LOS ALAMOS

BOARD OF PUBLIC UTILITIES
ADDITIONAL MEETING DOCUMENTS

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

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

MEETING DATE	11/15/2017
AGENDA ITEM	4.G.2 Review of the Department of Public Utilities Quarterly Report
DOCUMENT TITLE(S)	Quarterly Report
FROM	Julie Williams-Hill
NEW OR REVISED? Is this a revision that is different from what was in the agenda packet or is it something entirely new?	New
RECOMMENDED ACTION If you have a new or revised recommended motion for the Board, enter it here.	**N/A**
ADDITIONAL INFORMATION Please VERY BRIEFLY explain the purpose of this information or document.	The Quarterly Report was not yet ready at the time of agenda publication.

LOS ALAMOS
Department of Public Utilities

Quarterly Performance

QR 01/FY 18

Issued Nov. 2017

1000 Central Avenue, Suite 130, Los Alamos, NM | P 505 662 8333 | CustomerCare@lacnm.us | www.losalamosnm.us

Jordan Garcia presents the findings in the Integrated Resource Plan at the July 12, 2017 public meeting in White Rock.

CONTENTS

Timothy A. Glasco
Utilities Manager

MANAGER STATEMENT

QTR 1// 2018

Over the past year, the Board of Public Utilities had numerous discussions concerning the need for capital spending in the water and wastewater utilities. A new wastewater treatment plant is needed in White Rock and numerous old water lines need replacement. The funds needed to accomplish these things were not available in either utility without increased rates. A series of increases in the water fund were proposed, and another, small series of wastewater rate increases were also proposed. In accordance with this planning, water and wastewater rate ordinances containing 8-percent increases for each utility were approved by Council on August 8th. These increases, together with additional, smaller increases proposed for the next couple of years, should put both utilities on the path to long-term, sustained financial viability.

We are drawing closer to a decision point on the County's participation in the next-generation nuclear Small Modular Reactor (SMR) project (called the Carbon Free Power Project) through Utah Associated Municipal Power Systems (UAMPS). As information becomes available DPU will begin to educate the community. On September 12, DPU staff traveled to Salt Lake City with Board of Public Utilities members Kathleen Taylor and Carrie Walker and Councilor Christine Chandler for an informational meeting on the CFPP. Representatives from UAMPS, the Department of Energy Office of Nuclear Energy, NuScale, and others were on hand to discuss the schedule, technology and potential for financial assistance to members of the project. The decision point on the next phase of the project will be in approximately February or March of 2018.

When the Smart House was constructed as part of the U.S.-Japan Demonstration Smart Grid project, the Arts in Public Places Board (APPB) recommended and the council approved the purchase of original Japanese-themed art to include in the home. After decommissioning the Smart House, the art work was removed and placed into storage. Recently, the APPB remodeled the second-floor stair landing at the Municipal Building. The Smart House inspired stair landing will be the new permanent display for the art. A dedication ceremony was held on October 3rd.

On September 19th, while responding to a power outage,

one of our electric linemen came in partial contact with a high-voltage line inside a transformer. The lineman sustained burns on his hands and legs, but fortunately no long-term injuries. A post-accident investigation was conducted and corrective actions were taken to ensure this never happens again. All DPU employees were cautioned to look out for each other, and to avoid becoming complacent about safety, even when performing tasks that have become routine.

Our hydroelectric generating facilities at Abiquiu and El Vado both produced good news in the first quarter of this fiscal year. Abiquiu was off-line for the past two years due to leaks in the air vent shafts. The solution was to install new valves on the vent shafts to allow them to be pressurized, which would in turn allow us to generate electricity. While the valve installation was completed in March of 2017, each valve had problems with leakage. We dewatered the plant and adjusted the travel on the automatic valves to bring the Abiquiu plant back on-line. The plant is now generating power again.

After being out of service for almost three years, repairs to the El Vado hydroelectric plant were completed in May of 2016. However, excessive leaks around the turbine generator water seal prevented the unit's return to service. After a year of negotiation with the contractor JR Merritt, a viable solution was worked out. A new seal from the original turbine manufacturer was installed. After sequential load testing of the entire generator assembly, the new seal performed flawlessly and the El Vado hydroelectric plant began generating power again on July 19th.

After sequential load testing of the entire generator assembly ... the El Vado hydroelectric plant began generating power again on July 19th.

As part of the implementation of recommendations from the employee satisfaction focus group, meetings were held with each division to discuss the plans going forward. The final meetings were held in July. Items such as revised communication methods, focus on general work quality, civility between workers and work groups, and pay equity were discussed. Another employee satisfaction survey is planned for late fiscal year 18.

Nominations were collected from DPU divisions, and the selected Safety Employee of the Quarter for the 1st quarter of FY18 was Electric Distribution Lineman Supervisor Eric Sanchez. Eric was nominated by Deputy Utilities Manager Rafael De la Torre. One of the principal duties of Mr. Sanchez' crew is replacement of old live-front transformers with new, safer dead-front units. Since this work is necessarily performed with live current on the system, there is ample opportunity for accidents if strict safety procedures are not followed. Over the past several years, Eric's crew has replaced over 30 live-front transformers as well as several primary switches, all without incident and without terminating power to our customers while the work is performed.

Eric's manager noted that this work ultimately makes the overall system considerably safer for future workers by removing dangerous live-front gear. As a crew supervisor, Mr. Sanchez ensures that his crew observes all personal protective equipment requirements, tail-gates before every job, and watches out for each other during all phases of this sometimes very hazardous work. Congratulations to Eric Sanchez on this well deserved honor.

Previous page: The Arts in Public Places Board remodeled the second-floor landing in the Municipal Building as the new permanent display for the Smart House art.

This page: Jordan Garcia, Steve Cummins, and Tim Glasco present the Integrated Resource Plan to citizens at the July 12th public meeting in White Rock.

// BACKGROUND & PURPOSE //

DEPARTMENT OF PUBLIC UTILITIES

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.

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.

VALUES - We value our:

- ***Customers*** by being service-oriented and fiscally responsible;
- ***Employees and Partnerships*** by being a safe, ethical and professional organization that encourages continuous learning;
- ***Natural Resources*** through innovative and progressive solutions; and
- ***Community*** by being communicative, organized and transparent.

// SAFETY EMPLOYEE OF 1ST QTR FY18 //

ERIC SANCHEZ
ELECTRIC DISTRIBUTION
LINEMAN SUPERVISOR

Safety Employee of the Quarter program was developed by the Utilities Safety Committee to reward those who most clearly and effectively demonstrate DPU's Safety Culture Vision.

FOCUS, GOALS & OBJECTIVES

Operations and Performance: Provide safe and reliable utility services.

- Deliver safe water efficiently & reliably,
- Reduce unaccounted for water to less than half the national average by 2030,
- Deliver gas efficiently, safely & reliably,
- Collect & treat sewage efficiently, safely & reliably,
- Reduce sewer overflows per 100 miles of mainline pipe to less than half the national average by 2035,
- Produce & deliver electricity efficiently, safely, & reliably,
- Implement & maintain efficient, safe, secure & reliable business systems,
- Ensure utility controls, mapping systems & processes are accurate, safe & secure,
- Develop a culture of continuous improvement.

Financial Performance: Achieve & maintain excellence in financial performance.

- Utilize revenues to provide a high level of service, keeping rates competitive,
- Conduct cost of service studies for each utility every five years,
- Meet financial plan targets by 2025.

Customers and Community: Be a customer-service oriented organization - communicative, efficient, & transparent.

- Ensure customer service processes & systems are efficient & user-friendly,
- Engage & inform stakeholders on operations that affect the community.

Workforce: Sustain a capable, satisfied, engaged, ethical, safe workforce that is customer focused.

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

Environmental Sustainability: Achieve environmental sustainability.

- Be a carbon neutral electric provider by 2040,
- Promote energy efficiency through targeted conservation programs,
- Reduce per capita per day potable water use by 9% by 2030,
- Improve heating efficiency to reduce gas usage by 3% by 2030,
- Provide class 1A effluent water in White Rock by 2020.

Partnerships: Develop and strengthen partnerships with stakeholders.

- Communicate with stakeholders to identify potential mutually beneficial partnering opportunities,
- Communicate with stakeholders to strengthen existing partnerships.

PAST SAFETY EMPLOYEES OF THE QUARTER

fy16 Qtr4 **Aaron Turner**
Gas, Water & Sewer

fy17 Qtr1 **Estevan Garcia**
Gas, Water & Sewer

fy17 Qtr3 **David Rodriguez**
Gas, Water & Sewer

fy17 Qtr4 **Rick Herrera**
Water Production

SAFETY CULTURE VISION

In 2012, the Board of Public Utilities adopted a safey culture vision.

Its goal is to promote how safety is managed in the workplace by creating a work environment which reflect the attitudes, beliefs, perceptions and values that employees share when it comes to safety.

DPU seeks to create a safety culture where employees practice safety every hour on the job, while no one is watching, cecause empoyees want to and not because employees have to. To create this safety culture, DPU employees believe in:

- **Safety is First**
- **Leading by Example**
- **Establishing and Enforcing a High Standard of Work Performance**
- **Briefing or Tailgating before every job**
- **Making Work and Safety Suggestions.**

Rafael De La Torre
Deputy Utilities Manager

ELECTRIC DISTRIBUTION

QTR 1// 2018

The department is preparing for the winter season and this time of year can get antsy at times. Trees with foliage and an early wet snow fall are ingredients for power outages. The weight of the snow on the leaves and the trees themselves may bend or topple into the power lines causing wide spread power outages. Also, the winter season tends to cause a given amount of underground cable failures as water seeps into the cable insulation causing it to fail. Often, these underground cable failures are due to someone nicking the cable insulation of the wire and not reporting it to the department. Over time, the damaged cable eventually fails. This is the nature of our business and we have learned to prepare. This means our overhead line crew are already patrolling the overhead system looking for potential tree obstructions. Our crews are clearing immediate power line hazards and the on-call tree-trimming contractor works through the remaining tree problems. The department supports tree planting but we recommend customers assess the area and avoid planting new trees beneath overhead power lines. Equally important, customers need to be extremely cautious when digging holes near buried utilities. It is easy to see how these two items may impact the department and neighborhoods down the road.

Our two underground crews replaced 800 feet of primary underground cable along Connie Street in White Rock. This segment had been targeted for replacement because of a history of past failures. We do apologize to our customers along Connie for past power disruptions. As mentioned before, the department will continue to target and replace bad segments of the distribution grid as necessary in accordance to the department's Electric Reliability Plan (available on the county website: https://losalamosnm.us/common/pages/DisplayFile.aspx?itemId=7151948).

