



INFORMATIONAL BOARD LETTER

*Ann M. Santilli*

Ann M. Santilli (Jul 24, 2023 14:23 PDT)

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**ANN M. SANTILLI**  
Chief Financial Officer

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**MARTIN L. ADAMS**  
General Manager and Chief Engineer

**DATE:** July 17, 2023

**SUBJECT:** LADWP Rates Metrics Semi-Annual Report

**SUMMARY**

Attached is the semi-annual report on Rates Metrics.

Pursuant to Section 4 of the Water and Electric Rates Ordinances, LADWP shall provide a written report to the Board of Water and Power Commissioners (Board) on a semi-annual basis, commencing 2017. This report shall include:

- The Rates Metrics being monitored.
- The results for each metric.
- The target.
- The variance of actual performance from the target.
- Any proposed mitigation plans to address a variance.

The detailed information is provided in this Informational Board Letter under section Rates Metrics.

**RATES METRICS**

**Rates Metrics 2022-2023 (Fiscal-Year-To-Date April 2023)**

The Rates Metrics currently include 16 for Water System, 29 for Power System, and 14 for Joint System. A summary of the fiscal-year-to-date April 2023 performance status of all these metrics is listed in the Rates Metrics Summary (Attachment I).

<b>LADWP Rates Metrics Status (Fiscal Year to Date April 2023)</b>		
<b>Performance Status</b>		<b># Metrics</b>
Exceeds Target	Blue	<b>5</b>
Within Acceptable Variance	Green	<b>23</b>
Outside Acceptable Variance	Red	<b>21</b>
Needs Attention	Yellow	<b>1</b>
Information Only	White	<b>9</b>
Total		<b>59</b>

For the period ending April 2023, 47 percent of the metrics are either within the acceptable variance or exceed the target.

Twenty-one of the fifty-nine Rates Metrics are outside the acceptable variance. Explanations for metrics outside the acceptable variance include:

### Power System

<b>Metric</b>	<b>Variance</b>	<b>Explanation</b>
Average Cost of Training for Electric Distribution Mechanic Technician (EDMT)	49.9%	<ul style="list-style-type: none"> <li>The monthly CPT calculation will vary from month to month. It's based on a number of factors which include the adjusted class size, dropouts, terminations and the final number of graduates.</li> <li>The screening process is continually being reviewed in an effort to increase the quality of candidates and to reduce the dropout rate.</li> </ul>
Last Signed PPA (\$/MWh) - Geothermal	23.8%	<ul style="list-style-type: none"> <li>Actual is above target due to current market trends.</li> </ul>
PSRP Generation Capital (Budget vs. Actual)	-36.5% (-\$6.5M)	<ul style="list-style-type: none"> <li>\$3M underrun is caused by Job B2231 – Castaic Power Plant (CPP) Major Inspection Overhauls due to reduction of Mechanical Repair Services from double shift to single shift.</li> <li>\$3.3M underrun is caused by Job B2222 – Generation Transformer Replacement Project due to delay of transformer delivery to next fiscal year.</li> <li>\$900K underrun is caused by Job B2225 – Aqueduct Power Plan (APP) Major Inspection Overhauls due to cranes used to perform the inspections and overhauls being out of order causing a delay in scheduled work.</li> </ul>

Metric	Variance	Explanation
PSRP Transmission Capital (Budget vs. Actual)	78.7% (27.4M)	<ul style="list-style-type: none"> <li>Overrun is primarily due to a major milestone payment made to the contractor for Scattergood-Olympic Cable B Install (Job O1406), and the payment made for Cable B Bypass work as a change order for the same contract regarding this job.</li> </ul>
PSRP Transmission O&M (Budget vs. Actual)	32.0% (\$9.5M)	<ul style="list-style-type: none"> <li>Overrun is primarily due to the Overhead Transmission Lines O&amp;M (Job B1232) and the Human External Cargo (HEC) work that was performed on the Mead Victorville Line. Crews performed tower inspections and replaced flashed static insulators. Due to poor access, HEC methods were to used catch up on long overdue inspections and insulator replacements. The cost of additional personnel and equipment contributed to the overrun.</li> </ul>
PSRP Substation O&M (Budget vs. Actual)	19.6% (\$11.7M)	<ul style="list-style-type: none"> <li>Overall overrun is mainly attributed to overtime labor (CE11) and allocations for equipment repairs, restorations, and emergency response efforts at various Receiving, Distributing, and Customer Stations system-wide. Also, materials and supplies (CE41) expenditures purchased for cable replacement projects will be corrected by Journal Voucher by fiscal year-end. Individual reimbursements anticipated by year-end will decrease overrun. Overrun breakdown: OT: \$2.8M, Materials: \$1.9M, and IND reimbursements: \$3.1M.</li> </ul>
Number of Miles of Cable Replaced Against Plan	-39.0%	<ul style="list-style-type: none"> <li>Variance is due to District crews focusing on other priorities in previous months on outages, customer line extension work such as AH100 projects, conversion work and relocation work.</li> <li>Additionally, District crews need to close completed jobs and finalize jobs close to completion. Some cable replacement projects can be closed out once record drawings are completed by Engineering. Actual circuit-miles recorded are expected to be closer to the target goal when District crews close the completed jobs.</li> </ul>

Metric	Variance	Explanation
Average Unit Price per Mile of Cable	53.6%	<ul style="list-style-type: none"> <li>The primary driver for this variance has been labor cost and construction services. The increase in the amount of cable replaced is determined when the cable is removed and it becomes apparent that a larger amount of cable (length) needs to be replaced due to circuit configuration. Extreme deterioration of cable due to age, circuit loading, and damage by collapsed conduit is identified as the cable is removed. This will generate additional conduit repair work and cost.</li> </ul>
Distribution Automation Project (Budget vs. Actual)	-58.7% (-\$12.7M)	<ul style="list-style-type: none"> <li>The program initially experienced delays with communication equipment delivery and installations due to late receipt from vendors and global supply chain issues.</li> <li>Installations ramped up with the addition of new staff to installation crews. Delays in substation deployment and changes in the complete system integrations project, and termination of associated task orders has resulted in significant under spending.</li> </ul>

### Water System

Metric	Variance	Explanation
Number of Full Time Equivalent (FTEs) for Water Distribution field positions	26.1%	<ul style="list-style-type: none"> <li>The Division has been unable to reduce the number of field vacancies due to multiple factors, including availability of civil service lists and internal promotions. The Division will continue hiring efforts to reduce the number of vacant budgeted field positions to reach the revised goal of 106 vacancies or less by the end of the fiscal year.</li> </ul>



Metric	Variance	Explanation
Water Supply Costs - Capital (Budget vs. Actual)	-55.8% (\$-51.8M)	<ul style="list-style-type: none"> <li>Watershed Stormwater Capture jobs are contributing to the underrun. The Stormwater Capture Parks Program has experienced major delays implementing the Memorandum of Agreement which was initially in negotiation with the Los Angeles Department of Public Works Bureau of Sanitation (LASAN), but will now be in collaboration with the Los Angeles County Flood Control District (LACFCD). The execution of the MOA is anticipated to occur in FY 23/24.</li> <li>Water Conservation Water Funded jobs are contributing to the underrun due to the decrease in demand for commercial and residential rebates at the beginning of the FY due to COVID-19. The Conservation Programs have started back up and LADWP is working on backlogs of services. LADWP is expecting increased customer participation due to conservation programs, i.e., Flume Water Monitoring Program and Turf Replacement Rebates. In addition, the partnership agreement with the Southern California Gas Company (SCGC), which provides direct installation of free water conserving devices, has been approved. LADWP received SCGC invoices totaling over \$300K, which should be processed in early June.</li> <li>Water Recycling Capital jobs are contributing to the underrun as there has been a delay in processing invoices. Additionally, permitting issues and concerns from the Bureau of Engineering (BOE) have led to construction delays for the Harbor Recycled Water Potable Backup Project.</li> </ul>
Water Supply Costs – O&M (Budget vs. Actual)	17.9% (\$20.7M)	<ul style="list-style-type: none"> <li>The YTD overrun is due to Water Recycling O&amp;M. Payments to the West Basin Municipal Water District for the cost of water treatment on the westside, construction of the Hyperion Advanced Water Purification Facility, and additional labor needed to assist with the Groundwater Replenishment Project have all contributed to the overrun. In addition, the high sales of recycled water have resulted in increased payments LASAN.</li> <li>Contributing to the overrun is expenditures for both Los Angeles Aqueduct (LAA) Northern District Maintenance and LAA Northern District Operation. Due to the record snow pack, additional Labor (Regular and Overtime) and construction equipment services were needed for the implementation of flood control measures.</li> </ul>

Metric	Variance	Explanation
Aqueduct refurbishment Capital (Budget vs. Actual)	-25.3% (\$-7.2M)	<ul style="list-style-type: none"> <li>The underrun is due to several capital projects such as the North Haiwee Dam Project, Grant Lake Roto Valve Project, and Grant Lake Spillway Modification Project being postponed due to additional Scope of Work or delays in planning and permitting.</li> <li>Contributing to the underrun is Eastern Sierra Environmental capital due to management's directive to contract out the Grant Lake Spillway Modification Project. As a result, work will no longer be confirmed by Power Construction &amp; Maintenance. Construction is anticipated to begin April 2024.</li> </ul>
Aqueduct refurbishment O&M (Budget vs. Actual)	30.1% (\$14.5M)	<ul style="list-style-type: none"> <li>Aqueduct continues to focus on O&amp;M work as several Capital projects are delayed. Additional labor, material, and construction services were needed for the implementation of flood control measures due to record snow pack.</li> </ul>
Water Quality O&M (Budget vs. Actual)	-13.7% (-\$16.9M)	<ul style="list-style-type: none"> <li>The underrun in Distribution Reservoir O&amp;M is due to delays in obtaining environmental permits for the Van Norman Complex Mitigation Project. The payment is expected to be incurred in August 2023.</li> <li>Contributing to the underrun is Water Quality-Groundwater O&amp;M. The MOA between LASAN and LADWP for the Hyperion Membrane Bioreactor (MBR) Pilot expired and thus there is no mechanism in place, currently, to make payments. Remaining payments and future added costs will be paid via a new MOA, which is expected to go to the Board next fiscal year.</li> <li>Helping reduce the underrun is an overrun in Distribution Treatment Operations due to maintenance work performed on the Van Norman Chlorination Station 2 back-up power supply.</li> </ul>

### Joint System

Metric	Variance	Explanation
Financial and Human Resources Replacement Project (Budget vs. Actual)	-54.7% (\$-44.8M)	<ul style="list-style-type: none"> <li>Financial Management Planning Stage sign-off was delayed due to final review of deliverables. This stage was signed off January 19, 2023. Due to overall delays in HR/Payroll and Financial Management (Phases II and III) contract spending for Professional Services is projected to be underspent \$20 million this year and Material Services are projected to be \$3 million underspent.</li> </ul>

Metric	Variance	Explanation
Cyber Security Capital Projects (Budget vs. Actual)	-57.6% (-\$12.9M)	<ul style="list-style-type: none"> <li>• Invoice issues have been resolved with vendors; working with Supply Chain and Accounts Payable to process over \$3M in payments.</li> <li>• Realignment of O&amp;M and Capital Labor costs is being addressed as some of the capital projects have now switched to O&amp;M.</li> </ul>
Customer Information System (CIS) Upgrades (Budget vs. Actual)	-72.9% (-\$15.8M)	<ul style="list-style-type: none"> <li>• Labor costs are lower due to delays in hiring activity to fill vacant positions. Lower labor costs are also related to the delays with the kickoff of some capital project initiatives such as Water Trouble Work Management system replacement and AMI.</li> </ul>
Information Technology Services (ITS) Staffing Program	48.3%	<ul style="list-style-type: none"> <li>• Hiring has been partially affected by delays in the refresh of critical Civil Service lists ITS has exhausted. It is projected that the target FTE count will not be met by fiscal year end but ITS will continue to prioritize hiring as a critical function.</li> </ul>
Energy Savings Against Plan	-22.4%	<ul style="list-style-type: none"> <li>• Energy efficiency program activities will increase in FY22-23 with Home Energy Improvement Program (HEIP) having resumed field assessments and installation work in mid-September 2022.</li> </ul>
Energy Efficiency Portfolio (Budget vs. Actual)	-23.4% (-\$33.8M)	<ul style="list-style-type: none"> <li>• Energy efficiency program activities and expenditures are expected to increase in the 4th quarter of FY 22-23.</li> </ul>

The Corporate Performance Group is working with the respective operating units to closely monitor the progress as they take steps to bring the metrics to within the acceptable variance range.

To the extent that more information is required beyond the high-level summary dashboards, the LADWP can provide more detailed information as requested by the Board or the Office of Public Accountability.

### Rates Metrics Reporting Dashboards

A one-page dashboard for each of the metrics is created to provide concise and pertinent information on the status of the LADWP's work as represented by the Rates Metrics to the Mayor, City Council, Board, Office of Public Accountability/Ratepayer Advocate, customers, and other stakeholders. For each metric, the corresponding dashboard provides the metric definition; the target for the fiscal year; performance/variance analysis and forecast; achievements/milestones met; and mitigation plans and/or recommendations to improve performance as necessary. The performance status of each Rate Metrics is reflected through the following colors:

- Blue: Exceeds Target
- Green: Within Acceptable Variance
- Yellow: Needs Attention
- Red: Outside Acceptable Variance

Each rate metric manager is responsible for providing the status update information and its accuracy in a timely manner to the Corporate Performance Group. The default status on Rates Metrics will either be green or red. The Corporate Performance Group, with the assistance from the Systems, will ascertain whether a different status, such as blue or yellow is warranted given additional information and/or detailed mitigation plans.

