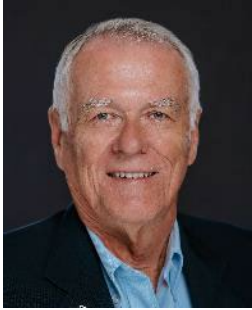


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Board of Public Utilities

**Annual Presentation
to County Council**

**Robert Gibson, Chair
July 23, 2024**

Board of Public Utilities



Member

Position

Term

Robert Gibson

Chair

2023-2028



Eric Stromberg

Vice Chair

2020-2025

Matt Heavner

Member

2024-2026
(partial)

Charlie Nakhleh

Member

2022-2027



Steve Tobin

Member
(outgoing)

2019-2024

Jennifer Hollingsworth

Member
(new)

2024-2029

DPU Senior Management



Philo S. Shelton, III
—
Utilities Manager

Deputy Utility Managers



James
Alarid
—
Engineering
Division



Ben
Olbrich
—
Electric
Production



Stephen
Marez
—
Electric
Distribution



Clay
Moseley
—
Gas, Water
and Sewer
Services



Karen
Kendall
—
Finance and
Administration

Partners

- Community
 - Residents, property owners, institutions
 - Not just as customers
- County Government
 - Council
 - Sustainability Coordinator
 - Public Works & Community Development
- DOE/LANL

DPU is a Big Enterprise

- **Four utilities** - wastewater, water, natural gas, electricity
- **Employees** - 108 FTEs
- **Budget** - \$99M/yr
- **Assets** - \$217M
- **Safety Record** - few issues

Recent Activity and Where We are Today

Department Staffing is Stable

- **Staffing** – essentially fully staffed
- **Turnover** – reduced to normal levels, primarily retirements
- **Experience** – improving; near normal levels overall; GWS inexperienced

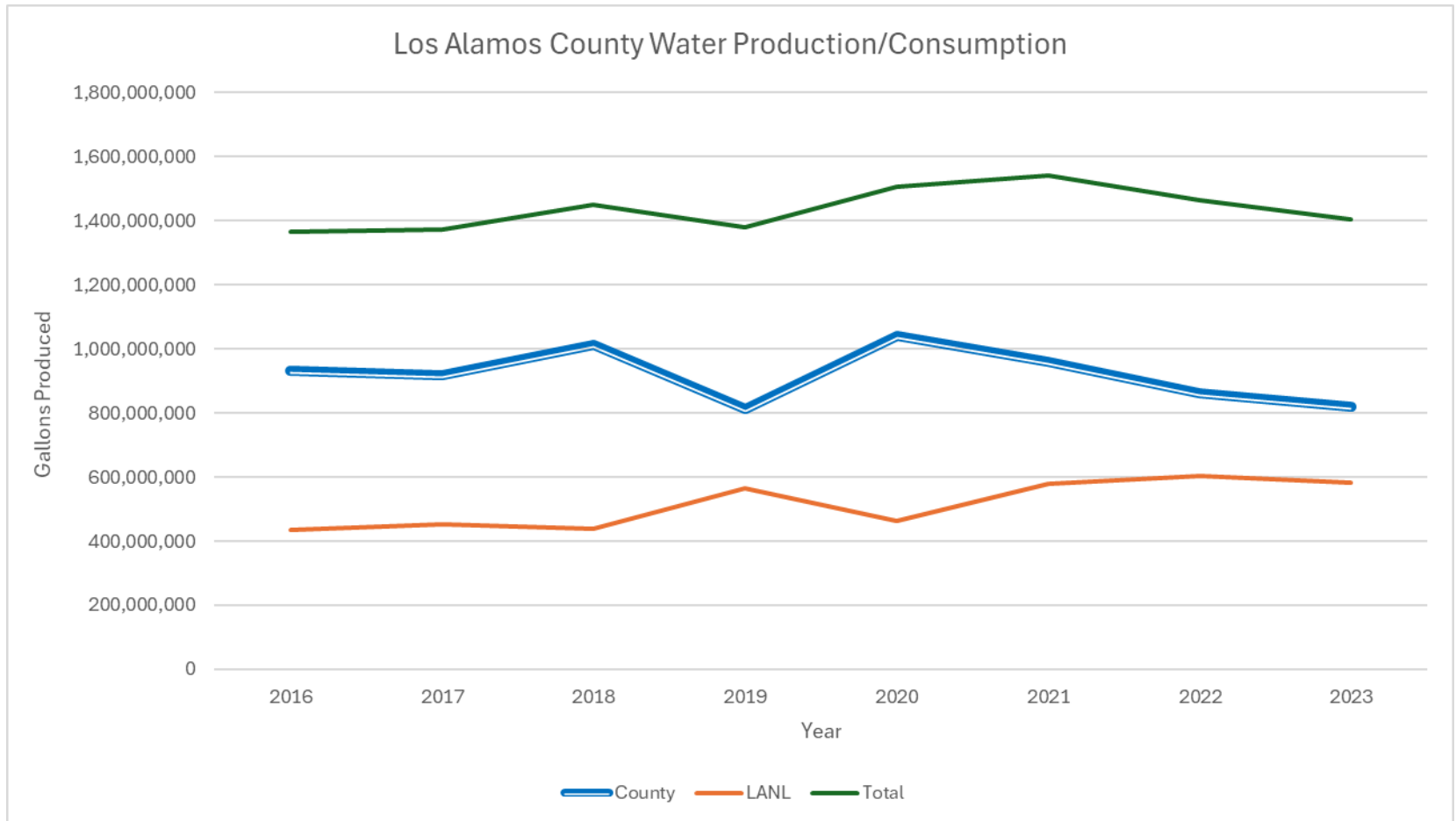
Improvements to the Wastewater System Continue