The Los Alamos Switchgear Substation (LASS) project is progressing well as we continue with the duct bank construction. We have coordinated with stakeholders to complete major hurdles such as the Los Alamos National Laboratory to trench across East Jemez Road and the Los Alamos Medical Center to trench behind the hospital. Up next, we will intercept an existing duct bank at each side of Los Alamos Canyon and tie into the existing manhole

system near Trinity, next to the Otowi Bridge. The LASS metal-enclosed substation itself is under construction in Fontana, California and is progressing well. There have been minor delivery disruptions due to the recent hurricanes affecting Texas, Florida, and Puerto Rico. During these emergencies, the electrical supply industry prioritizes material deliveries to those areas which need it most. We are still anticipating delivery before the end of the year but the schedule could slip; however, the short delay will not impact the overall project schedule.

This past quarter, the department contracted with Davey Trees to perform a pole attachment and safety audit which is long overdue. The contractor will be taking pictures of all pole attachments, pole safety issues, and other potential hazards to ensure that those entities attached to utility poles don't impact the electric reliability. We have asked for customer cooperation during this project because the contractor will physically inspect each pole and many poles are on easements in customer backyards. Assurances were made by the contractor that his employees will carry identification and will knock on front doors before entering onto customer's premises to access the utility pole.

As we move into the winter season, rest assured that our linemen are prepared and up to the task. If you do happen to experience a power outage in the middle of a cold winter night, please bear with us but feel confident that our linemen will be working to restore power as safely and quickly as possible.

Our two underground crews replaced 800 feet of primary underground cable along Connie Street in White Rock.

Previous page and this page: Electric lines installed near the hospital to be connected to the new Los Alamos switchgear substation.

Electric primary lines are installed for the new Los Alamos Switchgear Substation by the hospital.

// PERFORMANCE //

SYSTEM AVERAGE INTERRUPTION DURATION INDEX (SAIDI)

Improving system reliability and reducing outage times became a primary focus for the Los Alamos Department of Public Utilities (DPU) in 2008. The system average interruption duration index (SAIDI) had risen to an all-time high, exceeding 300 minutes as the annual average time that a DPU customer could expect to be without power. Accordingly, DPU set a goal in 2008 to reduce its SAIDI to below 60 minutes (including major events). At the end of the 1st quarter the SAIDI dropped 35 minutes to 27 minutes, well below DPU's goal. As a point of reference, in 2012 the mean SAIDI was 143.1 minutes without major events and 372.2 minutes with major events for 195 utilities across the nation per an August 2015 report issued by the Lawrence Berkeley National Laboratory, "Assessing Changes in the Reliability of the U.S. Electric Power System." https://emp.lbl.gov/sites/all/files/lbnl-188741.pdf#page=44.

BY THE END OF THE 1ST QUARTER SEPT. 2017, DPU'S SAIDI WAS 27 MINUTES

DISTRIBUTED GENERATION

Unlike conventional power stations that are centralized and require transmission lines, distributed generation resources are decentralized and close to the load, such as rooftop solar systems. In Los Alamos, several commercial and residential customers have opted to install small solar or photovolataic distributed generations systems.

NEW DISTRIBUTED GENERATION

An additional 53kW of distributed generation were added by residential customers on to DPU's electric distribution grid.

53kW

TOTAL DISTRIBUTED GENERATION

As of the 1st quarter, distributed generation resources totaled 588 kW. Residential systems totaled 426 kW and commercial systems totaled 162 kW.

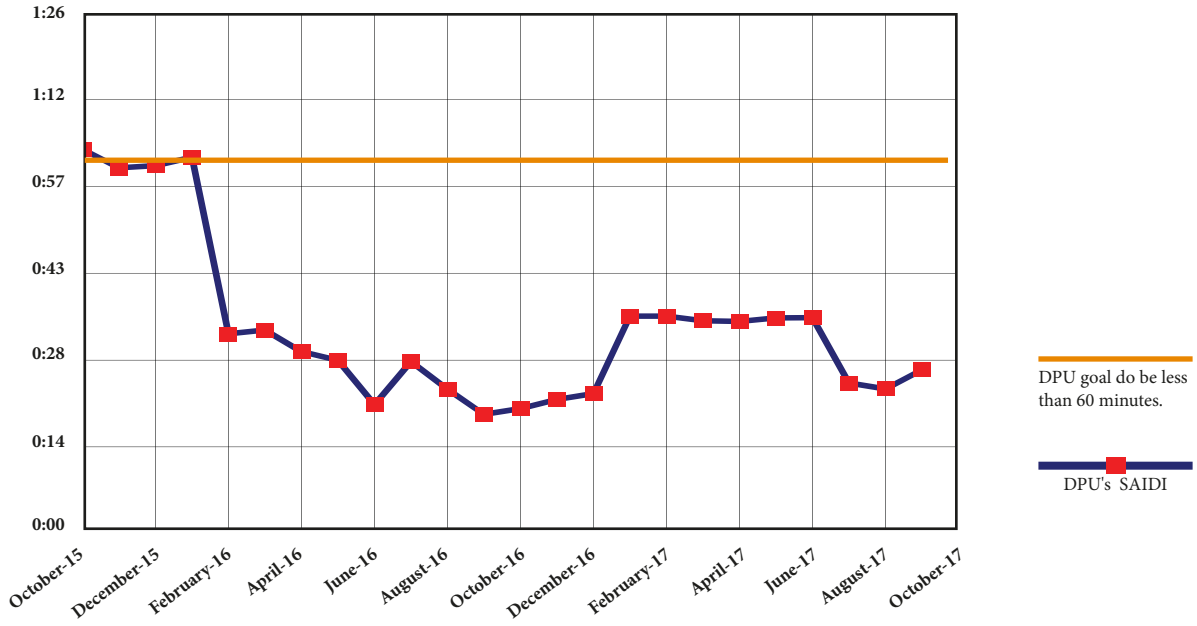
588kW

PENDING DISTRIBUTED GENERATION

Currently 12 residential customers are in the process of adding 68kW of distributed generation on to DPU's electric grid.

68kW

SYSTEM AVERAGE INTERRUPTION DURATION INDEX



Jack Richardson
Deputy Utilities Manager

GAS, WATER, AND SEWER

QTR 1// 2018

Major restructuring of the Department of Public Utilities' Geographic Information System (GIS) data sets for the Gas, Water, and Sewer (GWS) division continued this quarter. The new GIS schema is being developed. Close coordination with County GIS, Finance and the Planning Resource Integration Systems Management (PRISM) project staff continues to ensure that the final project deliverables are consistent with the needs of the PRISM system software as well as the needs of DPU for enhanced asset management. A functional exercise, required by the State, was developed and executed for the Los Alamos Canyon Dam Emergency Action Plan. This exercise - titled Allied Pool - included many County personnel (Los Alamos Fire and Police Departments, County Emergency Management, Public Relations, Parks, Public Works, and Information Management) and was the first County only emergency functional exercise conducted in many years. The exercise's success is due to the excellent efforts of Katelyn Mahoney and Julie Williams-Hill as well as tremendous coordination and support from Los Alamos County Emergency Services Commander Beverley Simpson, Los Alamos Fire Department Division Chief Raymond Garcia, and the consultant Ascenttra.

Gas, Water, Sewer (GWS)

The sewer crew is excited to be using the new video camera. Inaccessible, major trunk lines in the bottom of the canyons are now being inspected. The water meter change-out program has relocated to Barranca Mesa and is approximately 25 percent complete. In a cooperative effort between Los Alamos Fire Department (LAFD) and GWS personnel, the policies and procedures for emergency response to natural gas and carbon monoxide complaints have been updated to comply with federal regulations requiring GWS to be the lead investigative organization for any natural gas system facilities while LAFD remains the lead organization for life safety and health issues. Congratulations to Andrew Gallegos, Andre Lebron, Andres Manzanares and Justin Lujan for their promotions.

Water Production

The new deep well replacement pump for Pajarito Well 4 was successfully tested and ran well throughout the quarter. It is now shut down for the winter. Two new equipment units that generate chlorine for disinfection in the water production system were ordered. Manufacturing and possible installation of the units will be completed next quarter. Roof reconstruction was completed for five booster stations. Three major pump motors were rebuilt. The exterior of the north fill booster station was refurbished and repainted.

Wastewater Treatment

Discussions at the Board of Public Utilities and County Council levels have concluded with the decision to schedule the White Rock wastewater treatment plant replacement project for design in FY 2019 and construction to start in FY 2020. This decision will minimize the interim capital improvement project expenditures needed to keep the existing White Rock WWTP operating until the replacement plant can be brought on line. Recirculation pumps for the White Rock WWTP were ordered this quarter and should be installed to provide adequate service until the new White Rock WWTP is up and running sometime in 2021.

Discussions at the Board of Public Utilities and County Council levels have concluded with the decision to schedule the White Rock wastewater treatment plant replacement project for design in FY 2019 and construction to start in FY 2021.

Meter Reading

The Automated Metering Infrastructure (AMI) contract negotiation is nearing completion. The meter read supervisor has been assisting Engineering in locating meters shown on old maps but not currently active in the system. The other meters were either found to have been removed or were disconnected and not being used. Congratulations to Terry Martinez. We selected Terry, one of our two existing limited term employees working on the water meter replacement program, to become a permanent full-time employee in the meter reading program.

Primary Key Organizational Performance Measures (PKOPM)

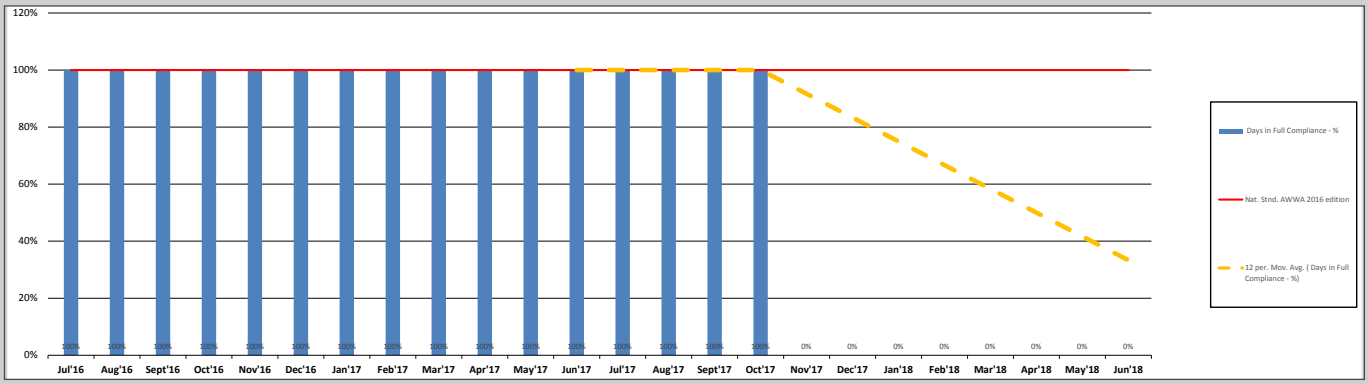
On the following two pages are initial submittals into the Quarterly Report of the Primary Key Organizational Performance Measures (PKOPM) for Water Production. These six performance measures were selected because they indicate performance in the multiple areas being assessed by DPU: Safety, Efficiency, Reliability, and Sustainability. Future Quarterly Reports will introduce additional PKOPMs for the other five GWS divisions: NP Water, Water Distribution, Wastewater Collection, Wastewater Treatment & Gas Distribution. Readability issues will be refined as future Quarterly Report data is developed and published.