### **ATTACHMENTS**

- LADWP Rates Metrics Summary 2022-2023 – Fiscal Year to Date April 2023 (Attachment I)

**ATTACHMENT I**  
**LADWP Rates Metrics Summary**  
**2022-2023 Fiscal Year To Date**  
**(April 2023)**



## LADWP RATES METRICS SUMMARY

Related Rate Adjustment Factor	Category	#	Board Metric	Definition	FY 22/23 Target	Acceptable Variance	Responsible Manager	April 2023 Performance
Reliability Cost Adjustment Factor	Power System Training Plan	1	Average cost of Power System Training Plan per trainee	Average cost of training for Electric Distribution Mechanic Technician (EDMT) classification per trainee that graduates from respective training program	EDMT: \$538.2K	+/- 25%	Brian Williams	49.9%
	Power System Training Plan	2	Average cost of Power System Training Plan per trainee	Average cost of training for Electrical Mechanic Technician (EMT) classification per trainee that graduates from respective training program	EMT: \$922.6K	+/- 25%	Brian Williams	-5.9%
	Power System Training Plan	3	Number of trainee graduates against Power System Training Plan	Number of Electric Distribution Mechanic Technician (EDMT) trainees that graduate from each respective training program against the annual training plan	EDMT: 25	+/- 15%	Brian Williams	20.0%
	Power System Training Plan	4	Number of trainee graduates against Power System Training Plan	Number of Electrical Mechanic Technician (EMT) trainees that graduate from each respective training program against the annual training plan	EMT: 41	+/- 15%	Brian Williams	31.7%
None	Power Distribution Staffing Program	5	Number of Full Time Equivalents (FTEs) for Power Distribution field positions as compared to plan	Number of Full Time Equivalents (FTEs) for Power Distribution field positions as compared to plan	Vacant budgeted Power Distribution field positions at 512 vacancies or less by the end of the fiscal year	+/- 15%	Nazir Fazli	12.0%
Energy Cost Adjustment Factor	Renewable Portfolio Standard (Owned)	6	Renewable Portfolio Standard (RPS) Percentage (%)	GWh from RPS plants/GWh for all customers (State requirement)	38.50% for Calendar Year 2022 41.25% for Calendar Year 2023	+/- 3% of each calendar year's goal toward state law mandates	Steven Pruett	NA
	Renewable Portfolio Standard (Owned)	7	Total RPS cost (\$/MWh) vs. plan, by technology (Wind)	Total RPS purchased power cost (\$/MWh) as compared to plan, by technology (Wind)	Wind: \$110.08/MWh	+ 15%	Marlon Santa Cruz	-5.3%
	Renewable Portfolio Standard (Owned)	8	Total RPS cost (\$/MWh) vs. plan, by technology (Solar)	Total RPS purchased power cost (\$/MWh) as compared to plan, by technology (Solar)	Solar: \$71.93/MWh	+ 15%	Marlon Santa Cruz	-1.9%
	Renewable Portfolio Standard (Owned)	9	Total RPS cost (\$/MWh) vs. plan, by technology (Geothermal)	Total RPS purchased power cost (\$/MWh) as compared to plan, by technology (Geothermal)	Geothermal: \$80.46/MWh	+ 15%	Marlon Santa Cruz	-4.1%
	Renewable Portfolio Standard (Owned)	10	Last signed power purchase agreement (PPA) (\$/MWh) by technology (Wind)	Last signed PPA (\$/MWh) by technology (Wind)	Wind: \$35.00/MWh	+30%	Marlon Santa Cruz	-27.1%
	Renewable Portfolio Standard (Owned)	11	Last signed PPA (\$/MWh) by technology (Solar)	Last signed PPA (\$/MWh) by technology (Solar)	Solar: \$35.00/MWh	+15%	Marlon Santa Cruz	-43.8%
	Renewable Portfolio Standard (Owned)	12	Last signed PPA (\$/MWh) by technology (Geothermal)	Last signed PPA (\$/MWh) by technology (Geothermal)	Geothermal: \$61.00/MWh	+15%	Marlon Santa Cruz	23.8%

Within Acceptable Variance ■
 Outside Acceptable Variance ■
 Exceeds Target ■
 Needs Attention ■

Related Rate Adjustment Factor	Category	#	Board Metric	Definition	FY 22/23 Target	Acceptable Variance	Responsible Manager	April 2023 Performance
Reliability Cost Adjustment Factor	Power System Reliability Program (Generation)	13	Budget vs. actual (\$M) for capital in the Generation budget	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	Robert Fick	-36.5%
	Power System Reliability Program (Transmission)	14	Budget vs. actual (\$M) for capital included in the Transmission budget	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	Jason Hills	78.7%
		15	Budget vs. actual (\$M) for O&M expenses included in the Transmission budget	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	Ruben Hauser	32.0%
	Power System Reliability Program (Substation)	16	Budget vs. actual (\$M) for capital in the Substation budget	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	Tesfaye Zeleke	-11.9%
		17	Budget vs. actual (\$M) for O&M expenses in the Substation budget	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	Jonathan Fonti	19.6%
	Power System Reliability Program (Distribution)	18	Budget vs. actual (\$M) for capital in the Distribution budget	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	Vincent Zabukovec	11.7%
		19	Budget vs. actual (\$M) for O&M expenses in the Distribution budget	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	Ruben Hauser	2.2%
	Power System Reliability Program (Distribution)	20	Number of fixed assets replaced against plan for critical Distribution assets (Transformers)	Numbers of transformers replaced against plan	Transformer: 1,150	+/- 15%	Ruben Hauser	45.5%
		21	Number of fixed assets replaced against plan for critical Distribution assets (Poles)	Numbers of poles replaced against plan	Pole: 3,500	+/- 15%	Ruben Hauser	6.2%
		22	Number of fixed assets replaced against plan for critical Distribution assets (Crossarms)	Numbers of crossarms replaced against plan	Cross-arm: 12,000	+/- 15%	Ruben Hauser	-6.6%
		23	Number of fixed assets replaced against plan for critical Distribution assets (Cable)	Numbers of miles of cable replaced against plan	Cable: 60 miles	+/- 15%	Vincent Zabukovec	-39.0%
	Power System Reliability Program (Distribution)	24	Average unit price for critical Distribution assets (Transformers)	Average unit price per transformer	Transformer: \$10.1k	+/- 15%	Walter Rodriguez, Jr.	-18.8%
		25	Average unit price for critical Distribution assets (Poles)	Average unit price per pole	Pole: \$35.6k	+/- 15%	Walter Rodriguez, Jr.	-5.6%
		26	Average unit price for critical Distribution assets (Cross-arms)	Average unit price per cross-arm	Cross-arm: \$1.2k	+/- 15%	Walter Rodriguez, Jr.	8.3%
27		Average unit price for critical Distribution assets (Cable)	Average unit price per mile of cable	Cable: \$1,407.4k	+/- 15%	Walter Rodriguez, Jr.	53.6%	
None	Distribution Automation Project	28	Distribution Automation Project total spending against plan	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	Kodi Uzomah	-58.7%

Within Acceptable Variance ■ Outside Acceptable Variance ■ Exceeds Target ■ Needs Attention ■



Related Rate Adjustment Factor	Category	#	Board Metric	Definition	FY 22/23 Target	Acceptable Variance	Responsible Manager	April 2023 Performance
None	Distribution Automation Project progress	29	Distribution Automation Project progress against schedule	Project milestones met against project schedule	Project Milestones and Dates: Target date: FY 22/23 Qtr 2 (Oct 2022-Dec 2022) - Complete installation of pole top communication equipment. Target date: FY 22/23 Qtr 3 (Jan 2023-Mar 2023) - Complete system integration. Target date: FY 22/23 Qtr 4 (Apr 2023-Jun 2023) - Complete construction of DS-36.	Info only	Kodi Uzomah	N/A
None	Water Distribution Staffing Program	30	Number of Full Time Equivalents (FTEs) for Water Distribution dedicated to infrastructure field positions as compared to plan	Number of FTEs hired and dedicated to Water Distribution field position as compared to plan	Vacant budgeted Water Distribution infrastructure field positions at 86 vacancies or less by the end of the fiscal year	+/- 15%	Breonia Lindsey/Sandra Foster	26.1%
Water Supply Cost Adjustment Factor	Water Supply	31	Water supply costs budget vs. actual (\$M) for capital	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 10%	April Thang	-55.8%
	Water Supply	32	Water supply costs budget vs. actual (\$M) for O&M (excluding Purchased Water costs)	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 10%	April Thang	17.9%
	Water Supply	33	Annual quantity of purchased water in acre-feet (AF) against plan	AF of water purchased against plan	No Target	Info only	April Thang	NA
	Water Supply	34	Annual quantity of recycled water delivered against plan (AF)	AF of recycled water delivered against plan	No Target	Info only	Jesus Gonzalez	NA
	Water Supply	35	Stormwater system capacity milestones (AF) against plan	AF of stormwater system capacity as of a milestone date against plan	83,000 AFY	+/- 10%	David R. Pettijohn	-0.5%
	Capital Improvement Program	36	Budget vs. actual (\$M) for Aqueduct refurbishment capital	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 10%	Wendy McGhie	-25.3%
	Capital Improvement Program	37	Budget vs. actual (\$M) for Aqueduct refurbishment O&M	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 10%	Wendy McGhie	30.1%
	Water Supply	38	Level of water conservation against target (GPCD)	Gallons per capita per day (GPCD) of water conserved against target	106 Gallons	+/- 10%	Terrence McCarthy	-2.8%
Water Infrastructure Adjustment Factor	Capital Improvement Program	39	Budget vs. actual (\$M) for fixed assets replacement	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 10%	April Thang	-9.9%
	Capital Improvement Program	40	Assets replaced against plan	Feet of mainline replaced against plan	Mainline: 210,000 Feet	+/- 10%	<b>Mainline &amp; Meters:</b> Breonia Lindsey/Sandra Foster	-6.8%
	Capital Improvement Program	41	Assets replaced against plan	Feet of trunkline replaced against plan	Trunkline: 11,515 Feet	+/- 10%	<b>Trunkline:</b> Milad Taghavi	37.8%
	Capital Improvement Program	42	Assets replaced against plan	Number of meters replaced against plan	Meters: 33,500	+/- 10%	<b>Mainline &amp; Meters:</b> Breonia Lindsey/Sandra Foster	-10.3%

Within Acceptable Variance ■ Outside Acceptable Variance ■ Exceeds Target ■ Needs Attention ■

Related Rate Adjustment Factor	Category	#	Board Metric	Definition	FY 22/23 Target	Acceptable Variance	Responsible Manager	April 2023 Performance
Water Quality Improvement Adjustment Factor	Water Quality Projects	43	Total Water Quality Budget vs. actual (\$M) for capital	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 10%	Jianping Hu	1.6%
Water Quality Improvement Adjustment Factor	Water Quality Projects	44	Total Water Quality Budget vs. actual (\$M) for O&M	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 10%	Nelson Mejia	-13.7%
Owens Valley Regulatory Adjustment Factor	Owens Valley	45	Budget vs. actual for Owens Lake O&M (\$M)	Board Approved Annual Budget vs. Actual expenditures	No Target	Info only	Paul Liu	NA
	Human Resources	46	Human Resources Total FTEs against plan	Total number of full time equivalent positions occupied vs. annual Authorized Personnel Resolution	FY22/23 Board Approved Annual Authorized Personnel Resolution - May 2022	+/- 20%	Gregory Reed	-18.1%
	Financial and Human Resources Replacement Project	47	Financial and Human Resources Replacement Project total spending against plan	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 20%	Rita Khurana-Carwile	-54.7%
	Financial and Human Resources Replacement Project	48	Financial and Human Resources Replacement Project progress against schedule	Project milestones met against project schedule	Phase 1: Architect Stage Completion July 2022 Phase 1: Architect Stage Configure and Prototype Stage Completion Jan 2023 Phase 2: Architect Stage Completion Jan 2023	Info only	Rita Khurana-Carwile	NA
	Cyber Security Capital Projects	49	Budget vs. Actual (\$M) for Cyber Security Capital Projects	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	Marco Elizarraras	-57.6%
	Customer Information System Upgrades	50	Budget vs. Actual (\$M) for Customer Information System (CIS) Upgrades, Enhancements and System Integrations	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	Annamae Peji	-72.9%
	Information Technology Services Staffing Program	51	Number of Full Time Equivalent (FTEs) for Information Technology Services (ITS) as compared to plan	Number of FTEs for ITS employed as compared to plan	Vacant budgeted ITS positions at 50 vacancies or less by the end of the fiscal year	+/- 15%	Mark S. Northrup	48.3%
	LADWP Employee Cost	52	LADWP Employee Cost Budget vs. Actual (\$M)	LADWP total employee costs (including regular labor, overtime, pension and healthcare, excluding daily exempt and Utility Pre-Craft Trainees) Budget vs. Actual	FY22/23 Board Approved Budget - May 2022	+/- 15%	LADWP Senior Management	7.2%
	Water Distribution Employees per Water Customer Meter	53	Total Number of Water Distribution Employees per Water Customer Meter	Total number of water distribution employees (excluding daily exempt and Utility Pre-Craft Trainees) per water customer meters	No Target	Info only	Corporate Performance	NA
	Power Distribution Employees per Power Customer Meter	54	Total Number Power Distribution Employees per Power Customer Meter	Total number of power distribution employees (excluding daily exempt and Utility Pre-Craft Trainees) per electric customer meters	No Target	Info only	Corporate Performance	NA
	LADWP Employees per Customer Meter	55	Total Number of Water and Power Employees per Customer Meter	Total number of water and power employees (excluding daily exempt and Utility Pre-Craft Trainees) per water and power meters	No Target	Info only	Corporate Performance	NA

Within Acceptable Variance ■ Outside Acceptable Variance ■ Exceeds Target ■ Needs Attention ■

Related Rate Adjustment Factor	Category	#	Board Metric	Definition	FY 22/23 Target	Acceptable Variance	Responsible Manager	April 2023 Performance
Energy Cost Adjustment Factor	Renewable Portfolio Standard (Owned)	56	Green House Gas (GHG) emissions reduction ratio	GHG emission for current year/GHG emission in 1990 (in millions of metric tons)	Calendar Year 2022: 60% below LADWP's 1990 levels Calendar Year 2023: 60% below LADWP's 1990 levels	+5%	Katherine Rubin	42.0%
Energy Cost Adjustment Factor	Energy Efficiency	57	Energy Efficiency (EE) ratio (%)	GWh installed compared to the 2020 baseline/GWh for all customers	1.50%	+/- 15%	David Jacot	-22.4%
	Energy Efficiency	58	Budget vs. actual (\$M) for the overall EE portfolio	Board Approved Annual Budget vs. Actual expenditures	FY22/23 Board Approved Budget - May 2022	+/- 15%	David Jacot	-23.4%
	Energy Efficiency	59	Levelized EE program costs (\$/kWh)	Cost per kWh over lifetime of installed energy efficiency solutions	Annual metric: Levelized Cost \$0.15/kWh	+/- 10%	David Jacot	

Within Acceptable Variance ■
 Outside Acceptable Variance ■
 Exceeds Target ■
 Needs Attention ■



# **Power System**



# LADWP RATES METRIC – Average Cost per Electric Distribution Mechanic Trainee (Power)

**RESPONSIBLE MANAGER:** Brian Williams, Power System Training

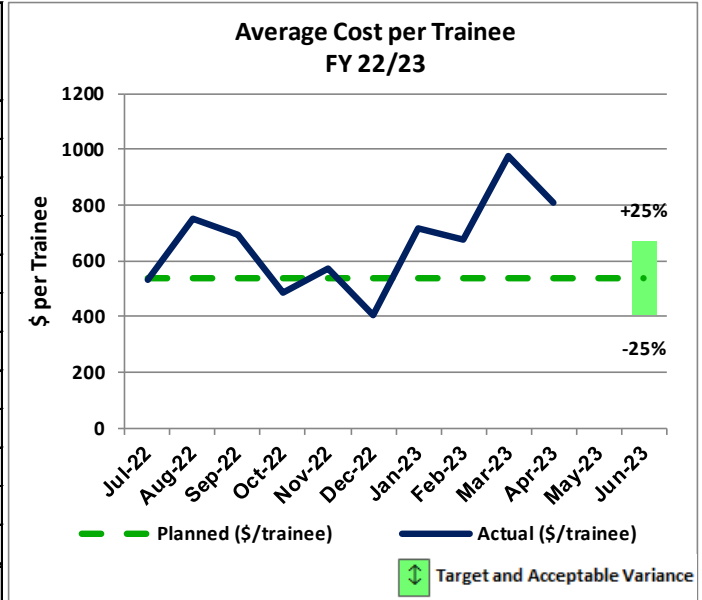
**REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Average cost of training for Electric Distribution Mechanic Trainee (EDMT) classification per trainee that graduates from the training program

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = \$538.2K per EDMT; Acceptable Variance = ± 25% *Brian Williams*

**STATUS:** Outside Acceptable Variance

FYTD as of:	Planned (\$/trainee)	Actual (\$/trainee)	Variance		Re-Estimate
			\$	%	
Jul-22	538.2	533.2	(5.0)	-0.9%	
Aug-22	538.2	750.9	212.7	39.5%	
Sep-22	538.2	695.7	157.5	29.3%	
Oct-22	538.2	487.0	(51.2)	-9.5%	
Nov-22	538.2	570.4	32.2	6.0%	
Dec-22	538.2	407.9	(130.3)	-24.2%	
Jan-23	538.2	719.1	180.9	33.6%	
Feb-23	538.2	676.1	137.9	25.6%	
Mar-23	538.2	977.7	439.5	81.7%	
Apr-23	538.2	806.7	268.5	49.9%	
May-23	538.2				549.2
Jun-23	538.2				549.2
<b>Acceptable Variance</b>			± 25%		2.0%



**SOURCE OF DATA:** Jobs X7922/X7999/X7955 (KPI # 04.01.02.10)

**1. BACKGROUND / PURPOSE**

- To effectively calculate a monthly cost per trainee (CPT) for an Electric Distribution Mechanic (EDM) completing a 42 month on the job and classroom training program.