- No unusual maintenance or operations issues
- White Rock Water Resource Reclamation Facility (WR-WRRF) – should be complete by August 23, 2024 (we will be in compliance)
- All WR effluent (Class 1A) available for reuse
- Upgrades to LA WWTP
- Bayo Lift Station elimination in progress



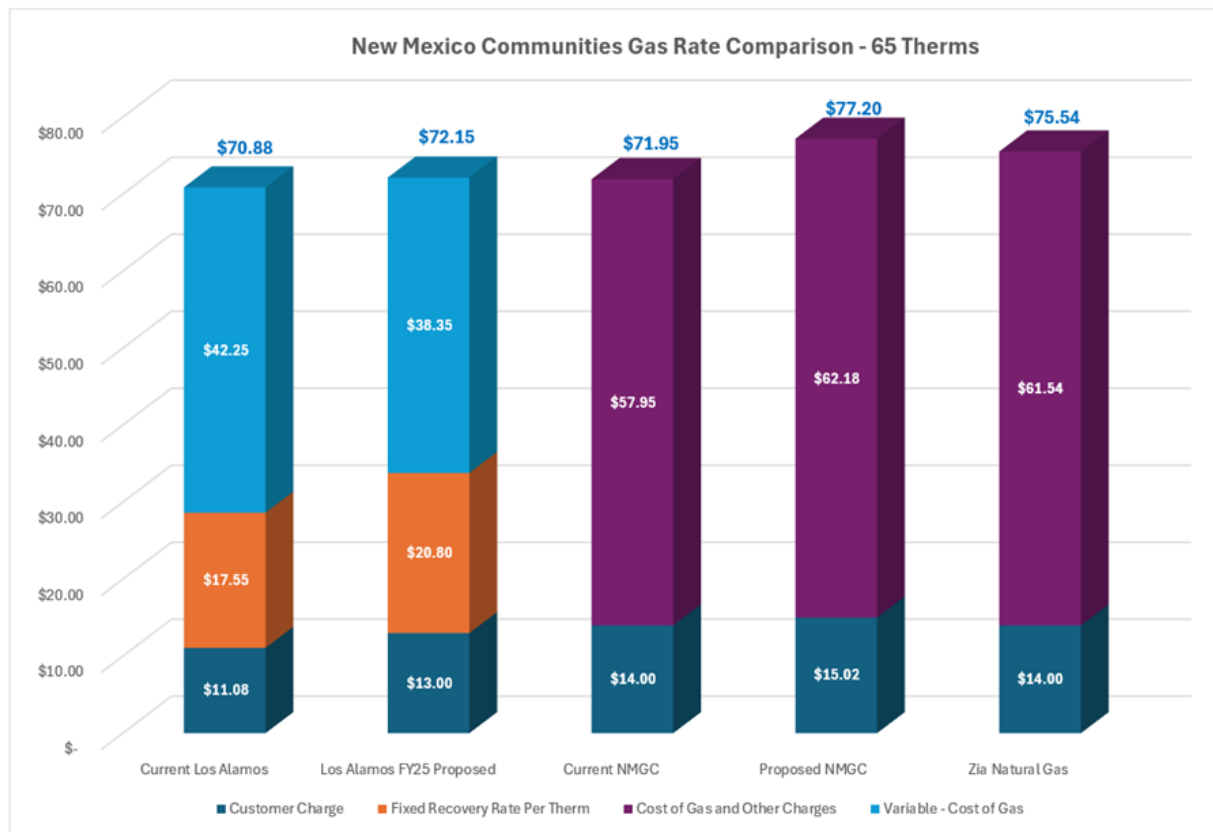
Water Use is Declining

- Chromium Plume Migration
- Quemazon Valve Leaks – Replacing all similar bolts



The Natural Gas System is Stable

- No unusual maintenance or operational issues
- Winter 2022-23 cost spike fully recovered
- Notice of Probable (documentation) Violation
- Modest rate increase proposed



The \$70.88 current bill is based on current rates plus \$0.65 average variable cost of gas for FY2024. The \$72.15 was calculated using the proposed rate changes plus \$0.59 for the variable cost of gas passthrough (using the five-year historical average cost of gas plus the increases in delivery fees). The variable portion representing the cost of gas is an estimate and the actual amount does vary by month.

Electric Production Transition is Bumpy

- Abiquiu outage for 75 days lost 9610 MWh generation
- El Vado inoperable during dam refacing
 - Restart originally scheduled for 2026
 - Project suspended by Bureau of Reclamation
 - Forward path and schedule uncertain
- Uniper defaulted - contract terminated; Mercuria replacement in place
- Carbon Free Power Project (CFPP) abandoned
- Foxtail Flats – 170 MW solar; 320 MWh battery; scheduled for 2026
(Many eggs in that basket; watch closely.)

Electric Distribution

- No unusual maintenance or operations issues
- SAIDI = 15 minutes!
- Los Alamos Switch Station (LASS) on-line in calendar year 2024 – doubles townsite circuits
- Most frequent reliability problem:
 - Direct-bury underground cable
 - Accelerated 10-year replacement program initiated in fiscal year 2024
- PV credit (Rule E-5) controversy
 - Minor policy change
 - DPU billing error correction