Previous Page: Water production crews view various stages of damage to the Los Alamos Canyon dam as part of the function excercise - "Allied Pool."

This page: Superintendent Sammy Maestas demonstrates gas regulator valve training for the crews of the gas, water and sewer division.

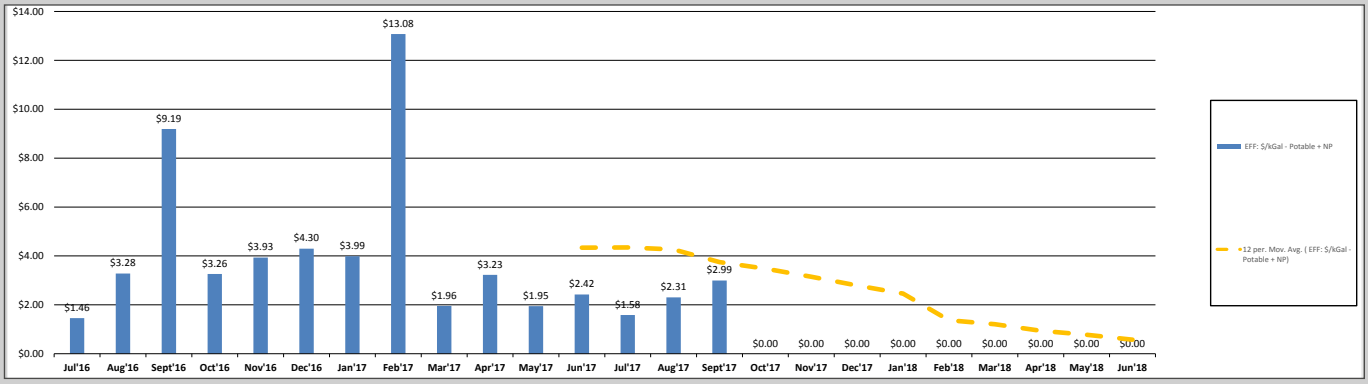
// PERFORMANCE //

Safe: Regulatory Compliance - Potable System



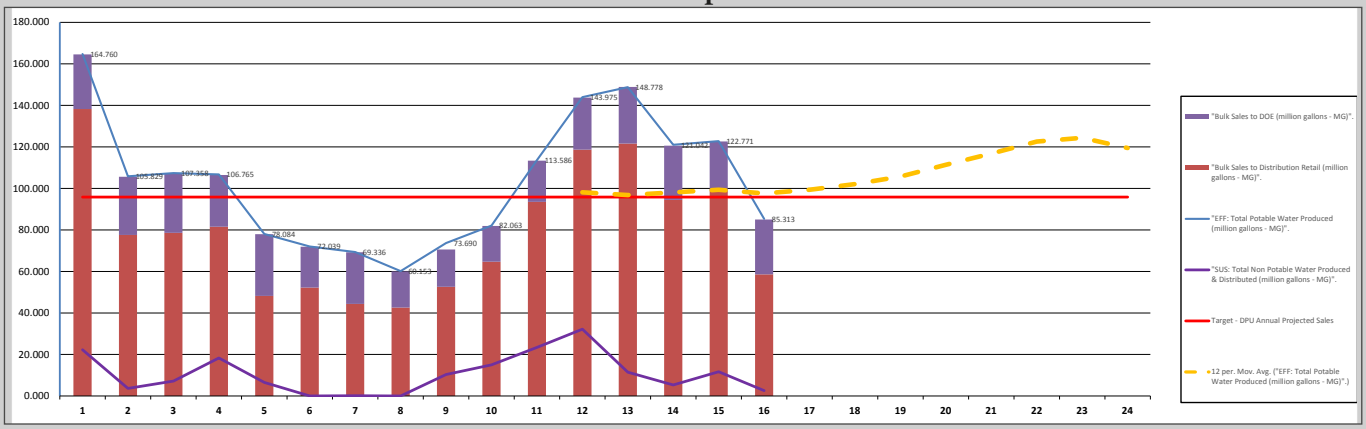
Month	Jul'16	Aug'16	Sept'16	Oct'16	Nov'16	Dec'16	Jan'17	Feb'17	Mar'17	Apr'17	May'17	Jun'17	Jul'17	Aug'17	Sept'17	Oct'17	Nov'17	Dec'17	Jan'18	Feb'18	Mar'18	Apr'18	May'18	Jun'18
Target - AWWA 2016 edition	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Efficient: Operation & Maintenance Expenditures/kGal - Potable & Nonpotable Water Produces & Distrubted



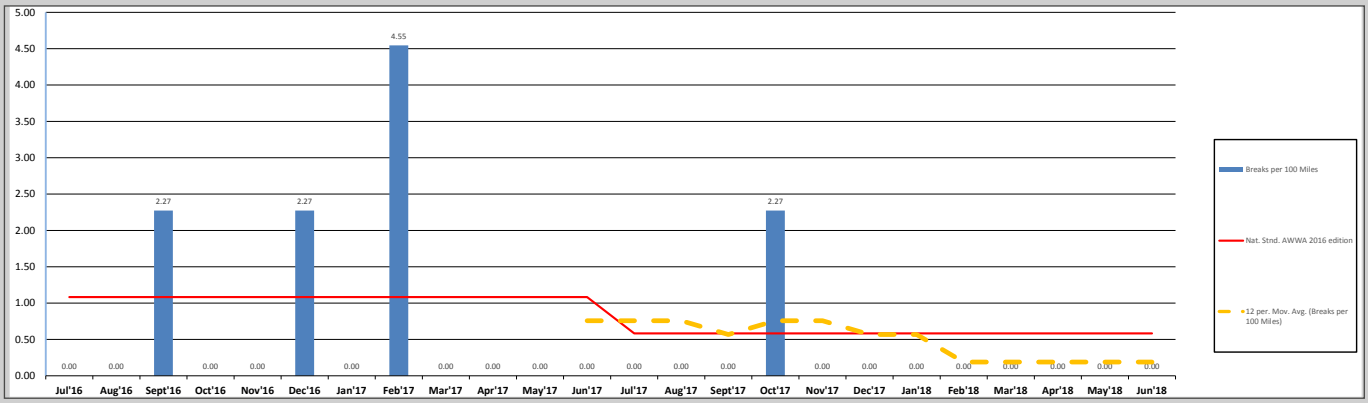
Month	Jul'16	Aug'16	Sept'16	Oct'16	Nov'16	Dec'16	Jan'17	Feb'17	Mar'17	Apr'17	May'17	Jun'17	Jul'17	Aug'17	Sept'17	Oct'17	Nov'17	Dec'17	Jan'18	Feb'18	Mar'18	Apr'18	May'18	Jun'18
Target - none																								

Efficient: Potable Water Produced & Nonpotable Water Produces & Distrubted



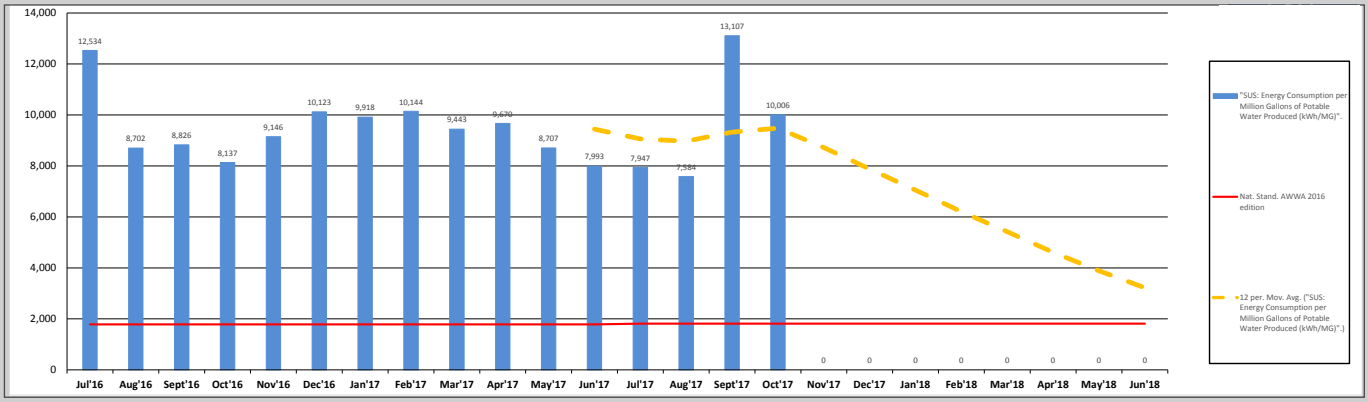
Month	Jul'16	Aug'16	Sept'16	Oct'16	Nov'16	Dec'16	Jan'17	Feb'17	Mar'17	Apr'17	May'17	Jun'17	Jul'17	Aug'17	Sept'17	Oct'17	Nov'17	Dec'17	Jan'18	Feb'18	Mar'18	Apr'18	May'18	Jun'18
Target - DPU Annual Projected Sales 1,150 MG per Year	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833	95.833

Reliable: Water Transmission Main Break/100 miles of Pipeline - Potable System



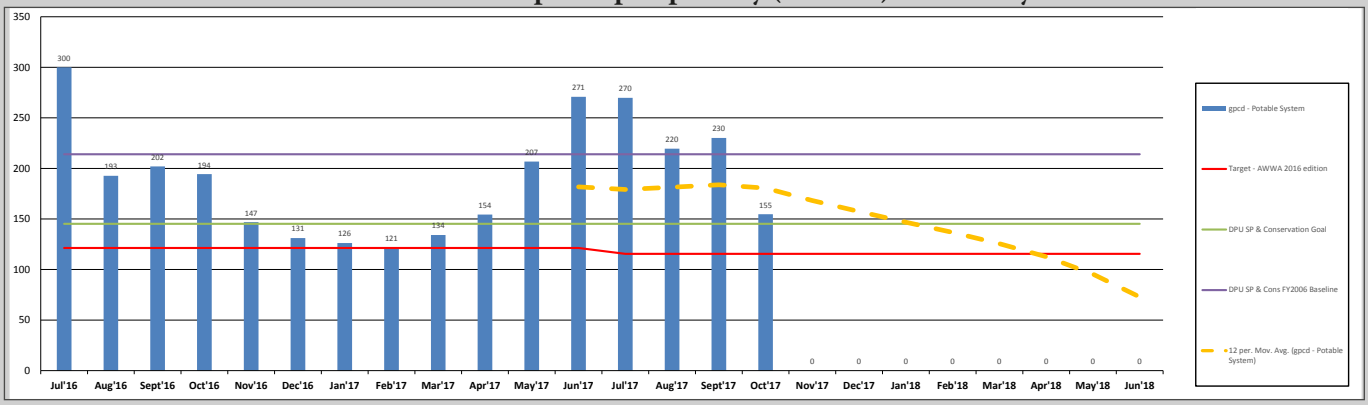
Month	Jul'16	Aug'16	Sept'16	Oct'16	Nov'16	Dec'16	Jan'17	Feb'17	Mar'17	Apr'17	May'17	Jun'17	Jul'17	Aug'17	Sept'17	Oct'17	Nov'17	Dec'17	Jan'18	Feb'18	Mar'18	Apr'18	May'18	Jun'18
Target - AWWA 2016 edition	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58