**2. ACHIEVEMENTS / MILESTONES MET**

- The past classes average success rates are based on two calendar years as follows:
  - 2014 to 2015: 56%
  - 2016 to 2017: 59%
  - 2018 to 2019: 60%
  - 2020 to 2021: 63%

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- The monthly CPT calculation will vary from month to month. It's based on a number of factors which include the adjusted class size, dropouts, terminations and the final number of graduates.
- Due to the decreased spending in the Classroom Training for EDM Trainees (X7922) and Classroom Trainers for EDM Trainees (X7999) Jobs, the Actual CPT is lower this month as compared to March.

The main drivers for the lower CPT are the decreased Directs and Allocations for X7922 and X7999.

- Annualized Job totals for (X7922/X7999/X7955) vary depending on the tools and materials purchased for subsequent new classes.
- The Re-Estimate of \$549.2K was calculated using the final figures of the related jobs (X7922/X7999/X7955) for the entire fiscal year 21/22 with the 12-month average trainee occupancy.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- The screening process is continually being reviewed in an effort to increase the quality of candidates and to reduce the dropout rate. Overhead and underground disciplines are no longer separated and all future trainees are cross-trained in both. EDM trainee candidates are now required to complete two performance tests during the initial certification interviews.

# LADWP RATES METRIC – Average Cost per Electrical Mechanic Trainee (Power)

*Brian Williams*

RESPONSIBLE MANAGER: Brian Williams, Power System Training

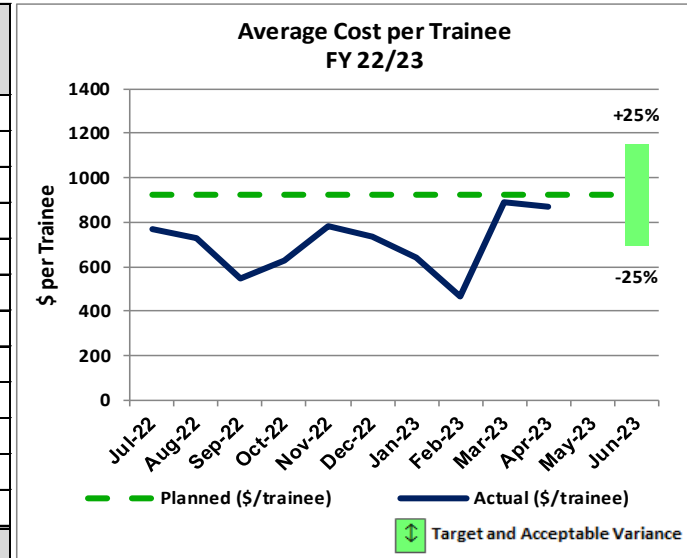
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Average cost of training for Electrical Mechanic Trainee (EMT) classification per trainee that graduates from the training program

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = \$922.6K per EMT; Acceptable Variance = ± 25%

STATUS: Within Acceptable Variance

FYTD as of:	Planned (\$/trainee)	Actual (\$/trainee)	Variance		Re-Estimate
			\$	%	
Jul-22	922.6	771.0	(151.6)	-16.4%	
Aug-22	922.6	725.8	(196.8)	-21.3%	
Sep-22	922.6	545.0	(377.6)	-40.9%	
Oct-22	922.6	628.0	(294.6)	-31.9%	
Nov-22	922.6	781.6	(141.0)	-15.3%	
Dec-22	922.6	733.6	(189.0)	-20.5%	
Jan-23	922.6	643.0	(279.6)	-30.3%	
Feb-23	922.6	462.9	(459.7)	-49.8%	
Mar-23	922.6	891.6	(31.0)	-3.4%	
Apr-23	922.6	867.8	(54.8)	-5.9%	
May-23	922.6				855.9
Jun-23	922.6				855.9
<b>Acceptable Variance</b>			± 25%		-7.2%



SOURCE OF DATA: Jobs X7923/X7926/X7955 (KPI # 04.01.02.11)

## 1. BACKGROUND / PURPOSE

- To effectively calculate a monthly cost per trainee (CPT) for an Electrical Mechanic (EM) completing a 48-month on-the-job and classroom training program. The EM Training Program has changed from a 40-month program to a 48-month program.

## 2. ACHIEVEMENTS / MILESTONES MET

- The past classes average success rates are based on two calendar years as follows:
  - 2014 to 2015: 70%
  - 2016 to 2017: 85%
  - 2018 to 2019: 89%
  - 2020 to 2021: 75%

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- The monthly CPT calculation will vary from month to month. It's based on a number of factors which include the adjusted class size, dropouts, terminations and the final number of graduates.
- Expenditures are in line with last month and are within an acceptable variance.

- Annualized Job totals for (X7923/X7926/X7955) vary depending on the tools and materials purchased for subsequent new classes.
- The Re-Estimate of \$855.9K was calculated using the final figures of the related Jobs (X7923/X7926/X7955) for the entire fiscal year 21/22 with the 12-month average trainee occupancy.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- The screening process and all recruitment activities are continually being reviewed in an effort to increase the quality of candidates and to reduce the dropout rate. The Truesdale Training Center staff now works with the Personnel Department to evaluate potential new EM trainee candidates.



# LADWP RATES METRIC – EDMT Graduates (Power)

**RESPONSIBLE MANAGER:** Brian Williams, Power System Training

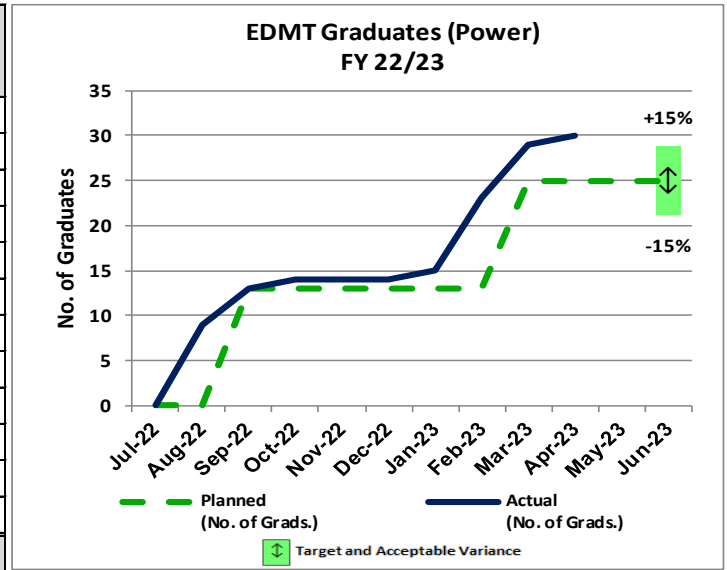
**REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Electric Distribution Mechanic Trainee (EDMT) Graduates Against Training Plan

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = 25 graduates; Acceptable Variance = ± 15% *Brian Williams*

**STATUS:** Exceeds Target

FYTD as of:	Planned (No. of Grads.)	Actual (No. of Grads.)	Variance		Re-Estimate
			No.	%	
Jul-22	0	0	0	0.0%	
Aug-22	0	9	9	100.0%	
Sep-22	13	13	0	0.0%	
Oct-22	13	14	1	7.7%	
Nov-22	13	14	1	7.7%	
Dec-22	13	14	1	7.7%	
Jan-23	13	15	2	15.4%	
Feb-23	13	23	10	76.9%	
Mar-23	25	29	4	16.0%	
Apr-23	25	30	5	20.0%	
May-23	25				30
Jun-23	25				30
<b>Acceptable Variance</b>			± 15%		20.0%



**SOURCE OF DATA:** Monthly updates provided by the training superintendents. (KPI # 04.01.02.08)

**1. BACKGROUND / PURPOSE**

- Power System Safety and Training (PSST) provides the Department with an in-house Training Program designed to produce highly qualified Electric Distribution Mechanic (EDMs) to fill the needs of the Power Transmission and Distribution Division. Retirements, promotions, and expected growth in this classification are the basis for hiring practices and training plans.

**2. ACHIEVEMENTS / MILESTONES MET**

- In the FY 21/22, a total of 31 EDMs graduated. Seventeen of the eighteen EDMTs who started from Class 60 graduated as EDMs, yielding a 94% success rate.
- The past classes average success rates are based on two calendar years as follows:
  - 2014 to 2015: 56%
  - 2016 to 2017: 59%
  - 2018 to 2019: 60%
  - 2020 to 2021: 63%

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- Due to the modified screening process, there has been an increase in the quality of candidates who have entered the Training Program, yielding a higher graduation rate.
- There are currently seven active trainee classes in the Training Program. Class 63 graduated 15 total trainees, including one trainee in April, yielding a graduation rate of 79%.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- The screening process is continually being reviewed in an effort to increase the quality of candidates and to reduce the dropout rate. Overhead and underground disciplines are no longer separated and all future trainees are cross-trained in both. EDMT candidates are now required to complete two performance tests during the initial certification interviews.

# LADWP RATES METRIC – EMT Graduates (Power)

**RESPONSIBLE MANAGER:** Brian Williams, Power System Training

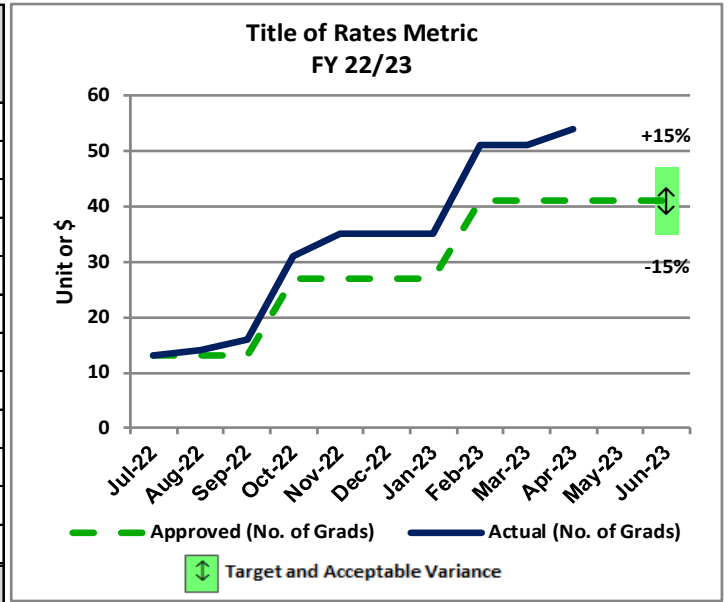
**REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Electrical Mechanic Trainee (EMT) Graduates Against Training Plan

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = 41 graduates; Acceptable Variance = ± 15% *Brian Williams*

**STATUS:** Exceeds Target

FYTD as of:	Approved (No. of Grads)	Actual (No. of Grads)	Variance		Re-Estimate
			No.	%	
Jul-22	13	13	0	0.0%	
Aug-22	13	14	1	7.7%	
Sep-22	13	16	3	23.1%	
Oct-22	27	31	4	14.8%	
Nov-22	27	35	8	29.6%	
Dec-22	27	35	8	29.6%	
Jan-23	27	35	8	29.6%	
Feb-23	41	51	10	24.4%	
Mar-23	41	51	10	24.4%	
Apr-23	41	54	13	31.7%	
May-23	41				55
Jun-23	41				55
<b>Acceptable Variance</b>			<b>± 15%</b>		34.1%



**SOURCE OF DATA:** Monthly updates provided by the training superintendents. (KPI # 04.01.02.09)

**1. BACKGROUND / PURPOSE**

- Power System Safety & Training (PSST) provides the Department with an in-house Training Program designed to produce highly qualified Electrical Mechanics (EMs) to fill the needs of the Power Construction & Maintenance (PC&M) Division. Retirements, promotions, and expected growth in this classification are the basis for hiring practices and training plans. To offset the hiring deficiencies of previous years, the plan is to continue with the aggressive hiring schedule to add approximately 40 to 60 EMTs per year until 2024, and to streamline the Training Program to meet the goals of the Power System and PC&M Division.

**2. ACHIEVEMENTS / MILESTONES MET**

- In the FY 21/22, a total of 35 EMTs graduated. Sixteen of eighteen trainees graduated from Class 22A, yielding a graduation rate of 89%.
- The past classes average success rates are based on two calendar years as follows:
  - 2014 to 2015: 70%
  - 2016 to 2017: 85%
  - 2018 to 2019: 89%
  - 2020 to 2021: 75%

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- There are currently ten active trainee classes in the Training Program. Recently, 19 trainees graduated from Class 23A, including three trainees in April, yielding a graduation rate of 95%.
- Due to the modified screening process, there has been an increase in the quality of candidates who have entered the Training Program, yielding a higher graduation rate.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- There is an aggressive hiring plan to add approximately 40 to 60 EMTs per year until 2024 to meet PC&M's Integrated Human Resource Plan staffing goals. Restructuring of the Training Program and an increase in training staff has enabled PSST to move forward with this hiring plan while still maintaining the quality and integrity of the program.

