7.0335	$6.6256	$9.1218	$5.8668	$6.9042
LOSS CALCULATION					
Water Received (kGal)	366,219	180,371	150,158	297,112	993,860
Qtrly Losses (Gains)	44,506	(21,432)	46,541	89,726	159,341
% Qtrly Losses (Gains)	12.15%	(11.88%)	30.99%	30.20%	16.03%
YTD CUMM LOSSES (GAINS)	12.15%	4.22%	9.99%	16.03%	16.03%

WASTEWATER CONSUMPTION

Financial Status - Unaudited // FY2021

	QTR 1	QTR 2	QTR 3	QTR 4	TOTAL
REVENUES					
All Retail	$1,534,347	1,474,592	1,546,600	1,547,152	6,102,691
Municipal/Effluent*	133,093	33,241	0.0	78,452.7	244,786
Misc./Backcharges	2,150	-	-	(798)	1,352
TOTAL	$1,669,590	$1,507,833	$1,546,600	$1,624,806	$6,348,828
TREATED: THOUSAND GALLONS					
Los Alamos	72,802	70,461	69,123	67,355	279,741
White Rock	30,559	28,756	26,556	26,388	112,259
TOTAL	103,361	99,217	95,679	93,743	392,000
REVENUE/TREATED	$16.13	$15.20	$16.16	$17.34	$16.19

NOTE : * Effluent revenue is reported on the financial statements under Water Production

QUARTERLY PERFORMANCE REPORT

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