Sustainable: Energy Consumption/Million Gallons Produced - Potable System (kWh/MG)



Month	Jul'16	Aug'16	Sept'16	Oct'16	Nov'16	Dec'16	Jan'17	Feb'17	Mar'17	Apr'17	May'17	Jun'17	Jul'17	Aug'17	Sept'17	Oct'17	Nov'17	Dec'17	Jan'18	Feb'18	Mar'18	Apr'18	May'18	Jun'18
Target - AWWA 2016 edition	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,813	1,813	1,813	1,813	1,813	1,813	1,813	1,813	1,813	1,813	1,813	1,813

Sustainable: Gallons per Capita per Day (GPCPD)- Potable System



Month	Jul'16	Aug'16	Sept'16	Oct'16	Nov'16	Dec'16	Jan'17	Feb'17	Mar'17	Apr'17	May'17	Jun'17	Jul'17	Aug'17	Sept'17	Oct'17	Nov'17	Dec'17	Jan'18	Feb'18	Mar'18	Apr'18	May'18	Jun'18
Target - AWWA 2016 edition	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	121.3	115.5	115.5	115.5	115.5	115.5	115.5	115.5	115.5	115.5	115.5	115.5	115.5
DPU SP & Conservation Goal Reduce GPCD by 12% by FY 2025	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2
DPU SP & Cons FY2006 Baseline FY 2006	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214

James Alarid
Deputy Utilities Manager

ENGINEERING DIVISION

QTR 1// 2018

Work progressed on drilling a new drinking water well named Otowi Well No. 2. Design of the well and specifications were completed this quarter. Preparation for site work and drilling was ongoing and included securing permits from LANL, a permit from the Office of the State Engineer, personnel training and badging, preparation of the storm water pollution prevention plan and surveying. Site work and drilling are scheduled to begin in November 2017. On October 20, 2017, the pipeline connection to the existing water transmission system was completed in New Mexico State Road 4 (NM-4). The work required that NM-4 be closed. DPU staff did a great job of coordinating the road closure with the many stakeholders which included the Fire Department, LANL Emergency Management, L.A. Transit, New Mexico Department of Transportation, Bandelier National Monument, Police Department, San Ildefonso Pueblo and others to schedule the work at the time that created the least conflicts. I would like to acknowledge the efforts of Julie Williams-Hill, DPU's Public Information officer for going above and beyond to coordinate this work. Construction of the pipeline from the well to NM-4 and construction of the new well house, pumps and electrical gear will begin in the new year.

The new gas, water, sewer and electric infrastructure to serve the new 20th Street subdivision was ongoing throughout the quarter. The new subdivision is a County sponsored economic development initiative to stimulate new commercial development. All new utility work has been completed and the new lots are all equipped with full utility service.

Planning and design began this quarter on installing a new gas pressure regulating station in the Quemazon subdivision. Currently the subdivision is served by a single gas regulating station and by adding a second, DPU will provide more reliable gas service to these customers. A new easement was secured from the Quemazon Homeowners Association and design is nearing completion. Work will be performed by the DPU gas/water/sewer crews in spring 2018.

The new Los Alamos Reservoir replacement non-potable pipeline was bid and awarded this quarter. The final permitting is being secured and work is scheduled to begin in January 2018 when materials are received. This project is funded by a 90% loan / 10% grant received from the New Mexico Water Trust Board. Replacement of this waterline, which has been incapacitated by flooding after the wild fires in the canyon, will re-establish the reservoir as irrigation water supply to Los Alamos.

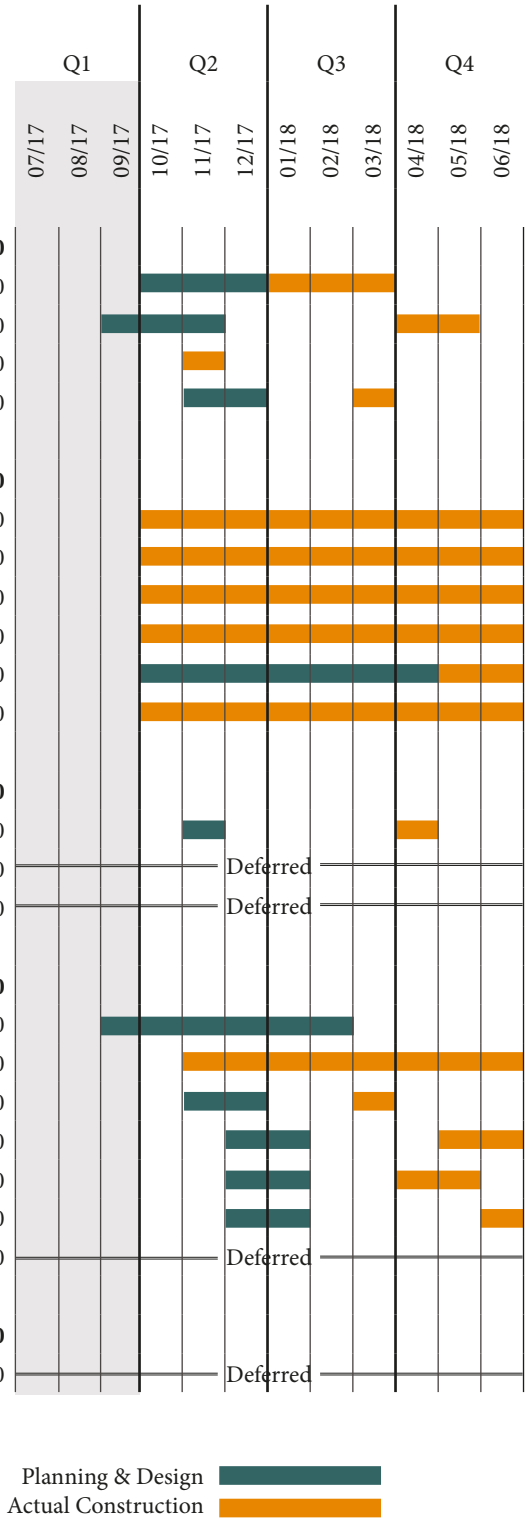
Engineering staff continues to support the Electric Distribution department to complete the new Los Alamos Substation located at Technical Area #3 adjacent to the abandoned landfill. The site work, sub-station foundation and 80% of the duct-bank has been completed. The new substation is scheduled to be delivered in December 2017.

Planning and design began this quarter on installing a new gas pressure regulating station in the Quemazon subdivision

Previous page and this page: Crews trench across New Mexico State Road 4 to install a water line to connect the new Otowi 2 Well to the water supply system.

FY18 CIP Projects

	Budgeted
Electric Production	**$670,000**
Abiquiu - Upgrade Controls	375,000
Abiquiu - Install 3-Ton Jib Crane	140,000
Abiquiu & El Vado - Replace Batteries	130,000
Replace UPS for Electric SCADA	25,000
Electric Distribution	**$1,900,000**
WR - Replace Overhead System (Poles & Cross-arms)	200,000
LA - Replace Overhead System (Poles & Cross-arms)	200,000
WR - Replace Underground Resid. Dist. Segments	250,000
LA - Replace Underground Resid. Dist. Segments	250,000
Replace Circuit Breakers at White Rock Substation	500,000
Install New Feeders for Los Alamos Substation	500,000
Natural Gas Distribution	**$700,000**
Install Alternative PRV in Quemazon	250,000
Improve Enclosures for PRV Stations	200,000
Install Remote Terminal Units	250,000
Water Production	**$5,296,000**
Extend Potable Water to Camp May	2,000,000
Install a New Drinking Water Well (Otowi Well #2)	1,500,000
Replace UPS for Water SCADA	$25,000
Replace Motor Control Center	275,000
Replace Remote Terminal Units	75,000
Replace Automatic Valves	150,000
Increase Non-Potable Water Storage	1,271,000
Sewer Collection & Wastewater Totals	**$50,000**
Rehabilitate Canyon Road Vitrified Clay Crossings	50,000



Electric Production
Upgrade Abiquiu Controls

Install new software and hardware at the Abiquiu hydroelectric plant to integrate the controls of low-flow turbine and the two larger turbines into one process logic controller.

Budget: $375,000
Schedule: RFP issued Oct. 8 2017. Will be complete by April 2018

Electric Production
Install 3-Ton Jib Crane

Install a new 3-ton jib crane on the north deck of the Abiquiu hydroelectric plant to raise and lower the gates to the energy dissipating chambers.

Budget: $140,000
Schedule: Project was bid in July 2017. No responsive bids received. Will be rebid.

Electric Production
Replace Batteries

Replace the battery systems that supply the plant control systems at the Abiquiu and El Vado hydroelectric facilities.

Budget: $130,000
Schedule: Completed Nov. 1, 2018.

Electric and Water Production
Replace Uninterruptible power supply (UPS) for SCADA

Replace the uninterruptible power supply (UPS) for the water and electric supervisory controls and data acquisition system (SCADA) located at Pajarito Cliffs.

Budget: $50,000
Schedule: Request for bids will be issued in Nov. 2017.

Electric Distribution
Replace Prioritized Overhead System

Replace poles, cross-arms, and pole hardware including transformers. 3-phase backbone and areas with the highest number of customers is the priority.

Budget WR: $200,000
Budget LA: $200,000
Schedule: Year round

Electric Distribution
Replace Prioritized Underground Residential Distribution (URD)

Replace portions or segments of URD that have failed three or more times. Replace live-front transformers.

Budget WR: $250,000
Budget LA: $250,000
Schedule: Year round

Electric Distribution
Replace Circuit Breakers at White Rock Substation

Replace the circuit breakers at the White Rock Substation. Additionally, construct a detention area for potential transformer oil leaks (vegetable oil) while replacing breakers.