# LADWP RATES METRIC – POWER DISTRIBUTION INFRASTRUCTURE POSITIONS (POWER)

RESPONSIBLE MANAGER: Nazir Fazli

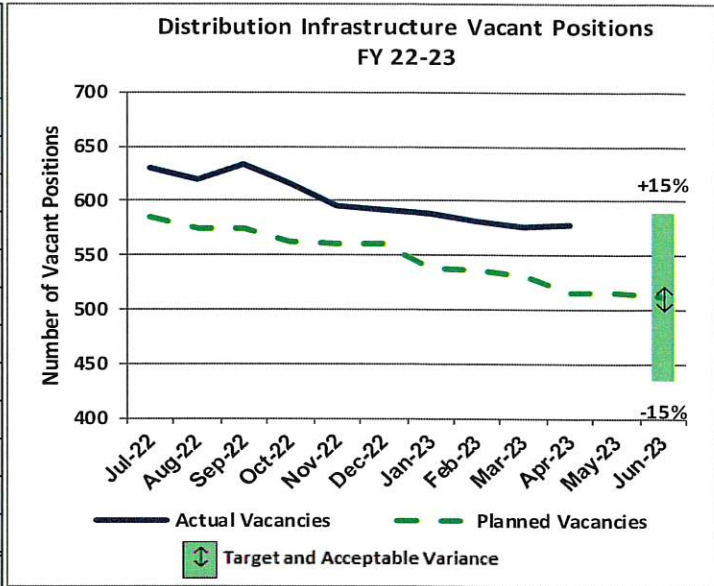
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Number of Full Time Equivalents (FTEs) hired and dedicated to Power Distribution field positions as compared to plan.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Vacant budgeted Power Distribution Infrastructure field positions at 512 or less by the end of the fiscal year, ±15%

STATUS: Within Acceptable Variance

FYTD as of:	Planned Vacancies	Actual Vacancies	Variance		Re-Estimate (If Applicable)
			# Vacancies	%	
Jul-22	585	630	45	7.7%	
Aug-22	574	620	46	8.0%	
Sep-22	574	634	60	10.5%	
Oct-22	563	617	54	9.6%	
Nov-22	561	595	34	6.1%	
Dec-22	561	592	31	5.5%	
Jan-23	539	588	49	9.1%	
Feb-23	537	582	45	8.4%	
Mar-23	531	577	46	8.7%	
Apr-23	516	578	62	12.0%	
May-23	516				
Jun-23	512				
<b>Acceptable Variance</b>			<b>± 15%</b>		



SOURCE OF DATA: Hiring Plan/Annual Personnel Resolution (KPI # 08.05.01.01)

## 1. BACKGROUND / PURPOSE

- Power Distribution Infrastructure Field positions are necessary to meet Power System Reliability and other infrastructure goals.
- Currently, Power Distribution Infrastructure Field positions are assigned to various divisions, including Power Transmission & Distribution (PTD), Power Construction & Maintenance (PCM), and Power System Integrated Support Services (PSISS).
- The target is to reduce vacant budgeted Power Distribution Infrastructure Field positions to 512 or less by the end of the fiscal year.

## 2. ACHIEVEMENTS/MILESTONES MET

- During the month of April, there was a total of 578 vacancies, which was 62 or 12% over planned vacancies.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- The current rate of hiring budgeted positions is within the acceptable variance.

- The vacancy overrun is due to the following:
  - Majority of vacancies are currently being held for employees on emergency appointments, special assignments (LOA's), successful completion of probation, temporary (temp) assignments (Temp 1-5 and Article 33), and trainees on substitute positions.
  - Electrical Mechanic (EM)/Senior EM and Electrical Test Technician (ETT) require completion of a LADWP training program in order to be a qualified candidate. This inhibits our ability to promptly fill these positions.
  - Hiring delays and attrition in Electric Distribution Mechanic (EDM), Electrical Craft Helper (ECH), and Line Maintenance Assistant (LMA) positions.





Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention

- The actual vacancies for Power System increased from 577 in March 2023 to 578 in April 2023 due to the following position movements:

	Actual Vacancies in Mar 2023	Actual Vacancies in Apr 2023	Position Movements
PTD	442	444	Increased by two (2) due to the following: - One Electrical Craft Helper resigning. - One Electrical Craft Helper promoting/transferring to another division.
PCM/PSISS	135	134	Decreased by one (1) due to the following: - One Senior Electrical Mechanic Supervisor retired. - One Senior Electrical Test Technician returned from temp assignment.
<b>Power System</b>	<b>577</b>	<b>578</b>	

**4. MITIGATION PLAN AND/OR RECOMMENDATIONS**

- PTD, PCM, and PSISS will continue to fill all vacant Power Distribution Infrastructure Field positions.

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention 



# LADWP RATES METRIC – Total Renewal Portfolio Standard (Power)

**RESPONSIBLE MANAGER:** Steven Pruett, Power External Energy Resources *SEP* **REPORTING PERIOD:** April 2023

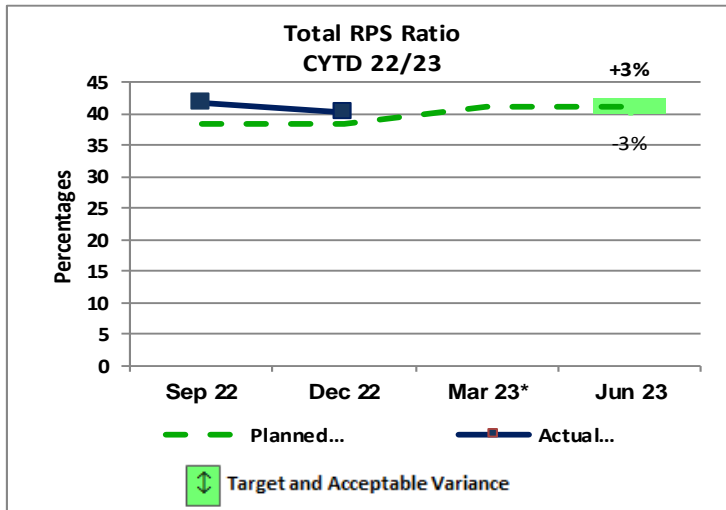
**DEFINITION OF RATES METRIC:** GWH from RPS Resource/GWH of Retail Sales (State Requirement), In Percentages (%)

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = 38.50% for calendar year 2022 and 41.25% for calendar year 2023; Acceptable Variance = ± 3%

**STATUS:** Within Acceptable Variance

CYTD as of:	Planned (%)	Actual (%)	Variance	Re-Estimate (If Applicable)
			%	
Sep 22	38.50	41.70	3.2%	
Dec 22	38.50	40.18	1.7%	
Mar 23*	41.25			
Jun 23	41.25			
<b>Acceptable Variance</b>			± 3%	

\*Actuals for the third quarter of FY 22/23 will be available in June 2023.



**SOURCE OF DATA:** Wholesale Energy Resource Management Group (KPI # 05.01.01.01)

**1. BACKGROUND / PURPOSE**

- Los Angeles Department of Water and Power (LADWP) is on target to meet the 50% Renewable Portfolio Standard (RPS) ratio requirement in 2030, as required by the California Energy Commission (CEC).
- RPS portfolio includes Wind, Solar, Geothermal, Biomass, and Small Hydro.
- To comply with the CEC, RPS percentages are calculated over four calendar-years (2021-2024), not fiscal year or fiscal year-to-date basis. The compliance period quantifies the RPS-eligibility of a publicly owned utility.
- There are other RPS-related Rates Metric Reports for Wind, Solar, and Geothermal.

**2. ACHIEVEMENTS / MILESTONES MET**

- No updates.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- No updates.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Uncertainty in performance of renewable resources, evolving accounting methods, changing regulations, and transmission disruptions are risk factors that can impact the performance of this metric.
- To meet the RPS goals and avoid the risk of non-compliance with the CEC's RPS requirement, LADWP uses targets (forecasts) above the CEC's RPS ratio requirement. This will provide a hedge against the above-mentioned risk factors.
- Excess Renewable Energy Credits (RECs) from one compliance period can be rolled over into the next compliance period.



# LADWP RATES METRIC – Total RPS Cost vs. Plan, By Wind (Power)

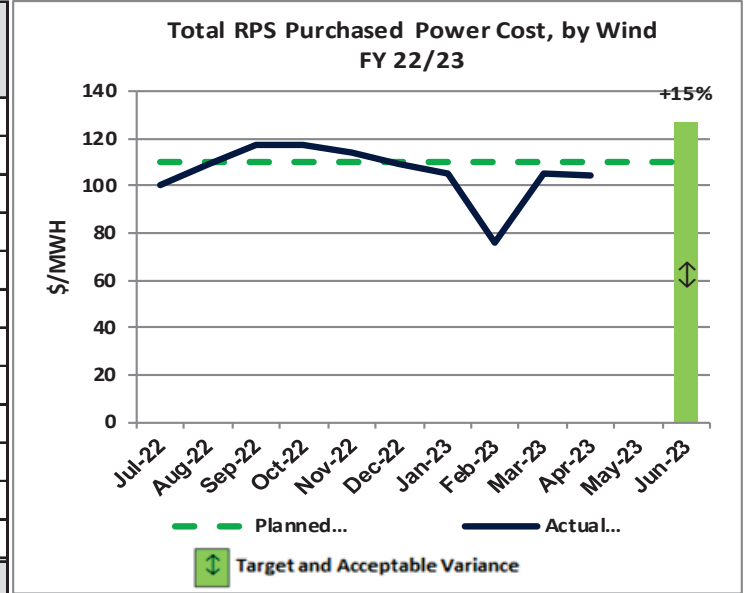
**RESPONSIBLE MANAGER:** Marlon Santa Cruz, PEER External Energy Resources      **REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Total RPS Purchased Power Cost (\$/MWH), Per Power Purchase Agreements (PPA), As Compared To Plan, By Wind

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = \$110.08/MWH; Acceptable Variance = + 15%

**STATUS:** Within Acceptable Variance

FYTD as of:	Planned (\$/MWH)	Actual (\$/MWH)	Variance		Re-Estimate
			\$	%	
Jul-22	110.08	100.01	-10.07	-9.1%	
Aug-22	110.08	109.14	-0.94	-0.9%	
Sep-22	110.08	117.05	6.97	6.3%	
Oct-22	110.08	117.26	7.18	6.5%	
Nov-22	110.08	114.26	4.18	3.8%	
Dec-22	110.08	109.15	-0.93	-0.8%	
Jan-23	110.08	105.38	-4.70	-4.3%	
Feb-23	110.08	75.86	-34.22	-31.1%	
Mar-23	110.08	104.77	-5.31	-4.8%	
Apr-23	110.08	104.25	-5.83	-5.3%	
May-23	110.08				
Jun-23	110.08				
<b>Acceptable Variance</b>			+ 15%		



**SOURCE OF DATA:** Monthly energy invoice per PPA (KPI # 01.03.01.06)

## 1. BACKGROUND / PURPOSE

- PPA = Power Purchase Agreement. The energy cost is calculated at plant's "bus-bar", in dollars per mega-watt-hour (\$/MWH), per executed PPA.
- The aggregated energy costs are the weighted average of seven wind PPAs for which the \$/MWH cost is determined by the seven individual PPAs, but the energy outputs are a function of the individual project's capacity and wind resource availability, which is variable.
- Wind energy supports meeting Renewable Portfolio Standard (RPS) goals. Wind energy is currently estimated to represent 41% of the Calendar Year 2022 RPS portfolio.

## 2. ACHIEVEMENTS / MILESTONES MET

- No updates.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- Actual is within acceptable variance.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- No recommendations at this time.

# LADWP RATES METRIC – Total RPS Cost vs. Plan, By Solar (Power)

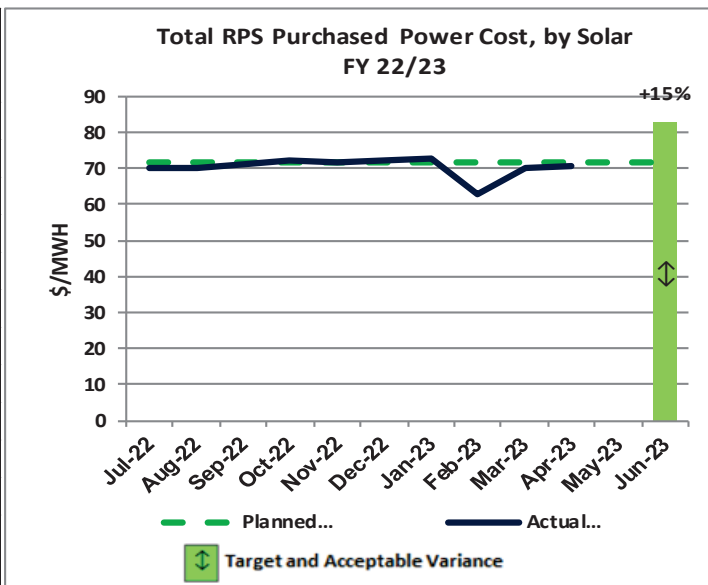
**RESPONSIBLE MANAGER:** Marlon Santa Cruz, PEER External Energy Resources      **REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Total RPS Solar Purchased Power Cost (\$/MWH) as Compared To Plan

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = \$71.93/MWH; Acceptable Variance = + 15%

**STATUS:** Within Acceptable Variance

FYTD as of:	Planned (\$/MWH)	Actual (\$/MWH)	Variance		Re-Estimate
			\$	%	
Jul-22	71.93	70.01	-1.92	-2.7%	
Aug-22	71.93	70.12	-1.81	-2.5%	
Sep-22	71.93	71.38	-0.55	-0.8%	
Oct-22	71.93	72.09	0.16	0.2%	
Nov-22	71.93	71.88	-0.05	-0.1%	
Dec-22	71.93	72.26	0.33	0.5%	
Jan-23	71.93	72.60	0.67	0.9%	
Feb-23	71.93	63.01	-8.92	-12.4%	
Mar-23	71.93	70.18	-1.75	-2.4%	
Apr-23	71.93	70.57	-1.36	-1.9%	
May-23	71.93				
Jun-23	71.93				
<b>Acceptable Variance</b>			+ 15%		



**SOURCE OF DATA:** Monthly energy invoice per PPA (KPI # 01.03.01.17)

## 1. BACKGROUND / PURPOSE

- PPA = Power Purchase Agreement. The energy cost is calculated at plant's "bus-bar", in dollars per mega-watt-hour (\$/MWH), per executed PPA.
- The aggregated energy costs are the weighted average of the solar PPAs for which the \$/MWH cost is fixed by individual PPAs and weighted by actual generation.
- Solar energy supports meeting Renewable Portfolio Standard (RPS) goals. Solar energy is currently estimated to represent 37% of the Calendar Year 2022 RPS portfolio.

## 2. ACHIEVEMENTS / MILESTONES MET

- No updates.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- Actual is within acceptable variance.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- No recommendations at this time.