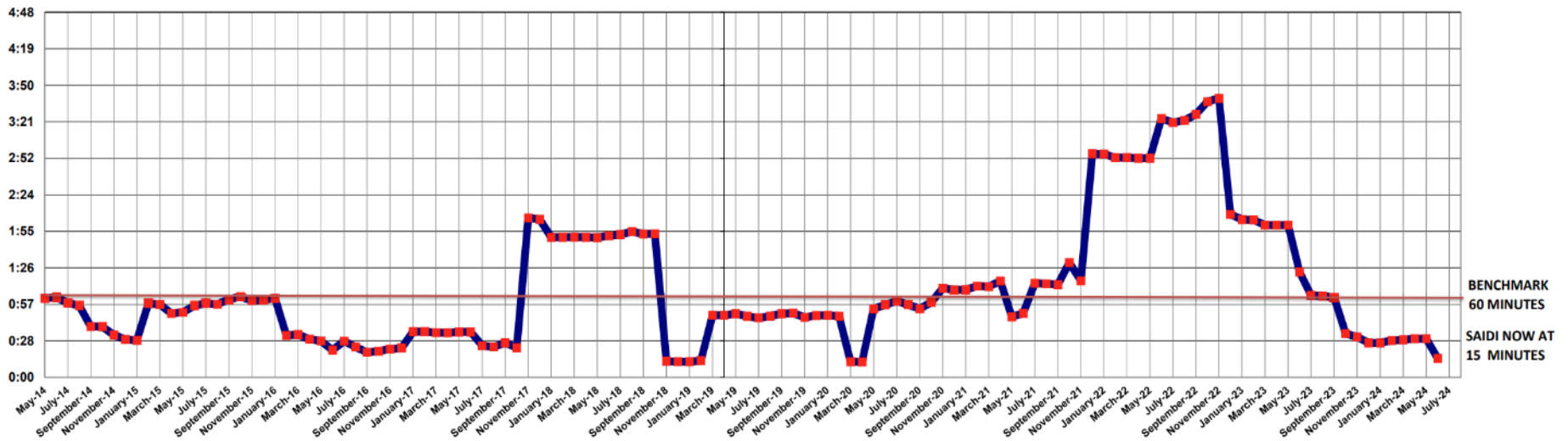
Electric Distribution - Reliability

System Average Interruption Duration Index (SAIDI)
 = yearly average customer outage time

EACH POINT IS A MONTHLY SAIDI HISTORY
 60 MINUTES = LACDPU SAIDI BENCHMARK

SAIDI = STANDARD AVERAGE INTERRUPTION DURATION

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



Most Recent 10 Years

Challenges Going Forward

- Keep lights on - gas, water, wastewater flowing as/where intended
- Strategic issues are primarily electric
 - Long-term (decades)
 - Short-term (~FY25)

New/Diverse Sources Required for Carbon-Neutral Supply

- Nuclear?
- Geothermal?
- More PV? (San I?)
- Storage?
- Other?

EV Charging will Require More Supply and New Distribution

- How much supply?
- Where (chargers and distribution system lines)?
- Policies, pricing, & payment
- Study this FY (Sust. Coord + DPU + PW)



Building Electrification will Require Changes to Every Occupied Building and Increase Demand

- **Involves Whole Community**
- **Requires County Leadership**
- *Education, encouragement & support vs. mandates & subsidies*
- Cooking – Conversion to induction stovetops (in progress)
- Hot Water – Solar or heat pump water heaters (not quite on market)
- Space – Conversion to heat pumps (starting to happen)
 - **Cannot meet demand with replacement alone**
- Reduce building artificial (gas or electric) heat needs
 - New Construction -- Compact architectures/solar heat
 - New & Remodeled -- Reduce leakage: better insulation, windows, doors

A New Electric Distribution System is Required



- Near-term ad hoc upgrades in context of long-term design
- Stay ahead of demand for both EVs and buildings
- Expensive; costs spread over 20-30 years
- Study this FY

BPU/DPU Near Term Issues (~FY25)

- Electric Distribution Study
 - Localized EV load saturation (now?)
 - Localized rooftop PV saturation (now?)
- Electric Vehicle Study (w/ Sust. Coord. & PW)
- Foxtail Flats Construction Monitor
- Elec. Coord. Agreement (ECA) renewal
- Electric rate structure update/overhaul
 - Seeking new, more flexible billing software
 - Possible time-of-use rates

DPU is in Good Shape Presently with Decarbonization Challenges Ahead

- Safety, personnel & budgets stable
- Wastewater, water, sewer, electric systems operating nominally
- Seeking new, diverse carbon-free electrical resources
- EV charging & building electrification will require new supply and distribution – being studied this FY
- Building artificial heat needs **MUST** be reduced

LOS ALAMOS

Board of Public Utilities



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Questions?