Budget: $500,000
Schedule: Currently being designed. Construction scheduled for the Spring 2018.

Electric Distribution
Install Los Alamos Substation Feeders

Install 2 new source feeders from the Los Alamos National Laboratory substation into the DPU new Los Alamos Switchgear Substation (LASS). Install 8 outgoing feeders from the LASS to power 4 townsite feeders and 3 LANL feeders.

Budget: Total $500,000
Schedule: Continuation from FY17. Currently being installed.

Gas Distribution
Install Alternative Pressure Regulating Valve in Quemazon

Install a new gas pressure regulating valve (PRV) to allow a back feed (loop feed) into the Quemzaon distrubution system to improve reliability.

Budget: $250,000
Schedule: Design to be complete in Nov. 2017. GWS crew will construct in Spring 2018/

Gas Distribution
Improve Enclosures for Pressure Regulating Valves Stations

Replace enclosures and improve sites for existing gas pressure regulatng valve stations.

Budget: $200,00
Schedule: Deferred to FY2019.

Gas Distribution
Install Remote Terminal Units

Install remote terminal units (RTUs) at various gas pressure regulating valves and other critical locations to interface with the supervisory control and data acquisition (SCADA) system.

Budget: $250,000
Schedule: Deferred to FY2019.

Water Production
Extend Potable Water Supply to Camp May

Extend the potable water supply to improve fire supression and provide water for existing and future developments in the area. Costs will be shared under a private-public partnership between the County and the recreational facility operator.

Budget: $4,000,000 ($2 m Co. general fund/remainder 3rd Party)
Schedule: Design and environmental assessment ongoing.

Water Production
Install a New Drinking Water Well

Design, drill and develop a new drinking water well in Los Alamos Canyon - Otowi Well #2. Design and construct the well house, electric gear and pipeline. Well is scheduled to be online by fall of 2018

Budget: $1,500,000
Schedule: Site work and drilling will begin in Nov. 2017. Pipeline connection in NM4 completed Oct. 2017.

Water Production
Replace Motor Control Center

Replace the Motor Control Center at Pajarito Well #5.

Budget: $275,000
Schedule: Design and construct in spring 2018.

Water Production
Replace Remote Terminal Units

Replace 3 water production radio transmitter units (RTUs) associated with various wells, boosters and water tanks. New RTUs will be phased in earch year through the water system to maintain reliabible communications.

Budget: $75,000
Schedule: Spring 2018.

Water Production
Replace Automatic Valves

Replace automatic valves 9, 10, and 11, used to transfer water efficiently from one section of the potable water system to other sections.

Budget: $150,000
Schedule: Spring 2018

Water Production
Increase Non-Potable Water Storage

Design multiple booster stations, design a second water tank adjacent to the existing Group 12 tank, and add a new tank adjacent to the Bayo Booster Station to capture water during peak periods which is now discharged to the environment.

Budget: $495,000 Design; $776,000 Tank Construction
Schedule: Deferred - water trust board funding not available.

Wastewater Collection
Rehabilitate Canyon Road Vitrified Clay Crossings

Replace and rehabilitate sections of damaged vitrified clay pipe on Canyon road.

Budget: $50,000
Schedule: Deferred to FY2019.

Steve Cummins
Deputy Utilities Manager

POWER SUPPLY

QTR 1// 2018

El Vado Hydroelectric Plant Online

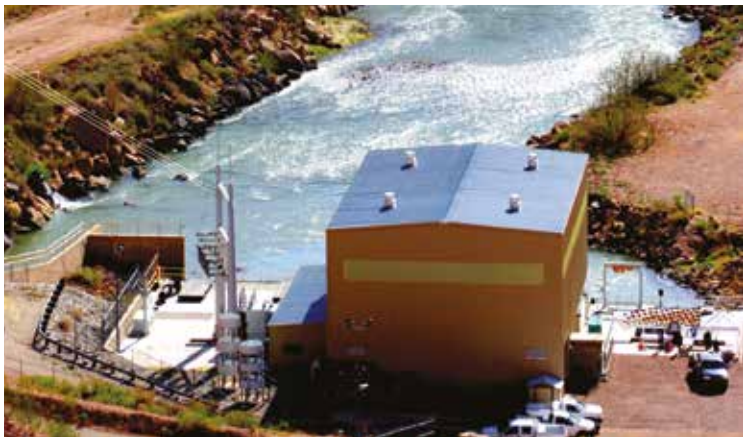
The El Vado hydroelectric plant was placed back into service on July 19, 2017 after being down since April 2014. The plant was taken offline due to extensive carbon and oil film build-up on the generator windings that posed a fire threat. A contractor was hired to perform the generator rewind and turbine refurbishment. A dispute arose when the plant experienced excessive leakage from the shaft seal during commissioning of the refurbished turbine and generator. The dispute over the new shaft seal failure was resolved as follows. Contractor provided all labor and expenses to repair a major oil leak and install a new seal, designed and manufactured by the turbine manufacturer. DPU procured the new seal. As suspected, the new seal of inferior material installed by the contractor had failed. Multiple cracks were found in the seal when removed. The plant has been online since July 19, 2017. Per the terms of the settlement the contractor dismissed its suit against the County claiming additional payment to correct the leaking seal and miscellaneous damages. The work remains under warranty until December 31, 2017. To date there are no problems identified to be addressed by warranty.

Abiquiu Hydroelectric Plant Online

The Abiquiu Hydroelectric plant came back online in March 2017 after being down since July 2015 due to leaks in the air vent shafts located within the bell chamber of the earthen dam. The steel shafts developed corrosion leaks that prevented them from holding water, the condition when the County pressurizes the penstock to the hydroelectric facility to generate electricity. The Corps of Engineers completed the installation of two isolation valves on the two air vent shafts which keep water out of the vent shafts, allowing the hydroelectric plant to be placed back online.

San Juan Generating Station

PNM as the Operator of the San Juan Generating Station hired AECOM to update the Baseline Environmental Study from 2015 as a requirement of the Restructuring Agreement prior to the shutdown of Units 2 and 3 on December 31, 2017. The survey resulted in one new recognized environmental condition from the 2015 BES. An approximately 10-square-foot area of oil stain around



the emergency generator in the switch yard. Clean up of this area commenced immediately.

Southwest Reserve Sharing Group (SRSG)

With the shutdown of Unit 3 at the San Juan Generating Station, the County's hazard sharing with unit 3 will terminate resulting in our single largest contingency of 36 MW's out of unit 4. This increase will result in an increase in our reserve requirements. In addition the cost of reserve capacity on the market continues to rise. DPU staff determined it is no longer economical to be a member of the SRSG. Instead DPU will purchase this service through PNM's tariff. Staff is in the process of exiting SRSG and modifying our Network Integrated Transmission Service Agreement (NITSA) with PNM to acquire this service per PNM's tariff. Staff expects to have a revised NITSA to the Board and Council for approval in December 2017.

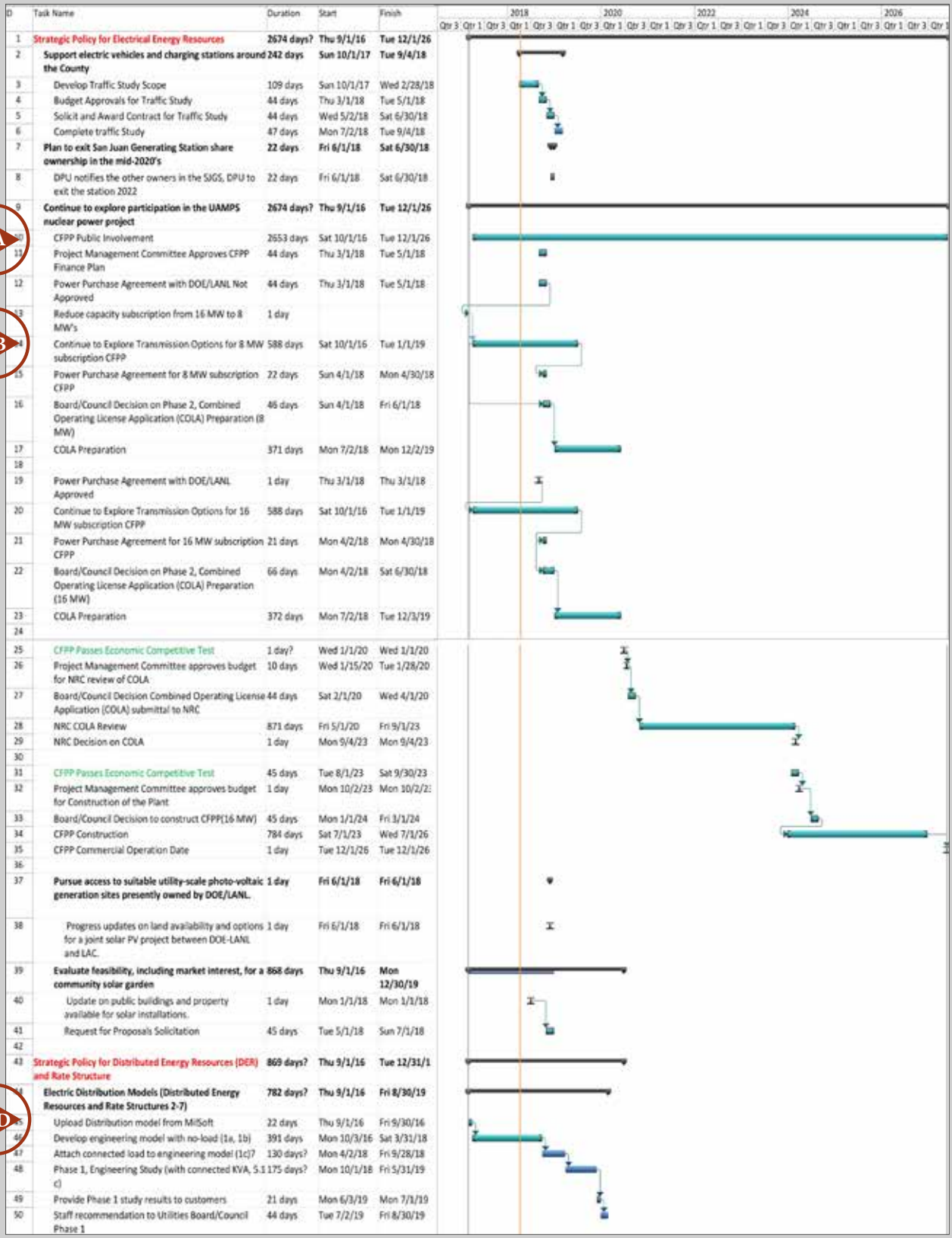
Mountain West Transmission Group

The Mountain West Transmission Group is comprised of Basin Electric Power Cooperative, Black Hills Energy's three electric utilities in Colorado, South Dakota and Wyoming, Colorado Springs Utilities, Platte River Power Authority, Public Service Company of Colorado, Tri-State Generation, and Transmission Association and the Western Area Power Administration. Mountain West is evaluating the potential benefits of participation in an existing Regional Transmission Organization (RTO) with a full market. Some of the advantages of a regional transmission organization are the optimization of transmission and generation assets by consolidating Balancing Authorities, having a centralized unit commitment and generation dispatch and improving renewable integration. RTO's maintain a wide-area view and real-time situational awareness of the entire footprint to monitor and manage the reliability of the system. If the Mountain West Transmission Group successfully joins an RTO, it will result in higher transmission rates for our Laramie River Station power. DPU staff will keep the Board up to date on this issue as it develops.