# LADWP RATES METRIC – Total RPS Cost vs. Plan, By Geothermal (Power)

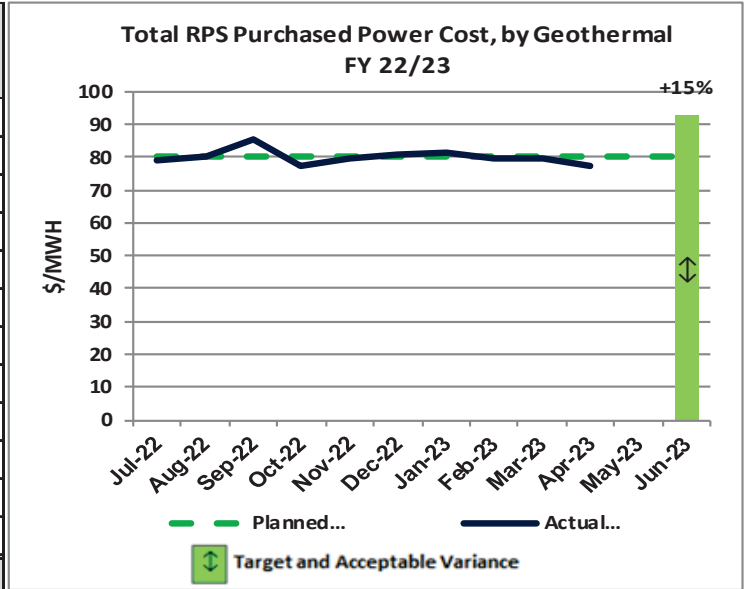
**RESPONSIBLE MANAGER:** Marlon Santa Cruz, PEER External Energy Resources      **REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Total RPS Purchased Power Cost (\$/MWH), Per Power Purchase Agreements (PPA), As Compared To Plan, By Geothermal

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = \$80.46/MWH; Acceptable Variance = + 15%

**STATUS:** Within Acceptable Variance

FYTD as of:	Planned (\$/MWH)	Actual (\$/MWH)	Variance		Re-Estimate
			\$	%	
Jul-22	80.46	79.18	-1.28	-1.6%	
Aug-22	80.46	80.20	-0.26	-0.3%	
Sep-22	80.46	85.25	4.79	6.0%	
Oct-22	80.46	77.55	-2.91	-3.6%	
Nov-22	80.46	79.83	-0.63	-0.8%	
Dec-22	80.46	81.03	0.57	0.7%	
Jan-23	80.46	81.13	0.67	0.8%	
Feb-23	80.46	79.66	-0.80	-1.0%	
Mar-23	80.46	79.42	-1.04	-1.3%	
Apr-23	80.46	77.18	-3.28	-4.1%	
May-23	80.46				
Jun-23	80.46				
<b>Acceptable Variance</b>			+ 15%		



**SOURCE OF DATA:** Monthly energy invoice per PPA (KPI # 01.03.01.18)

**1. BACKGROUND / PURPOSE**

- PPA = Power Purchase Agreement. The energy cost is calculated at plant's "bus-bar", in dollars per mega-watt-hour (\$/MWH), per executed PPA.
- The aggregated energy costs are the weighted average of six geothermal PPAs for which the \$/MWH cost is fixed for firm and imbalance energy. However, the energy outputs are a function of the individual project's capacity and geothermal resource availability, which is variable.
- Geothermal energy supports meeting Renewable Portfolio Standard (RPS) goals. Geothermal energy currently represents 22% of the Calendar Year 2022 RPS portfolio.

**2. ACHIEVEMENTS / MILESTONES MET**

- No updates.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- Actual is within acceptable variance.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- No recommendations at this time.

RP



# LADWP RATES METRIC – Last Signed PPA (\$/MWH) by Technology, Wind (Power)

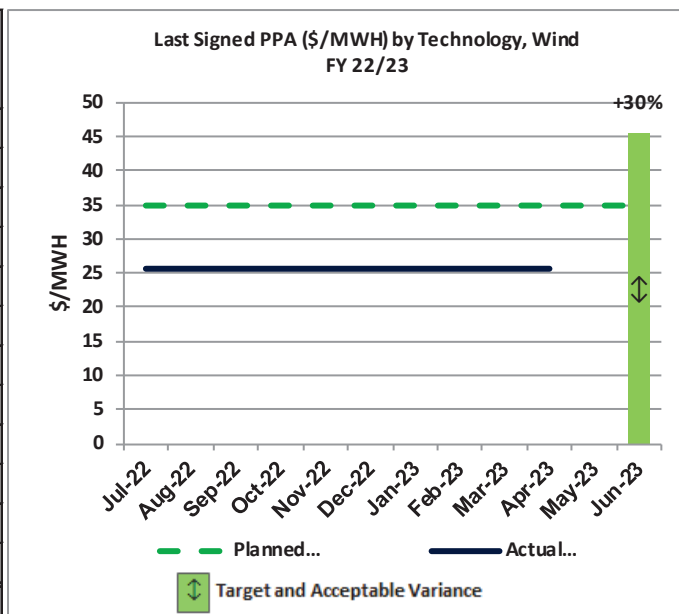
**RESPONSIBLE MANAGER:** Marlon Santa Cruz, Power External Energy Resources      **REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Last Signed PPA (\$/MWH) by Technology, Wind

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = \$35.00/MWH; Acceptable Variance = + 30%

**STATUS:** Within Acceptable Variance

FYTD as of:	Planned (\$/MWH)	Actual (\$/MWH)	Variance		Re-Estimate
			\$	%	
Jul-22	35.00	25.50	-9.50	-27.1%	
Aug-22	35.00	25.50	-9.50	-27.1%	
Sep-22	35.00	25.50	-9.50	-27.1%	
Oct-22	35.00	25.50	-9.50	-27.1%	
Nov-22	35.00	25.50	-9.50	-27.1%	
Dec-22	35.00	25.50	-9.50	-27.1%	
Jan-23	35.00	25.50	-9.50	-27.1%	
Feb-23	35.00	25.50	-9.50	-27.1%	
Mar-23	35.00	25.50	-9.50	-27.1%	
Apr-23	35.00	25.50	-9.50	-27.1%	
May-23	35.00				
Jun-23	35.00				
<b>Acceptable Variance</b>			<b>+ 30%</b>		



**SOURCE OF DATA:** Executed Power Purchase Agreement (KPI # 01.03.01.22)

## 1. BACKGROUND / PURPOSE

- PPA = Power Purchase Agreement. The \$43.00 energy cost is accounted for at the Navajo 500kV switchyard, in dollars per mega-watt-hour (\$/MWh).
- The target is based on CPUC’s 2021 Padilla Report, which reflects current trends and does not include transmission costs.

## 2. ACHIEVEMENTS / MILESTONES MET

- The last signed PPA is Red Cloud Wind which was executed on 11/02/2020.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- Actual is within acceptable variance.
- The reported value of \$25.50 is a final calculated contract cost after removing an estimated transmission cost amount of \$17.50.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- No recommendations at this time.

RP

# LADWP RATES METRIC – Last Signed PPA (\$/MWH) by Technology, Solar (Power)

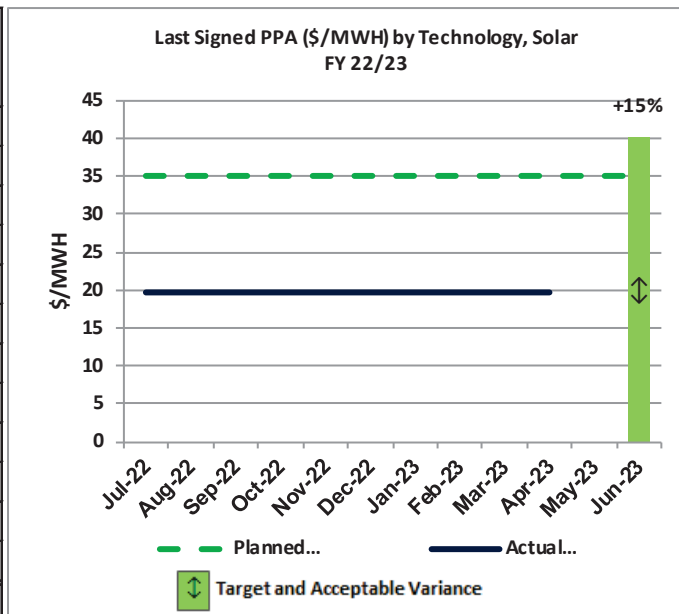
RESPONSIBLE MANAGER: Marlon Santa Cruz, Power External Energy Resources      REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Last Signed PPA (\$/MWH) by Technology, Solar

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = \$35.00/MWH; Acceptable Variance = + 15%

STATUS: Within Acceptable Variance

FYTD as of:	Planned (\$/MWH)	Actual (\$/MWH)	Variance		Re-Estimate
			\$	%	
Jul-22	35.00	19.67	-15.33	-43.8%	
Aug-22	35.00	19.67	-15.33	-43.8%	
Sep-22	35.00	19.67	-15.33	-43.8%	
Oct-22	35.00	19.67	-15.33	-43.8%	
Nov-22	35.00	19.67	-15.33	-43.8%	
Dec-22	35.00	19.67	-15.33	-43.8%	
Jan-23	35.00	19.67	-15.33	-43.8%	
Feb-23	35.00	19.67	-15.33	-43.8%	
Mar-23	35.00	19.67	-15.33	-43.8%	
Apr-23	35.00	19.67	-15.33	-43.8%	
May-23	35.00				
Jun-23	35.00				
Acceptable Variance			+ 15%		



SOURCE OF DATA: Executed Power Purchase Agreement (KPI # 01.03.01.23)

## 1. BACKGROUND / PURPOSE

- PPA = Power Purchase Agreement. The \$39.62 energy cost is accounted for at the plant’s “bus-bar”, in dollars per mega-watt-hour (\$/MWH).
- The target is based on CPUC’s 2021 Padilla Report, which reflects current trends and does not include the cost of the energy storage adder.

## 2. ACHIEVEMENTS / MILESTONES MET

- The last signed solar PPA included battery storage.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- Actual is within acceptable variance.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- No recommendations at this time.

RP

# LADWP RATES METRIC – Last Signed PPA (\$/MWH) by Technology, Geothermal (Power)

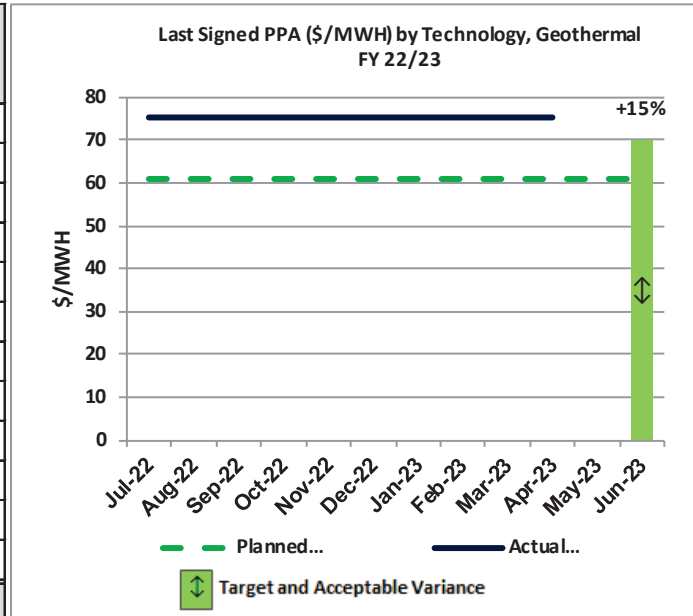
**RESPONSIBLE MANAGER:** Marlon Santa Cruz, Power External Energy Resources      **REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Last Signed PPA (\$/MWH) by Technology, Geothermal

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = \$61.00/MWH; Acceptable Variance = + 15%

**STATUS:** Outside Acceptable Variance

FYTD as of:	Planned (\$/MWH)	Actual (\$/MWH)	Variance		Re-Estimate
			\$	%	
Jul-22	61.00	75.50	14.50	23.8%	
Aug-22	61.00	75.50	14.50	23.8%	
Sep-22	61.00	75.50	14.50	23.8%	
Oct-22	61.00	75.50	14.50	23.8%	
Nov-22	61.00	75.50	14.50	23.8%	
Dec-22	61.00	75.50	14.50	23.8%	
Jan-23	61.00	75.50	14.50	23.8%	
Feb-23	61.00	75.50	14.50	23.8%	
Mar-23	61.00	75.50	14.50	23.8%	
Apr-23	61.00	75.50	14.50	23.8%	
May-23	61.00				
Jun-23	61.00				
<b>Acceptable Variance</b>			<b>+ 15%</b>		



**SOURCE OF DATA:** Executed Power Purchase Agreement (KPI # 01.03.01.24)

## 1. BACKGROUND / PURPOSE

- PPA = Power Purchase Agreement. The energy cost is calculated at plant's "bus-bar", in dollars per mega-watt-hour (\$/MWh), per executed PPA.
- The last signed geothermal PPA was executed in June 2017 for \$75.50/MWh.
- The target is based on CPUC's 2021 Padilla Report, which reflects current trends.

## 2. ACHIEVEMENTS / MILESTONES MET

- No updates.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- Actual is above the target due to current market trends.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- No recommendations at this time.

RP



# LADWP RATES METRIC – Power System Reliability Program

## Generation, Capital (Power)

RESPONSIBLE MANAGER: Robert Fick, Power Supply Operations

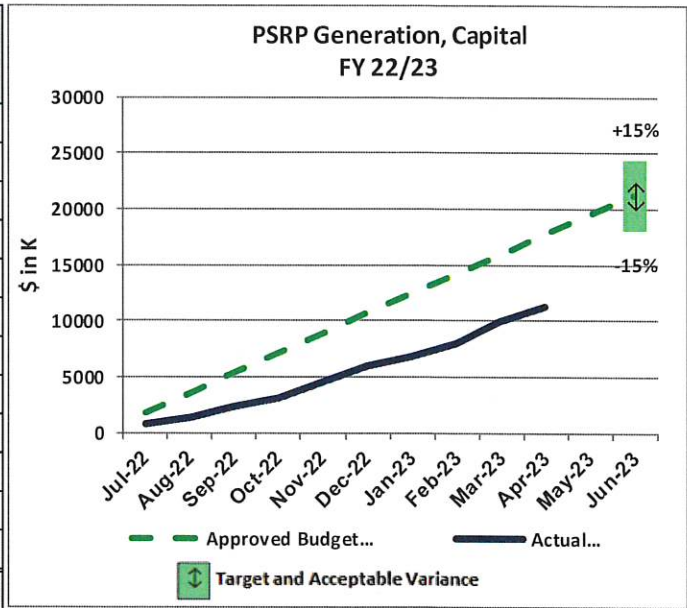
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board Approved Annual Budget vs. Actual Expenditures For PSRP Generation, Capital

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = \$21,271K; Acceptable Variance = ± 15%

**STATUS:** Outside Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	1,772.6	781.0	-991.6	-55.9%	
Aug-22	3,545.2	1,311.0	-2,234.2	-63.0%	
Sep-22	5,317.8	2,299.0	-3,018.8	-56.8%	
Oct-22	7,090.3	2,993.0	-4,097.3	-57.8%	
Nov-22	8,862.9	4,471.0	-4,391.9	-49.6%	
Dec-22	10,635.5	5,972.0	-4,663.5	-43.8%	
Jan-23	12,408.1	6,831.0	-5,577.1	-44.9%	
Feb-23	14,180.7	8,006.0	-6,174.7	-43.5%	
Mar-23	15,953.3	10,046.0	-5,907.3	-37.0%	
Apr-23	17,725.8	11,256.0	-6,469.8	-36.5%	
May-23	19,498.4				
Jun-23	21,271.0				
Acceptable Variance			± 15%		



SOURCE OF DATA: FI 21186 (KPI # 01.03.01.08)

### 1. BACKGROUND / PURPOSE

- This metric measures the planned vs. actual expenditures for Generation capital activities, including major unit overhauls, transformer replacements, and replacement of a 6MW hydro power plant. These activities will ensure safety and maximize reliability, availability, efficiency, and extend the life of generating assets.