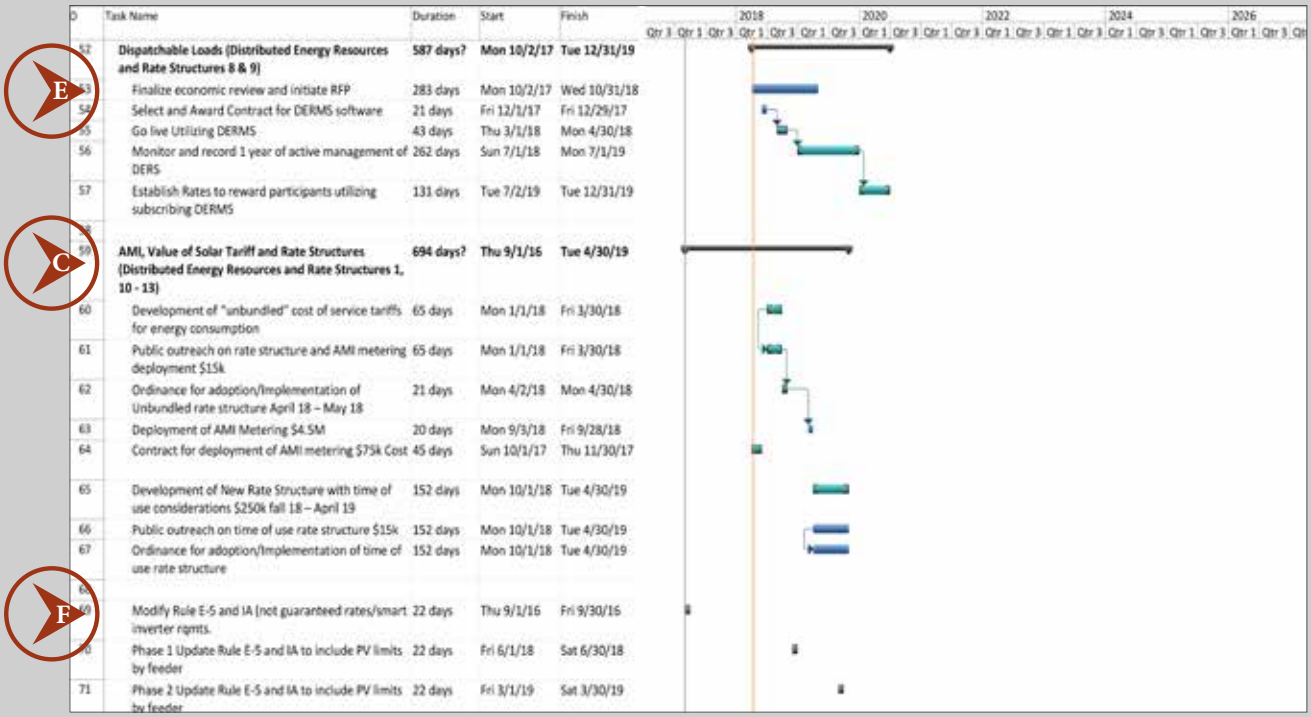
DPU staff determined it is no longer economical to be a member of the Southwest Reserve Sharing Group. Instead DPU will purchase this service through PNM's tariff.

Both Abiquiu (previous page) and El Vado (this page) hydroelectric facilities are generating power.

FUTURE ENERGY RESOURCES



ID	Task Name	Duration	Start	Finish
1	Strategic Policy for Electrical Energy Resources	2674 days?	Thu 9/1/16	Tue 12/1/26
2	**Support electric vehicles and charging stations around the County**	242 days	Sun 10/1/17	Tue 9/4/18
3	Develop Traffic Study Scope	109 days	Sun 10/1/17	Wed 2/28/18
4	Budget Approvals for Traffic Study	44 days	Thu 3/1/18	Tue 5/1/18
5	Solicit and Award Contract for Traffic Study	44 days	Wed 5/2/18	Sat 6/30/18
6	Complete traffic Study	47 days	Mon 7/2/18	Tue 9/4/18
7	**Plan to exit San Juan Generating Station share ownership in the mid-2020's**	22 days	Fri 6/1/18	Sat 6/30/18
8	DPU notifies the other owners in the SJGS, DPU to exit the station 2022	22 days	Fri 6/1/18	Sat 6/30/18
9	**Continue to explore participation in the UAMPS nuclear power project**	2674 days?	Thu 9/1/16	Tue 12/1/26
10	CFPP Public Involvement	2653 days	Sat 10/1/16	Tue 12/1/26
11	Project Management Committee Approves CFPP Finance Plan	44 days	Thu 3/1/18	Tue 5/1/18
12	Power Purchase Agreement with DOE/LANL Not Approved	44 days	Thu 3/1/18	Tue 5/1/18
13	Reduce capacity subscription from 16 MW to 8 MW's	1 day		
14	Continue to Explore Transmission Options for 8 MW subscription CFPP	588 days	Sat 10/1/16	Tue 1/1/19
15	Power Purchase Agreement for 8 MW subscription CFPP	22 days	Sun 4/1/18	Mon 4/30/18
16	Board/Council Decision on Phase 2, Combined Operating License Application (COLA) Preparation (8 MW)	46 days	Sun 4/1/18	Fri 6/1/18
17	COLA Preparation	371 days	Mon 7/2/18	Mon 12/2/19
18				
19	Power Purchase Agreement with DOE/LANL Approved	1 day	Thu 3/1/18	Thu 3/1/18
20	Continue to Explore Transmission Options for 16 MW subscription CFPP	588 days	Sat 10/1/16	Tue 1/1/19
21	Power Purchase Agreement for 16 MW subscription CFPP	21 days	Mon 4/2/18	Mon 4/30/18
22	Board/Council Decision on Phase 2, Combined Operating License Application (COLA) Preparation (16 MW)	66 days	Mon 4/2/18	Sat 6/30/18
23	COLA Preparation	372 days	Mon 7/2/18	Tue 12/3/19
24				
25	CFPP Passes Economic Competitive Test	1 day?	Wed 1/1/20	Wed 1/1/20
26	Project Management Committee approves budget for NRC review of COLA	10 days	Wed 1/15/20	Tue 1/28/20
27	Board/Council Decision Combined Operating License Application (COLA) submittal to NRC	44 days	Sat 2/1/20	Wed 4/1/20
28	NRC COLA Review	871 days	Fri 5/1/20	Fri 9/1/23
29	NRC Decision on COLA	1 day	Mon 9/4/23	Mon 9/4/23
30				
31	CFPP Passes Economic Competitive Test	45 days	Tue 8/1/23	Sat 9/30/23
32	Project Management Committee approves budget for Construction of the Plant	1 day	Mon 10/2/23	Mon 10/2/2
33	Board/Council Decision to construct CFPP(16 MW)	45 days	Mon 1/1/24	Fri 3/1/24
34	CFPP Construction	784 days	Sat 7/1/23	Wed 7/1/26
35	CFPP Commercial Operation Date	1 day	Tue 12/1/26	Tue 12/1/26
36				
37	**Pursue access to suitable utility-scale photo-voltaic generation sites presently owned by DOE/LANL.**	1 day	Fri 6/1/18	Fri 6/1/18
38	Progress updates on land availability and options for a joint solar PV project between DOE-LANL and LAC.	1 day	Fri 6/1/18	Fri 6/1/18
39	**Evaluate feasibility, including market interest, for a community solar garden**	868 days	Thu 9/1/16	Mon 12/30/19
40	Update on public buildings and property available for solar installations.	1 day	Mon 1/1/18	Mon 1/1/18
41	Request for Proposals Solicitation	45 days	Tue 5/1/18	Sun 7/1/18
42				
43	Strategic Policy for Distributed Energy Resources (DER) and Rate Structure	869 days?	Thu 9/1/16	Tue 12/31/1
44	**Electric Distribution Models (Distributed Energy Resources and Rate Structures 2-7)**	782 days?	Thu 9/1/16	Fri 8/30/19
45	Upload Distribution model from MilSoft	22 days	Thu 9/1/16	Fri 9/30/16
46	Develop engineering model with no-load (1a, 1b)	391 days	Mon 10/3/16	Sat 3/31/18
47	Attach connected load to engineering model (1c)?	130 days?	Mon 4/2/18	Fri 9/28/18
48	Phase 1, Engineering Study (with connected KVA, 5.1 c)	175 days?	Mon 10/1/18	Fri 5/31/19
49	Provide Phase 1 study results to customers	21 days	Mon 6/3/19	Mon 7/1/19
50	Staff recommendation to Utilities Board/Council Phase 1	44 days	Tue 7/2/19	Fri 8/30/19



	Task Name	Duration	Start	Finish
52	**Dispatchable Loads (Distributed Energy Resources and Rate Structures 8 & 9)**	**587 days?**	**Mon 10/2/17**	**Tue 12/31/19**
53	Finalize economic review and initiate RFP	283 days	Mon 10/2/17	Wed 10/31/18
54	Select and Award Contract for DERMS software	21 days	Fri 12/1/17	Fri 12/29/17
55	Go live Utilizing DERMS	43 days	Thu 3/1/18	Mon 4/30/18
56	Monitor and record 1 year of active management of DERS	262 days	Sun 7/1/18	Mon 7/1/19
57	Establish Rates to reward participants utilizing subscribing DERMS	131 days	Tue 7/2/19	Tue 12/31/19
58				
59	**AMI, Value of Solar Tariff and Rate Structures (Distributed Energy Resources and Rate Structures 1, 10 - 13)**	**694 days?**	**Thu 9/1/16**	**Tue 4/30/19**
60	Development of "unbundled" cost of service tariffs for energy consumption	65 days	Mon 1/1/18	Fri 3/30/18
61	Public outreach on rate structure and AMI metering deployment $15k	65 days	Mon 1/1/18	Fri 3/30/18
62	Ordinance for adoption/Implementation of Unbundled rate structure April 18 – May 18	21 days	Mon 4/2/18	Mon 4/30/18
63	Deployment of AMI Metering $4.5M	20 days	Mon 9/3/18	Fri 9/28/18
64	Contract for deployment of AMI metering $75k Cost	45 days	Sun 10/1/17	Thu 11/30/17
65	Development of New Rate Structure with time of use considerations $250k fall 18 – April 19	152 days	Mon 10/1/18	Tue 4/30/19
66	Public outreach on time of use rate structure $15k	152 days	Mon 10/1/18	Tue 4/30/19
67	Ordinance for adoption/Implementation of time of use rate structure	152 days	Mon 10/1/18	Tue 4/30/19
68				
69	Modify Rule E-5 and IA (not guaranteed rates/smart inverter rqmts.	22 days	Thu 9/1/16	Fri 9/30/16
70	Phase 1 Update Rule E-5 and IA to include PV limits by feeder	22 days	Fri 6/1/18	Sat 6/30/18
71	Phase 2 Update Rule E-5 and IA to include PV limits by feeder	22 days	Fri 3/1/19	Sat 3/30/19

The Future Energy Resources Committee prepared a July 2015 report to recommend future energy generation resources for the County. BPU adopted a majority of the recommendations in January and March 2016. DPU's plan to implement the BPU adopted policies are described in the schedule (above) and updates (below).

A Carbon Free Power Project

Staff is scheduled to present the status of the CFPP at the local Engineering Chapter meeting in October following a presentation by NuScale on the technology. DPU has also began discussions on a comprehensive Public Informational meeting by DPU, UAMPS and NuScale in January 2018. Project participants are expected to get governing body approvals to participate in the next phase of the project by March 2018.

B Carbon Free Power Project Transmission Options

UAMPS continues to take the lead on transmission requirements for the project and has had preliminary discussion with the Western Area Power Administration (WAPA) on a potential displacement agreements. DPU has had informal discussions with WAPA regarding this option and is seeking a non-binding letter agreement making this option available to the Los Alamos Power Pool.

C Community Solar Garden

DPU staff has identified numerous sites suitable for a community solar garden and will work with Community Development on zoning requirements and or restrictions. DPU staff is planning on updating the Board of Public Utilities in January 2018 with the goal of issuing a Request for Proposals in the spring of 2018.

D Distribution Models

The electrical distribution system has been electrically modelled in the Milsoft engineering software; this means there is electrical connectivity and continuity to be able to perform engineering analysis. However, the department is validating the engineering model to ensure the correct wire sizes, transformer sizes, customer meter types, and other important information is correct to ensure the accuracy of the engineering analysis. We have validated about 50% of the model and hope to finish the remaining in the next 6 months.

E Dispatchable Loads

DPU staff is completing the economic analysis for the deployment of a Distributed Energy Resource Management System (DERMS) to control Distributed Energy Resources (DERS) and other interruptible loads to manage the intermittency of renewable resources. This project is expected to be implemented by April 2018.

F Modify Rule E-5

Modify this rule to state that customer rates are not guaranteed to anytime into the future. Staff made the decision to include new language in Rule E-5 when the unbundling of rates is completed in the third quarter of 2018.

Robert Westervelt
Deputy Utilities Manager

FINANCE AND ADMINISTRATION

QTR 1// 2018

Electric Operations

In a continuation of what was seen in FY16 and FY17, electric sales were below budget for the first quarter of FY18, both for retail customers and for sales to DOE. Retail sales were 9.49 percent below the budgeted 33,041,542 kWh and sales to DOE were 11.96 percent below the budgeted 151,616,000 kWh. Overall kWh sales for retail customers and DOE were 11.52 percent below budget.

In electric distribution, the 1st quarter closed with net operating revenues of $1,087,249, which is 32.3 percent of the total annual budget. This higher than projected operating revenue for the quarter is due primarily to low cost of power. Capital expenditures totaled $455,947, which is about 20 percent of the $2.2 million budgeted for FY18.

The first quarter of FY18 yielded net revenue of $641,302 for electric distribution. A net loss of ($583,123) is budgeted for the year, which includes the profit transfer and budgetary carryovers from FY17. This budgeted loss is reflecting the scheduled continuation of work on projects which were funded through the 2014 bond issue.

Gas Operations

Gas sales in the first quarter were 22.9 percent below budgeted sales volume for that period, with total sales of 586,938 therms. This variance is partially due to warmer weather in September when consumption normally ramps up. In addition, gas used for water pumping is significantly lower than expected, as Pajarito Well #4, which operates on natural gas, was off line for much of July and all of August, when we normally schedule highest utilization of this well. Net cash flow from operations was ($34,265), a reasonable figure as DPU works to balance revenues with expenditures while disposition of excess gas reserves is discussed.

The cost of gas remained low in the first quarter due to continuing the low market price of gas. The total for the quarter was equivalent to 7 percent of the full FY18 budget for the cost of gas, which is typical for the first quarter of the fiscal year. Capital Expenditures for the fourth quarter were $2,166. There is $700,000 budgeted for capital projects in

the gas utility, but for the most part those projects have not yet been initiated.

For the full fiscal year, gas operations' budgeted operating cash flow is $842,636, budgeted capital expenditures are $700,000, and the budgeted transfer to the general fund is $262,075. Budget adjustments of $67,317 factor in to yield a budgeted net loss of ($186,756). This budgeted loss will be covered through existing fund balance.

Water Operations

Due to consistent rainfall and mild temperatures retail sales were 3.9 percent below budget and sales to DOE were 26.5 percent below budget for the first quarter of FY2018. Total sales in thousands of gallons for both Retail and DOE were 9.95 percent below budget for the quarter.

Net cash flow from water operations was $732,159 for the quarter. A small prior period correction yielded a credit for capital spending of ($16,020), yielding total water net revenues of $748,179 for the quarter. No new capital projects were budgeted under Water Distribution for FY18. 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 $2.02M in revenue funded projects budgeted, but no costs on those projects have yet been realized as of the end of the first quarter.

In electric distribution, the 1st quarter closed with net operating revenues of $1,087,249, which is 32.3 percent of the total annual budget. This higher than projected operating revenue for the quarter is due primarily to low cost of power.

For the full fiscal year, water operations' budgeted operating cash flow is $739,679, and budgeted capital expenditures—including carryforward project amounts and encumbrance rollovers--are $11,093,120. The capital budget includes receipt of $3,271,000 in County reimbursements and grants/ loans, resulting in a budgeted net loss of ($7,082,441). Negative cash flow was budgeted to be funded from existing fund balance.

Wastewater Operations

Cash flow from operations was negative ($22,165) for the three months ended September 30, 2017. Capital expenditures for the quarter totaled $728, yielding a net negative cash flow of ($22,893).

For the full fiscal year, wastewater operations' budgeted operating cash flow is $510,684. We only have one small capital project of $50,000 budgeted for FY18, but carryovers of $294,422 yield an adjusted net revenue of $166,262.

Previous page: Customer Care Center staff Maxine Montoya and Tracey Alarid, and Utilities Manager Tim Glasco accept a proclamation from Councilor Pete Sheehey that the week of October 2nd stall be customer service week.

This page: Several Los Alamos County departments participated in an October 4th open house to celebrate customer service week. DPU handed out water and energy conservation kits to open house participants.

NATURAL GAS RATES

EXPLANATION

Natural Gas Rate includes Pass-Through Cost

Since 2013 the Department of Public Utilities has included in its rate a "pass-through" cost of natural gas. 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, fluxuating gas prices. Each month DPU posts the new variable cost of gas rate on the website at: https://www.losalamosnm.us/government/departments/utilities/rates___fees/

(Monthly service charge) + (Fixed cost recovery fee/therm) + (Variable cost of gas rate/therm) = Total charged

Schedule of Customers

7A:	Residential	7L:	County
7E:	Commercial	7N:	Schools

Monthly Service Charge

Schedule	*Meter Rated*	*Service Charge*
ALL	≤ 250 CFH	$ 9.50
ALL	> 250 CFH	$28.50

Fixed Cost Recovery Fee/therm

Schedule	*Fixed Cost Recovery Fee/therm*
7A & 7E	$0.23
7L & 7N	$0.20

Variable Cost of Gas/therm

Month	*Schedule*	*Projected Variable Cost of Gas/therm*	*Adjustment to Prior Month Estimate/therm*	***Total Variable Cost of Gas per therm***
September 2017	7A, 7E, 7L & 7N	$0.30	$(0.08)	**$0.22**
August 2017	7A, 7E, 7L & 7N	$0.31	$ -	**$0.31**
July 2017	7A, 7E, 7L & 7N	$0.32	$0.10	**$0.42**

WHAT IT MEANS

DPU Rates Compared to Neighboring Communities

When comparing the variable cost of gas or the pass-through rate, DPU is able to pass savings that it receives from the New Mexico Municipal Energy Acquistion Authority (NMMEAA) directly to its customers immediately. NMMEAA was created by local governments and retains the RBC as its financial advisor.

Variable Cost of Gas/therm

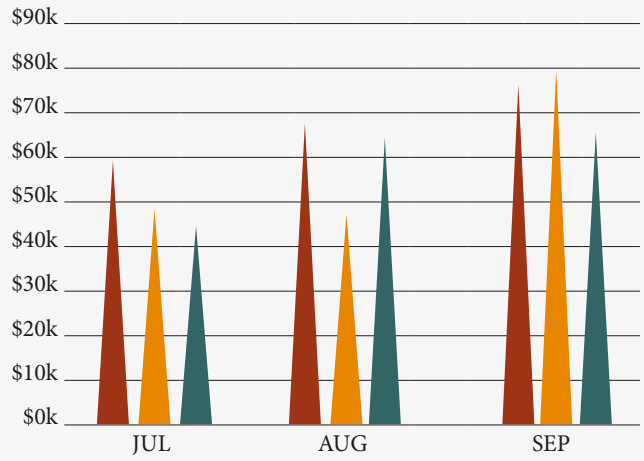
	DPU	*NMGC**
Jul 2017	$0.22	$0.37
Aug 2017	$0.31	$0.37
Sep 2017	$0.42	$0.36

*Source: https://www.nmgco.com/Current_Natural_Gas_Rates.aspx

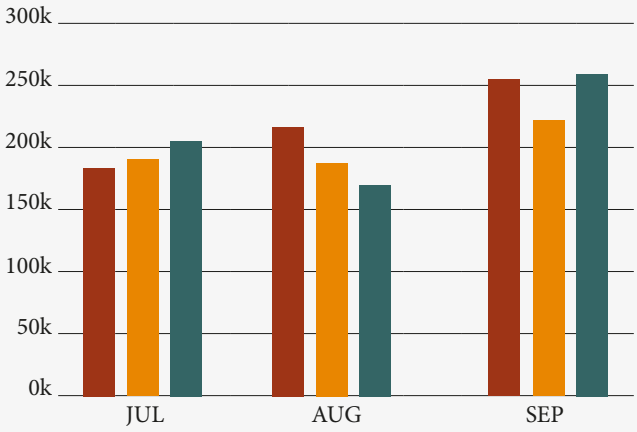
The following graphs depict the DPU's total costs and quantity of natural gas delivered to meet Los Alamos County's demand. Each chart includes the 2017 estimate, and 2017 and 2016 actuals.