### 2. ACHIEVEMENTS / MILESTONES MET

- In July 2022, crews successfully installed the 550-ton Rotor at Castaic Power Plant (CPP) Generator Stator of Unit 1. The CPP Station Service Bank 2 Transformer was placed in-service. Completion of this multi-year project provides increased flexibility and redundancy for pump-starting hydro-electric generating units, which translates to increased reliability for units to meet the needs of the Power System and rate payers.
- In August 2022, repairs to CPP Generator Stator of Unit 1 were completed; however, the 230kV Main Bank Transformer tripped during startup and testing of the unit. Repairs are anticipated to be complete by September 2022.
- In September 2022, repairs to the 230kV Main Bank Transformer for CPP Generator Stator

Unit 1 were completed and unit placed back in service on September 16, 2022. Completing this work is important for the long-term reliable operation of the hydro-electric generator.

- In October 2022, replacement of the CPP failed. E51 circuit breaker was completed resulting in Unit 4 being returned back to service in all modes on October 4, 2022. CPP crews also completed the 2500-hour Service, Inspection and Repair (SIR) work for Unit 4. Unit returned back to service in all modes on October 27, 2022. Completing this work is important for the long-term reliable operation of the hydro-electric generator.
- In November 2022, CPP crews successfully completed a 9-day maintenance and inspection outage on Unit 6. Completing this work is important for the long-term reliable operation of the hydro-electric generator.
- In December 2022, crews successfully completed a 9-day maintenance and inspection outage on Unit 1 and Unit 3. Completing this work is important for the long-term reliable operation of the hydro-electric generator. On December 17, 2022, CPP crews and contract divers successfully completed a scheduled on-day all-plant outage that resulted in retrofitting Cooling Water Valves for Unit 4, Standby Header, and Unit 5. The valves, previously

Within Acceptable Variance   Outside Acceptable Variance   Exceeds Target   Needs Attention



failing, now function properly and can be used to properly isolate the Cooling Water System from Elderberry Reservoir when future repairs are required. Completing this work is important for the safety of personnel and the plant.

- In January 2023, CPP crews have completed the fall outage season with finishing the scheduled inspection and maintenance outage for Unit 7. Completing this work is important for the long-term reliable operation of the hydro-electric generator. On January 9, 2023, and January 10, 2023, heavy rainstorms caused multiple hill slides and mudflows to the access roads at CPP, which restricted access to the Outlet Tower for releasing water from Elderberry Reservoir to Castaic Lake. Through the significant efforts of plant personnel and Fleet, the road was cleared and access established on January 10, 2023, resulting in meeting state requirements to pass water. This is significant to ensure CPP meets the state and regulatory requirements to pass water to Castaic Lake.
- In February 2023, CPP crews worked on the repair of Unit 2
- On March 23, 2023, Unit 2 was returned to service following repairs to the shaft alignment. The unit is available all modes except a synchronous condenser since shaft vibration is excessive in that mode.
- On April 15, 2023, a 15-hour CPP all plant outage was conducted in which the remaining cooling water isolation valves on Unit 1, Unit 2, and Unit 3 were successfully repaired. This ensures the safety of the facility by being able to isolate the cooling water system from Elderberry Reservoir when needed for maintenance or emergencies. On April 23, Castaic-Haskell Line 3 was placed in service for the first time. This new 230kV transmission line provides redundancy to Castaic-Haskell Lines 1 and 2.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- \$3M underrun is caused by Job B2231 – Castaic Power Plant (CPP) Major Inspection Overhauls. Underrun was caused by reduction of Mechanical Repair Services from double shift to single shift. Some of this underrun was offset by overrun due to contract work needed for the repair of Stator

on Castaic Unit 5 which arrived in January 2023 and General Electric (GE) finished repairs in April. Payment for the materials and services for GE is anticipated by June.

- \$3.3M underrun is caused by Job B2222 – Generation Transformer Replacement Project due to delay of transformer delivery to next fiscal year.
- \$900K underrun is caused by Job B2225 – Aqueduct Power Plant (APP) Major Inspection Overhauls due to cranes used to perform the inspections and overhauls being out of order causing a delay in the scheduled work

Total Project Approved From Inception to FY29/30	\$342.0M
Total Project Estimates	\$290.5M
Projects Approved to Date	\$218.9M
Project Actuals to Date	\$128.2M

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Completion of the CPP Major Overhaul by July 2023.
- Cranes at APP will not be fixed until 2024 due to lengthy bid process.
- More resources will be allocated to CPP electrical and mechanical repair work.

# LADWP RATES METRIC – PSRP Transmission, Capital (Power)

RESPONSIBLE MANAGER: Jason Hills  
Power System Engineering Division

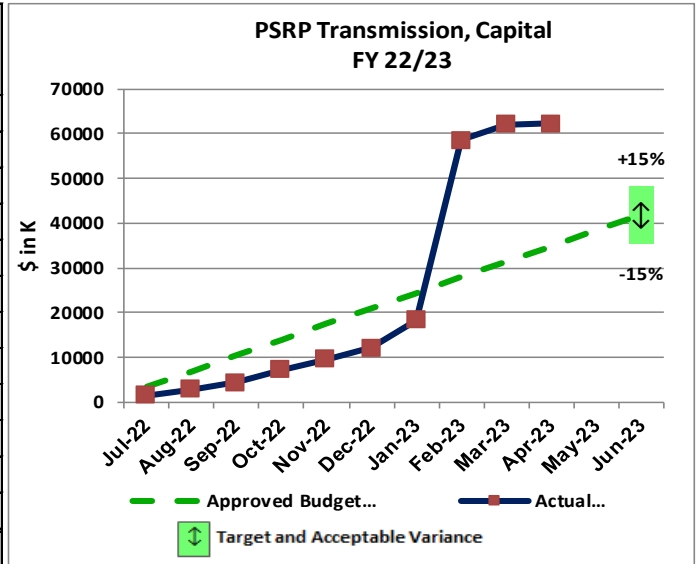
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board Approved Annual Budget vs. Actual Expenditures for PSRP Transmission, Capital

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = \$41,792K; Acceptable Variance = ± 15%

**STATUS:** Outside Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate
			\$ in K	%	
Jul-22	3,482.6	1,462.1	(2,020.5)	-58.0%	
Aug-22	6,965.3	2,779.0	(4,186.3)	-60.1%	
Sep-22	10,447.9	4,325.0	(6,122.9)	-58.6%	
Oct-22	13,930.5	7,184.0	(6,746.5)	-48.4%	
Nov-22	17,413.2	9,502.0	(7,911.2)	-45.4%	
Dec-22	20,895.8	12,191.0	(8,704.8)	-41.7%	
Jan-23	24,378.4	18,381.0	(5,997.4)	-24.6%	
Feb-23	27,861.1	58,592.0	30,730.9	110.3%	
Mar-23	31,343.7	61,990.0	30,646.3	97.8%	
Apr-23	34,826.3	62,244.0	27,417.7	78.7%	
May-23	38,309.0				
Jun-23	41,791.6				
<b>Acceptable Variance</b>			± 15%		



SOURCE OF DATA: FI 21212 (KPI # 01.03.01.10).

**1. BACKGROUND / PURPOSE**

- Expenditures for various Power System Reliability Program (PSRP) transmission capital projects, which includes overhead and underground transmission projects, annual improvements such as installation of maintenance hole lids, and all projects under FI 21212.

**2. ACHIEVEMENTS / MILESTONES**

- As of August, the last maintenance hole lid restraint was installed and this transmission PSRP goal was completed.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- Actual costs were over the approved budget by 78.7%, which is outside the acceptable variance.
- Overrun is primarily due to a major milestone payment made to the contractor for Scattergood-Olympic Cable B Install (Job O1406), and the payment made for Cable B Bypass work as a change order for the same contract regarding this job. No payment was made in April, lowering the variance from the previous month.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Continue to support progress on these jobs according to their respective milestone schedules.

Total Project Approved From Inception to FY29/30	1,730.6M
Project Approved to Date	1,313.0M
Project Actuals to Date	1,203.2M

Within Acceptable Variance   Outside Acceptable Variance   Exceeds Target   Needs Attention



# LADWP RATES METRIC – PSRP Transmission, O&M (Power)

RESPONSIBLE MANAGER: Ruben Hauser, Power Transmission and Distribution

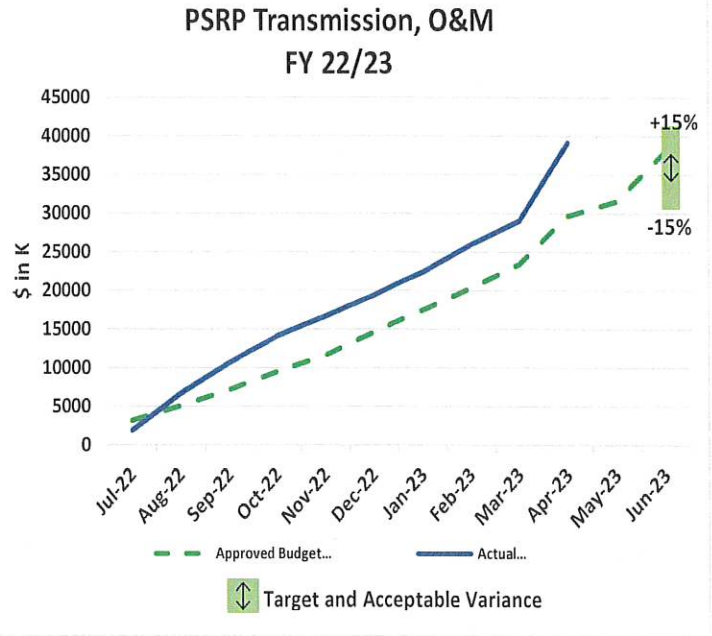
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board Approved Annual Budget vs. Actual Expenditures For PSRP Transmission, O&M

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = \$38,029K; Acceptable Variance = ± 15%

STATUS: Outside Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	3,150.0	1,901.0	-1,249.0	-39.7%	
Aug-22	5,050.0	6,671.0	1,621.0	32.1%	
Sep-22	7,150.0	10,653.0	3,503.0	49.0%	
Oct-22	9,525.0	14,094.0	4,569.0	48.0%	
Nov-22	11,579.9	16,719.0	5,139.1	44.4%	
Dec-22	14,579.9	19,363.0	4,783.1	32.8%	
Jan-23	17,455.4	22,396.0	4,940.6	28.3%	
Feb-23	20,281.0	25,935.0	5,654.0	27.9%	
Mar-23	23,407.5	28,989.0	5,581.5	23.8%	
Apr-23	29,640.0	39,123.0	9,483.0	32.0%	
May-23	31,541.2				
Jun-23	38,029.3				
<b>Acceptable Variance</b>			<b>±15%</b>		



SOURCE OF DATA: FI 301-3132 (KPI # 01.03.01.11)

**1. BACKGROUND / PURPOSE**

- To maintain facilities generally consisting of overhead and underground high voltage electric circuitry used to transport electricity in bulk quantities from generation facilities to distribution facilities over long distances for system reliability. Power Transmission & Distribution (PTD) operates and maintains overhead transmission lines extending over 6,400 circuit miles throughout the Western United States and another 120 miles of underground transmission in the Los Angeles area.

static insulators. Due to poor access, HEC methods were used to catch up on long overdue inspections and insulator replacements. HEC work involves the cost of 2 regular pilots, 1 chief pilot, a fleet driver for the fuel truck and a helicopter mechanic on top of Transmission Construction and Maintenance crew costs. The cost of these additional personnel and equipment contributed to the overrun.

**2. ACHIEVEMENTS / MILESTONES MET**

- Power System Reliability Program (PSRP) aids in the hardening and replacement of critical infrastructure.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- The KPI is outside the 15% threshold set for its goal.
- April 2023 YTD actuals are over, due to the following:
  - The overrun is primarily due to the Overhead Transmission Lines O&M (Job B1232) and the Human External Cargo (HEC) work that was performed on the Mead Victorville Line. Crews performed tower inspections and replaced flashed

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- PTD management will monitor this FI and address any variations.

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention

# LADWP RATES METRIC – PSRP Substation, Capital (Power)

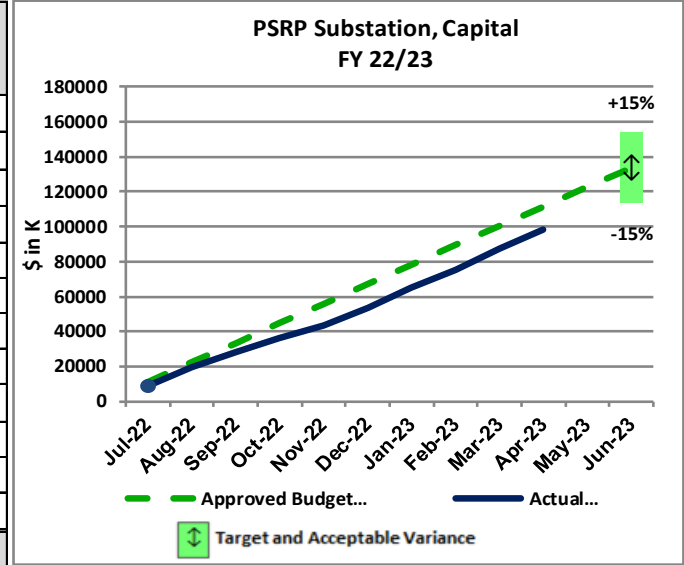
**RESPONSIBLE MANAGER:** Tesfaye Zeleke  
Power System Engineering Division

**REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Board Approved Annual Budget vs. Actual Expenditures for PSRP Substation, Capital  
**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = \$133,922.0K; Acceptable Variance = ± 15%

**STATUS:** Within Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (\$ in K)
			\$ in K	%	
Jul-22	11,160.2	9,005.0	-2,155.2	-19.3%	
Aug-22	22,320.3	19,758.0	-2,562.3	-11.5%	
Sep-22	33,480.5	28,107.0	-5,373.5	-16.0%	
Oct-22	44,640.6	35,911.0	-8,729.6	-19.6%	
Nov-22	55,800.8	43,473.0	-12,327.8	-22.1%	
Dec-22	66,960.9	53,244.0	-13,716.9	-20.5%	
Jan-23	78,121.1	65,269.0	-12,852.1	-16.5%	
Feb-23	89,281.3	75,131.0	-14,150.3	-15.8%	
Mar-23	100,441.4	87,168.0	-13,273.4	-13.2%	
Apr-23	111,601.6	98,294.0	-13,307.6	-11.9%	
May-23	122,761.8				
Jun-23	133,922.0				
<b>Acceptable Variance</b>			<b>± 15%</b>		



**SOURCE OF DATA:** FI 21195 (KPI # 01.03.01.13).

**1. BACKGROUND / PURPOSE**

- Substation life extension, expansions, upgrades and equipment replacements (Transformers, Circuit Breakers, Batteries, Regulators, Relays, and RTUs) to improve substation reliability, availability and capacity.