Estimate
Actual 2017
Actual 2016

DPU's Cost of Natural Gas



Therms Delivered to Los Alamos



Colder months generally drive the demand for natural gas to increase for heating by residential and commercial customers. DPU expects to see higher demand in the 2nd and 3rd quarters.

Electric Operations

Financial Status - Unaudited // FY2018

		Q1	Q2	Q3	Q4	Total
Unit Sales	**Retail Electric (KWh)**					
	Total retail sales	29,905,787				29,905,787
	Budgeted sales	33,041,542				33,041,542
	Retail sales variance (KWh)	(3,135,755)				(3,135,755)
	Sales to NNSA	133,483,147				133,483,147
	Budgeted sales to NNSA	151,616,000				151,616,000
	NNSA sales variance (KWh)	(18,132,853)				(18,132,853)
	Total actual KWh sales	163,388,934				163,388,934
	Total budgeted sales	184,657,542				184,657,542
	Total sales variance (KWh)	(21,268,608)				(21,268,608)
Financial Results	Electric production revenues	$8,972,459				$8,972,459
	Electric production expenditures	$9,107,381				$9,107,381
	Electric distribution (ED) revenues	3,628,785				3,628,785
	ED other revenue	6,407				6,407
	ED operating expenses	$2,547,943				$2,547,943
	Net ED operating revenues	$1,087,249				$1,087,249
	ED capital expenditures	$445,947				$445,947
	Net ED Income(Loss)	$641,302				$641,302
Budgeted	Budgeted Operating Income(Loss)					$3,356,862
	Budgeted Capital Expenditures					($2,233,371)
	5% Revenue Transfer					*($651,065)*
	Budgeted Net ED Income(Loss)					$472,426
	Budget Adjustments*					($1,055,549)
	Adj. Budgeted Net ED Income (Loss)					($583,123)

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

Natural Gas Operations

Financial Status - Unaudited // FY2018

		Q1	Q2	Q3	Q4	Total
Unit Sales	**Retail Sales - Therms (100,000 BTU)**					
	Total sales	586,938				586,938
	Budgeted sales	760,975				760,975
	Retail sales variance (therms)	(174,037)				(174,037)
Financial Results	Gas distribution revenues	$534,001				$534,001
	Gas other revenues	$48,023				$48,023
	Gas distribution operating expenses	$614,123				$614,123
	Net Gas operating revenues	($32,099)				($32,099)
	Gas distrib. capital expenditures	$2,166				$2,166
	Net Gas Revenue	($34,265)				($34,265)
Budgeted	Budgeted Operating Income(Loss)					$842,636
	Budgeted Capital Expenditures					($700,000)
	5% Revenue Transfer					*($262,075)*
	Budgeted Net Gas Income(Loss)					($119,439)
	Budget Adjustments*					($67,317)
	Adj. Budgeted Net Gas Income (Loss)					($186,756)

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

Water Operations

Financial Status - Unaudited // FY2018

		Q1	Q2	Q3	Q4	Total
Unit Sales	**Water Sales in thousand gallons**					
	Wholesale sales to LANL	77,130				77,130
	Budgeted wholesale sales	105,000				105,000
	Retail sales	278,240				278,240
	Budgeted retail sales	289,650				289,650
	Total sales	355,370				355,370
	Total budgeted sales	394,650				394,650
	Sales variance, in thousand gallons	(39,280)				(39,280)
Financial Results	Wholesale Revenues	$496,966				$496,966
	Retail revenues	$1,618,570				$1,618,570
	Other revenues	$1,172				$1,172
	Total water revenues	$2,116,708				$2,116,708
	Water prod. operating expenses	$964,925				$964,925
	Water dist. operating expenses	$419,624				$419,624
	Total water operating expenses	$1,384,549				$1,384,549
	Net water operating revenues	$732,159				$732,159
	Water production capital	($17,107)				($17,107)
	Water distribution capital	$1,087				$1,087
	Total capital expenditures	($16,020)				($16,020)
	Net water revenues	$748,179				$748,179
Budgeted	Budgeted Operating Income(Loss)					739,679
	Budgeted Capital Expenditures					(7,296,000)
	Budgeted Grant/Loan/GF Transfers					3,271,000
	Budgeted Net Water Income(Loss)					(3,285,321)
	Budget Adjustments*					(3,797,120)
	Adj. Budgeted Net Water Income (Loss)					(7,082,441)

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

Wastewater Operations

Financial Status - Unaudited // FY2018

		Q1	Q2	Q3	Q4	Total
Unit Sales	**Sewer Treated in thousand gallons**					
	Total treated	114,426				114,426
	Budget treated	106,377				106,377
	Variance (thousands of gallons)	8,049				8,049
Financial Results	Sewer revenues	$1,289,512				$4,997,697
	Sewer misc. revenues	($17,684)				$1,460
	Sewer operating expenses	$1,293,993				$3,923,675
	Net Sewer operating revenues	($22,165)				$1,075,482
	Sewer capital expenditures	$728				$728
	Net Sewer Revenue	($22,893)				($22,893)
Budgeted	Budgeted Operating Income(Loss)					510,684
	Budgeted Capital Expenditures					(50,000)
	Budgeted Net Wastewater Income(Loss)					460,684
	Budget Adjustments*					(294,422)
	Adj. Budgeted Net Wastewater Income (Loss)					166,262

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

Electric Consumption

Consumption Status - Unaudited // FY2018

		Q1	Q2	Q3	Q4	Total
Electric Revenues	Residential	1,729,165				1,729,165
	Private Area Lights	3,266				3,266
	Commercial	1,232,772				1,232,772
	Municipal	421,353				421,353
	Water Production	122,688				122,688
	Educational	109,777				109,777
	Pole Rentals	-				-
	Misc/Backcharges	9,763				9,763
	TOTAL	$3,628,785				$3,628,785
Electric Sales (KWh)	Residential	13,007,232				13,007,232
	Private Area Lights	9,354				9,354
	Commercial	10,403,716				10,403,716
	Municipal	2,680,546				2,680,546
	Water Production	2,891,247				2,891,247
	Educational	913,693				913,693
	TOTAL	29,905,787				29,905,787
Billed Locations (Average)	Residential	7,783				7,783
	Commercial	644				644
	Municipal	165				165
	Educational	47				47
	TOTAL	8,639				8,639
Revenue/KWh (Average)	Residential	$0.1329				$0.1329
	Private Area Lights	$0.3492				$0.3492
	Commercial	$0.1185				$0.1185
	Municipal	$0.1572				$0.1572
	Water Production	$0.0424				$0.0424
	Educational	$0.1201				$0.1201
	AVERAGE	$0.1210				$0.1210
Loss Calculation	Power Recv'd, KWh	30,655,382				30,655,382
	PV Power Recv'd, KWh	213,780				213,780
	Qtrly Losses <Gains>, KWh	963,375				963,375
	% Qtrly Losses <Gains>	3.12%				3.12%
	YTD CUMM LOSSES <Gains>	3.12%				3.12%

Natural Gas Consumption

Consumption Status - Unaudited // FY2018

		Q1	Q2	Q3	Q4	Total
Gas Revenues	Residential	408,260				408,260
	Commercial	95,840				95,840
	TA-3 Sales	-				-
	Municipal	19,747				19,747
	Water Production	6,776				6,776
	Educational	(8,881)				(8,881)
	Misc/Backcharges	12,259				12,259
	TOTAL	$534,001				$534,001
Gas Sales (Therms)	Residential	375,893				375,893
	Commercial	146,654				146,654
	TA-3 Sales	-				-
	Municipal	29,835				29,835
	Water Production	24,420				24,420
	Educational	10,136				10,136
	TOTAL	586,938				586,938
Billed Locations (Average)	Residential	7,073				7,073
	Commercial	366				366
	Municipal	47				47
	Educational	26				26
	TOTAL	7,512				7,512
Revenue /Therm (Average)	Residential	$1.0861				$1.0861
	Commercial	$0.6535				$0.6535
	TA-3	-				-
	Municipal	$0.6619				$0.6619
	Water Production	$0.2775				$0.2775
	Educational	($0.8762)				($0.8762)
	AVERAGE	$0.8889				$0.8889
Loss Calculation	Gas Recv'd, therms	578,800				578,800
	Qtrly Losses <Gains>, therms	(8,138)				(8,138)
	% Qtrly Losses <Gains>	-1.41%				-1.41%
	YTD CUMM LOSSES <Gains>	-1.41%				-1.41%

Water Consumption

Consumption Status - Unaudited // FY2018

		Q1	Q2	Q3	Q4	Total
Water Revenues	Residential	1,299,500				1,299,500
	Commercial	144,249				144,249
	Municipal	100,656				100,656
	Educational	66,680				66,680
	Misc/Backcharges	7,484				7,484
	TOTAL	$1,618,570				$1,618,570
Water Sales (KGal)	Residential	219,355				219,355
	Commercial	26,426				26,426
	Municipal	19,580				19,580
	Educational	12,879				12,879
	TOTAL	278,240				278,240
Billed Locations (Average)	Residential	6,607				6,607
	Commercial	282				282
	Municipal	90				90
	Educational	27				27
	TOTAL	7,006				7,006
Revenue/KGal (Average)	Residential	$5.9242				$5.9242
	Commercial	$5.4586				$5.4586
	Municipal	$5.1408				$5.1408
	Educational	$5.1773				$5.1773
	AVERAGE	$5.7903				$5.7903
Loss Calculation	Water Recv'd, KGal	314,956				314,956
	Qtrly Losses <Gains> KGal	36,716				36,716
	% Qtrly Losses <Gains>	11.66%				11.66%
	YTD CUMM LOSSES <Gains>	11.66%				11.66%

Wastewater Treated

Treated Status - Unaudited // FY2018

		Q1	Q2	Q3	Q4	Total
Sewer Revenues	All Retail	1,256,612				1,256,612
	Municipal/Effluent*	32,735				32,735
	Misc/Backcharges	166				166
	TOTAL	$1,289,512				$1,289,512
Sewage Treated (KGal)	Los Alamos	80,712				80,712
	White Rock	33,714				33,714
	TOTAL TREATED	114,426				114,426
	REVENUE/KGal Treated	$11.27				$11.27

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

LOS ALAMOS
Department of Public Utilities

1000 Central Avenue, Suite 130, Los Alamos, NM | P 505 662 8333 | CustomerCare@lacnm.us | www.losalamosnm.us