**2. ACHIEVEMENTS / MILESTONES**

- Transformer, circuit breaker replacement, substation automation, feeders and trunklines design progress is captured in the completed Construction Work Packages (CWP) KPIs in the table below:

KPI	PSRP Replacements or Upgrades:	FYTD Completed CWP Actual	FYTD Completed CWP Target	FYE Completed CWP Target
<b>TRANSFORMER REPLACEMENT:</b>				
04.01.01.76	Extra High Voltage (high side >230kV – Receiving Station (RS), Switching Station (SS), High Voltage Direct Current Converter Stations)	0	1	2
04.01.01.81	High Voltage Transformers (high side 100kV to 230kV - RS, SS)	2	2	3
04.01.01.77	Medium Voltage Transformers (high side below 100kV – Distributing Station - DS)	12	23	29
<b>CIRCUIT BREAKER REPLACEMENT:</b>				
04.01.01.78	Transmission Circuit Breakers (>100kV - RS, SS, High Voltage Alternate Current Switchyards)	2	12	15
04.01.01.79	Sub-transmission Circuit Breakers (34.5kV - RS, DS)	7	50	59
04.01.01.80	Distribution Circuit Breakers (4.8kV - DS)	19	61	75
<b>SUBSTATION AUTOMATED:</b>				
04.01.03.03	Issue Substation Automation CWP	0	10	12
<b>FEEDERS AND TRUNKLINES:</b>				
04.01.01.82	34.5kV Line Positions (Reported Quarterly)	0	2	4
04.01.01.83	4.8kV Feeder Positions (Reported Quarterly)	14	18	24
<b>BATTERY SYSTEMS:</b>				
04.01.01.87	Substation Battery Systems (RS, DS)	1	12	15

Within Acceptable Variance  
 Outside Acceptable Variance  
 Exceeds Target  
 Needs Attention



- Transformers, circuit breakers replacement, substations automation, feeders and trunklines construction progress is captured in the table below

PSRP Replacements or Upgrades:	FYTD Actual Placed In-serviced
<b>TRANSFORMER REPLACEMENT:</b>	
Extra High Voltage (high side >230kV – Receiving Station (RS), Switching Station (SS), High Voltage Direct Current Converter Stations)	1
High Voltage Transformers (high side 100kV to 230kV - RS, SS)	1
Medium Voltage Transformers (high side below 100kV – Distributing Station - DS)	7
<b>CIRCUIT BREAKER REPLACEMENT:</b>	
Transmission Circuit Breakers (>100kV - RS, SS, High Voltage Alternate Current Switchyards)	4
Sub-transmission Circuit Breakers (34.5kV - RS, DS)	6
Distribution Circuit Breakers (4.8kV - DS)	25
<b>SUBSTATION AUTOMATED:</b>	
Distributing or Receiving Station Upgrade/Automation	2
<b>FEEDERS AND TRUNKLINES:</b>	
34.5kV Line Positions (Reported Quarterly)	0
4.8kV Feeder Positions (Reported Quarterly)	2
<b>BATTERY SYSTEMS:</b>	
Substation Battery Systems (RS, DS)	0

Additional year-to-date achievements and milestones include:

- Substation Equipment Life Extensions:** (9) DS transformer Cans, (140) 34.5 kV circuit breakers and (18) 4.8kV circuit breakers completed.

### 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- This Functional Item (FI) is currently underspending due to a lack of Construction and Test Lab resources and competing capital jobs. It is critical that divisions such as Power Construction and Maintenance (PCM) be able to hire additional Construction and Test Lab resources and backfill existing vacancies to increase the number of capital jobs that are able to be worked on. There are a number of existing vacancies, and PCM is working progressively to remedy, backfill the vacancies, and to support Capital Projects.
  - Currently, Electrical Construction (EC) has two methods for acquiring journey-level resources for capital work, PCM's Electrical Mechanic Training Center (EMTC) for permanent employees, Full-timeTEs), and hiring temporary employees, (exempts), from Local 18
  - In 2022, EC began working with Local 18 to ramp up hiring of exempts for specific projects, with the intent of using the new employees for low voltage, electrician type work, and moving our long term exempts to PSRP and Major Projects.
  - EC will add new permanent employees as follows (approximate numbers) from the EMTC:
    - 2023: 25
    - 2024: 10
    - 2025: 22
    - 2026: 25
    - 2027: 30
    - 2028: 40
  - EC is also expected to begin an accelerated Electrical Mechanic program. The program is in the development phase. No new employees are expected until 2026.
- FI 211-95 includes Annual (perpetual) jobs, so single estimated lifetime expenditure does not apply.

Total Project Approved from Inception to FY29/30	\$2,997.5M
Project Approved to Date	\$1,934.2M
Project Actuals to Date	\$1,609.0M

Within Acceptable Variance ■ Outside Acceptable Variance ■ Exceeds Target ■ Needs Attention ■

4. **MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Conduct coordination meetings with various supporting divisions to align resources from the planning, design, procurement, construction, and commissioning phases of projects.
- Perform long-term planning to identify future resource needs to support the Substation Power System Reliability Program.
- Convene bi-monthly Power System Resiliency planning, design, construction, and commissioning meetings necessary to elevate priority of substation reliability jobs.
- Continue to progress most other Substation Power System Reliability Program jobs as resources allow.

# LADWP RATES METRIC – PSRP Substation, O&M (Power)

**RESPONSIBLE MANAGER:** Jonathan Fonti, Power System Integrated Support Services Division

**REPORTING PERIOD:** April 2023

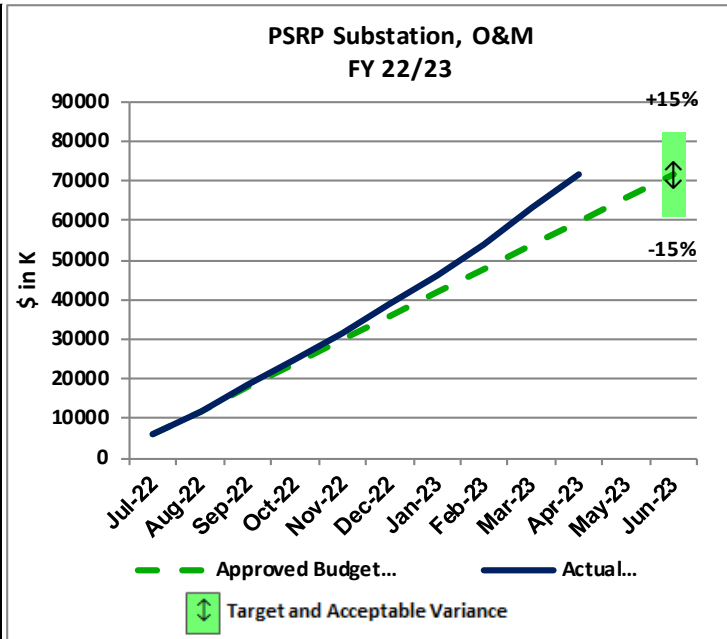
*Jonathan Fonti*

**DEFINITION OF RATES METRIC:** Budget Approved Annual Budget vs. Actual Expenditures for PSRP Substation, O&M

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = \$71,788K; Acceptable Variance = ± 15%

**STATUS:** Outside Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate
			\$ in K	%	
Jul-22	5,982	6,016	35	0.6%	
Aug-22	11,963	11,742	(221)	-1.8%	
Sep-22	17,944	18,366	421	2.4%	
Oct-22	23,926	24,994	1,068	4.5%	
Nov-22	29,908	31,419	1,511	5.1%	
Dec-22	35,890	38,675	2,785	7.8%	
Jan-23	41,871	46,013	4,141	9.9%	
Feb-23	47,853	53,955	6,102	12.8%	
Mar-23	53,835	63,474	9,639	17.9%	
Apr-23	59,816	71,525	11,709	19.6%	
May-23	65,802				
Jun-23	71,788				
<b>Acceptable Variance</b>			± 15%		



**SOURCE OF DATA:** FI 301-3201 (KPI # 01.03.01.14)

## 1. BACKGROUND/PURPOSE

- Substation operations and maintenance (O&M) activities are a critical component in the Department's ability to provide continued safe and reliable power. This metric measures the planned vs. actual expenditures for O&M activities for Substation Operations in the Metro, West Los Angeles/South Los Angeles, and Valley areas, including the switching and maintenance of communication equipment.
- Electrical Station Maintenance (ESM) serves as facility manager of over 5,000 facilities in the Los Angeles basin and is responsible for maintenance and for staying in compliance with California Public Utility Commission (CPUC) regulatory obligations. As part of this compliance, ESM performs inspections for all facilities as required by CPUC. For example, CPUC General Order 174 requires that ESM perform monthly inspections on all Distributing Stations on a monthly basis.

## 2. ACHIEVEMENTS/MILESTONES MET

- See attached Supplemental Summary for the monthly breakdown of restorations and work completed

## 3. PERFORMANCE/VARIANCE ANALYSIS & YEAR END PROJECTION

Overall overrun is mainly attributed to overtime labor (CE11) and allocations for equipment repairs, restorations, and emergency response efforts at various Receiving, Distributing, and Customer Stations system-wide. Also, materials and supplies (CE41) expenditures purchased for cable replacement projects will be corrected by Journal Voucher by fiscal year-end. Individual reimbursements anticipated by year-end will decrease overrun. Overrun breakdown: OT: \$2.8M, Materials: \$1.9M, and IND Reimbursements: \$3.1M. ESM has been performing 4.8kV Circuit Breakers Preventative Maintenance in all areas to meet the two-year target and to assure safety and reliability for Feeder Circuits.

## 4. MITIGATION PLAN AND/OR RECOMMENDATIONS

- Electrical Mechanics (EMs) and Electrical Testers that support this FI can only be hired after completing the corresponding training programs. ESM competes with other sections to hire EMs. In July & October 2022 combined, ESM received 14 new EMs from the Training Center and 7 additional new EMs in February 2023.

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention

## ACHIEVEMENTS / MILESTONES MET

The following table details the monthly breakdown of Substation O&M activity since JULY 2022.

	JULY 2022	AUG 2022	SEPT 2022	OCT 2022	NOV 2022	DEC 2022	JAN 2023	FEB 2023	MAR 2023	APR 2023	MAY 2023	JUNE 2023	TOTAL
<b>NO. OF RESTORATIONS OF CUSTOMER CIRCUITS:</b>													
Receiving Stations (RS) Circuit Outages	28	41	58	41	57	41	48	65	55	26			460
Distributing Station (DS) Circuit Outages	67	67	117	76	118	62	102	194	138	77			1018
5-kV Circuit Grounds	43	55	81	37	66	50	160	116	140	62			810
<b>NO. OF INSULATOR WASHINGS:</b>													
Generating Stations	1	0	0	0	0	0	1	0	0	0			2
Receiving Stations	4	5	6	6	6	3	4	2	3	6			45
Distributing Stations	14	17	12	15	4	7	12	13	12	18			124

\*Achievements / Milestones met for the PSRP Substation O&M ( Power) Rates Metric

# LADWP RATES METRIC – PSRP Distribution, Capital (Power)

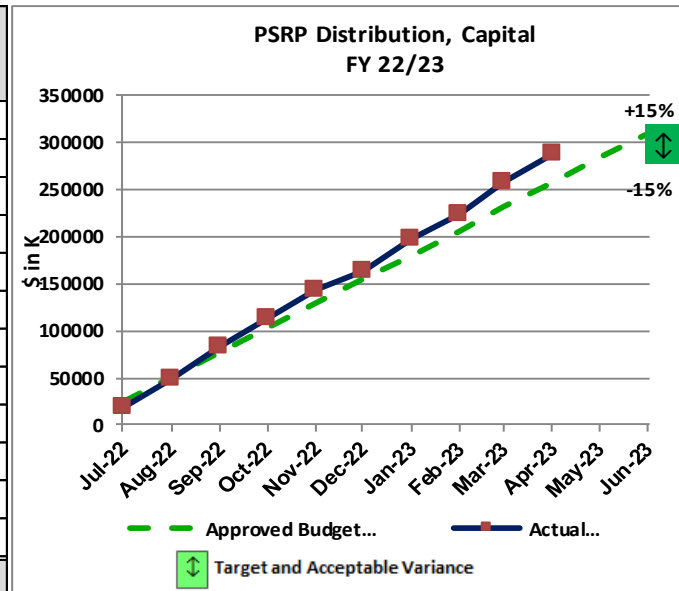
RESPONSIBLE MANAGER: Vincent Zabukovec *Vincent Zabukovec*  
Power System Engineering Division

REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board Approved Annual Budget vs. Actual Expenditures For PSRP Distribution, Capital  
TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = \$309,787K; Acceptable Variance = ± 15%

STATUS: **Within Acceptable Variance**

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate
			\$ in K	%	
Jul-22	25,815.6	19,995.0	-5,820.6	-22.5%	
Aug-22	51,631.2	48,279.0	-3,352.2	-6.5%	
Sep-22	77,446.7	83,592.0	6,145.3	7.9%	
Oct-22	103,262.3	112,634.0	9,371.7	9.1%	
Nov-22	129,077.9	142,824.0	13,746.1	10.6%	
Dec-22	154,893.5	164,409.0	9,515.5	6.1%	
Jan-23	180,709.1	197,193.0	16,483.9	9.1%	
Feb-23	206,524.6	224,092.0	17,567.4	8.5%	
Mar-23	232,340.2	258,995.0	26,654.8	11.5%	
Apr-23	258,155.8	288,425.0	30,269.2	11.7%	
May-23	283,971.4				
Jun-23	309,787.0				
Acceptable Variance			± 15%		



SOURCE OF DATA: FI 21190 (KPI # 01.03.01.15)

## 1. BACKGROUND / PURPOSE

- Table above is a summary of expenditures for all Power System Reliability Program (PSRP) distribution capital projects.
- Below is the approved budget % of four major functions:
  - Transformers: 4% (Jobs P6309 & P6394)
  - Poles: 41% (Job P6322)
  - Crossarms: 6% (Job P6318)
  - Cables: 19% (Job P6306)

## 2. ACHIEVEMENTS / MILESTONES MET

- The Distribution Reliability spent 112% of the budget through the month of April to work on and complete the following:
  - New rack and bank installation RS-Rinaldi, RS-B and RS-M
  - 1,382 transformer installations
  - 3,100 pole replacements
  - 9,336 deteriorated crossarm replacements
  - 30.5 circuit-mile of cable replacements
  - 10,748 FIX-IT tickets (Jobs P6318, P6322, P6394, P6306 & O1357)
  - Work continued on Owens Valley – overhead/underground installations and removals, asbestos removals, trouble ticket repairs and service restorations due to outages.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- Variance through the month of April is \$30.3M, 11.7% over budget. This is due to District crews focusing resources on PSRP distribution capital projects such as reconditioning, cable replacements, transformer replacements, crossarm replacements, pole replacements and vault replacements. Priorities are determined by current area outages and severity, customer complaints regarding outages and areas identified as needing repairs or system growth upgrades. As such, the top priorities are working to restore outages suffered by the customers affecting Permanent Electric Service Restoration (Job P6324) and subsequently, repairing and replacing the underground infrastructure to improve reliability Cable Replacement (Job P6306).

Total Project Approved From Inception to FY29/30	\$6,601.5M
Projects Approved to Date	\$4,141.5M
Project Actuals to Date	\$3,770.8M

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- No mitigation plan at this point.

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention

# LADWP RATES METRIC – PSRP Distribution, O&M (Power)

RESPONSIBLE MANAGER: Ruben Hauser, Power Transmission and Distribution

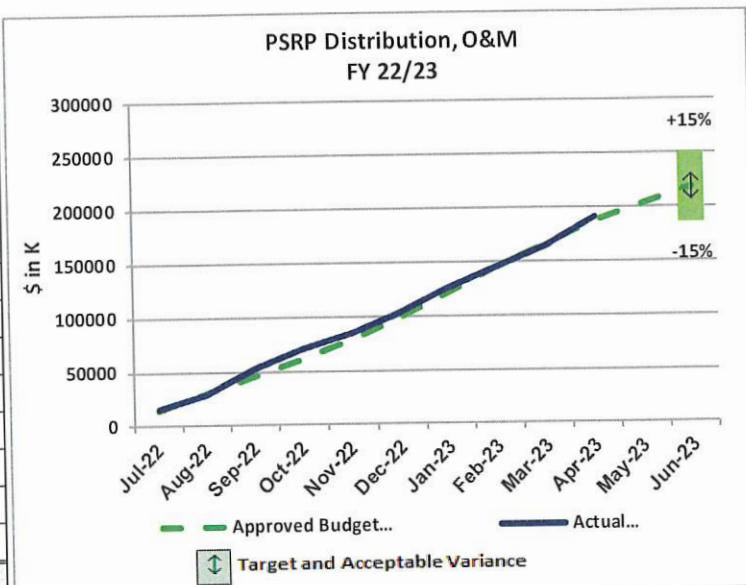
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board Approved Annual Budget vs. Actual Expenditures For PSRP Distribution, O&M

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = \$218,221K; Acceptable Variance = ± 15%

STATUS: Within Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	13,840.0	15,384.0	1,544.0	11.2%	
Aug-22	29,286.0	27,974.0	-1,312.0	-4.5%	
Sep-22	45,132.0	52,211.0	7,079.0	15.7%	
Oct-22	61,078.0	69,794.0	8,716.0	14.3%	
Nov-22	78,078.0	84,284.0	6,206.0	7.9%	
Dec-22	98,924.0	104,260.0	5,336.0	5.4%	
Jan-23	121,780.0	126,575.0	4,795.0	3.9%	
Feb-23	145,225.0	145,459.0	234.0	0.2%	
Mar-23	165,569.0	164,781.0	-788.0	-0.5%	
Apr-23	187,329.0	191,371.0	4,042.0	2.2%	
May-23	202,775.0				
Jun-23	218,221.0				
<b>Acceptable Variance</b>			<b>± 15%</b>		



SOURCE OF DATA: FI 301-3104 (KPI # 01.03.01.16)

## 1. BACKGROUND / PURPOSE

- To maintain Distribution-voltages of 34.5 kV and below on overhead and underground facilities which carries electricity from Receiving Stations (RS) and Distributing Stations (DS) to the customers for system reliability. There are over 6,800 miles of overhead and 3,597 miles of underground distribution facilities.

## 2. ACHIEVEMENTS / MILESTONES MET

- Power System Reliability Program (PSRP) aids in the hardening and replacement of critical infrastructure.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- This KPI is within the 15% threshold set for its goal.
- The overrun is due to working additional hours on distribution automation projects for St Light System (Job P6346).

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- Power Transmission and Distribution (PTD) management will monitor this FI and address any variations.

Within Acceptable Variance
Outside Acceptable Variance
Exceeds Target
Needs Attention



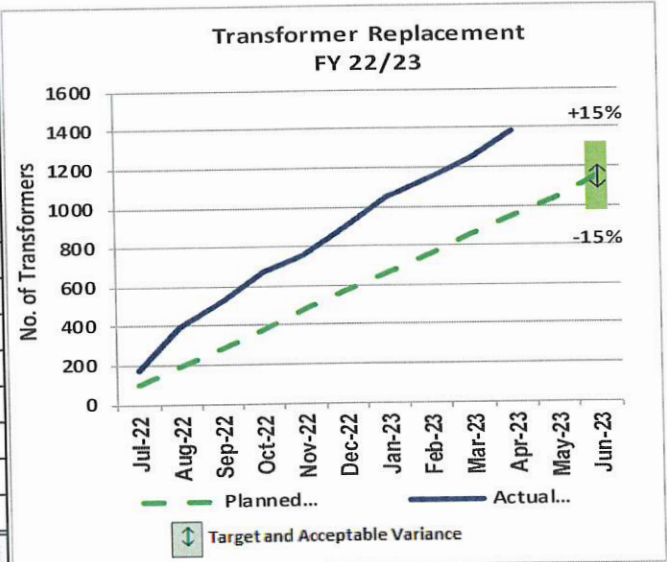
# LADWP RATES/EQUITY METRIC – Transformer Replacement (Power)

RESPONSIBLE MANAGER: Ruben Hauser, Power Transmission and Distribution  
 EQUITY CORE CATEGORY: Water and Power Infrastructure Investment

REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Number of Transformers Replaced Against Plan  
 TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = 1,150; Acceptable Variance = ± 15%

FYTD as of:	Planned (No.)	Actual (No.)	Variance		Re-Estimate
			No.	%	
Jul-22	95	168	73	76.8%	
Aug-22	190	390	200	105.3%	
Sep-22	285	521	236	82.8%	
Oct-22	380	669	289	76.1%	
Nov-22	475	759	284	59.8%	
Dec-22	570	891	321	56.3%	
Jan-23	665	1,053	388	58.3%	
Feb-23	760	1,141	381	50.1%	
Mar-23	855	1,247	392	45.8%	
Apr-23	950	1,382	432	45.5%	
May-23	1,045				
Jun-23	1,150				
<b>Acceptable Variance</b>			<b>± 15%</b>		



SOURCE OF DATA: Jobs P6394 and P6309 (KPI # 04.01.01.02)

## 1. BACKGROUND / PURPOSE

- Replace 1,150 distribution transformers to increase reliability and maintain compliance with California Public Utilities Commission (CPUC) General Order 165- Inspection Cycles for Electric Distribution Facilities. Power Transmission and Distribution (PTD) maintains more than 126,000 distribution transformers. This work is required to provide customers reliable power and a better customer experience. Work is completed by Distribution Construction & Maintenance (DC&M) district or contract crews and is related to Power System Reliability Program (PSRP).
- The Transformer Replacement target of 1,100 reflects the planned transformer replacement for Job P6394 (Identify and Replace Distribution Transformers and Related Equipment). Additionally, there is a planned replacement of 50 transformers under Job P6309 (System Transformer Installation/Upgrades) for a combined total of 1,150. The actual transformer replacements reflect the transformers replaced under both Job P6394 and Job P6309.

## 2. CRITERIA

- Transformer replacements are identified through DC&M inspection programs or due to transformer failures or are at risk of failing. This includes wildfire hardening which has been identified and based on the urgency, includes replacement.

## 3. ACHIEVEMENTS / MILESTONES MET

- Through April, the target was to replace 950 transformers and the current actual number of transformers replaced is 1,382. The goal is to complete 1,150 transformer replacements for Fiscal Year 22/23. PTD has exceeded this target.

## 4. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- The actual number of transformers replaced exceeds the ±15% threshold.
- Transformers are replaced after failure, overload condition, or when regular scheduled maintenance is required. The transformers are counted after being replaced.

## 5. MITIGATION PLAN AND / OR RECOMMENDATIONS

- PTD will continue to monitor the job as the year progresses and will adjust priorities and resources accordingly. PTD will continue to monitor transformer replacements throughout the FY.
- Weather conditions may change throughout the year, affecting the amount of activity in any given month.

## 6. OUTREACH STRATEGY / PLAN

- PTD utilizes poster boards at job locations indicating why work is being performed.
- PTD conducts presentations at Community Council meetings describing PSRP work.
- PTD crew leaders notify customers in person when planning access to facilities for transformer replacements.

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention



# LADWP RATES/EQUITY METRIC – Pole Replacement (Power)

RESPONSIBLE MANAGER: Ruben Hauser, Power Transmission and Distribution  
 EQUITY CORE CATEGORY: Water and Power Infrastructure Investment

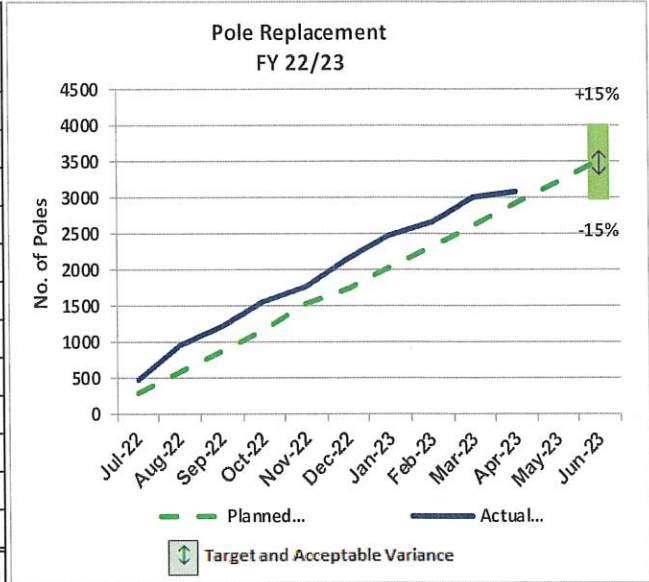
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Number of Poles Replaced Against Plan

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = 3,500; Acceptable Variance = ± 15%

**STATUS:** Within Acceptable Variance

FYTD as of:	Planned (No.)	Actual (No.)	Variance		Re-Estimate
			No.	%	
Jul-22	292	476	184	63.0%	
Aug-22	583	967	384	65.9%	
Sep-22	876	1,232	356	40.6%	
Oct-22	1,168	1,567	399	34.2%	
Nov-22	1,549	1,768	219	14.1%	
Dec-22	1,752	2,172	420	24.0%	
Jan-23	2,043	2,490	447	21.9%	
Feb-23	2,335	2,669	334	14.3%	
Mar-23	2,628	3,019	391	14.9%	
Apr-23	2,919	3,100	181	6.2%	
May-23	3,212				
Jun-23	3,500				
<b>Acceptable Variance</b>			± 15%		



SOURCE OF DATA: Jobs P6322 (KPI # 04.01.01.03)

**1. BACKGROUND / PURPOSE**

- Replace 3,500 deteriorated poles due to age or other damage. Power Transmission and Distribution (PTD) maintains approximately 321,000 poles in its system. These poles have an average life span of fifty years. These poles support switches, light fixtures, transformers, and underground cables transitioning to an overhead termination, communication cables, crossarms and conductors at different voltage levels. Work is completed by Distribution Construction & Maintenance (DC&M) district and contract crews. This work is required to maintain compliance with California Public Utilities Commission (CPUC) General Order 165- Inspection Cycles for Electric Distribution Facilities, and our Power System Reliability Program (PSRP).

**2. CRITERIA**

- Poles are prioritized for replacement by age and if they are rotten.
- The DC&M Inspection program tests and identifies poles that need replacement.
- Fire mitigation and wildfire hardening also play a role in pole replacement.

**3. ACHIEVEMENTS / MILESTONES MET**

- To date, the target was to replace 2,919 poles and the current actual number of poles replaced is 3,100.

**4. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- The number of poles replaced is within the acceptable ±15% threshold.
- Replacements will vary month to month due to some jobs taking over a month to complete and the availability of crews.

**5. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- PTD will continue to monitor the job as the year progresses and will adjust priorities and resources accordingly to ensure end of FY goals are achieved.

**6. OUTREACH STRATEGY / PLAN**

- PTD utilizes poster boards at job locations indicating why work was being performed.
- PTD conducts presentations at Community Council meetings describing PSRP work.
- PTD crew leaders notify customers in person when planning access to facilities for pole replacements.

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention



# LADWP RATES METRIC – Crossarm Replacement (Power)

RESPONSIBLE MANAGER: Ruben Hauser, Power Transmission and Distribution

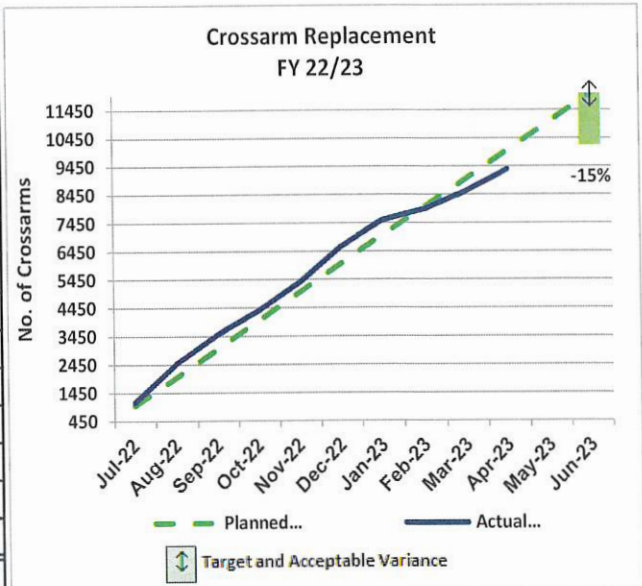
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Number of Crossarms Replaced Against Plan

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = 12,000; Acceptable Variance = ± 15%

STATUS: Within Acceptable Variance

FYTD as of:	Planned (No.)	Actual (No.)	Variance		Re-Estimate
			No.	%	
Jul-22	1,000	1,116	116	11.6%	
Aug-22	2,000	2,500	500	25.0%	
Sep-22	3,000	3,524	524	17.5%	
Oct-22	4,000	4,354	354	8.9%	
Nov-22	5,000	5,353	353	7.1%	
Dec-22	6,000	6,599	599	10.0%	
Jan-23	7,000	7,545	545	7.8%	
Feb-23	8,000	7,943	-57	-0.7%	
Mar-23	9,000	8,577	-423	-4.7%	
Apr-23	10,000	9,336	-664	-6.6%	
May-23	11,000				
Jun-23	12,000				
Acceptable Variance			± 15%		



SOURCE OF DATA: Job P6318 (KPI #04.01.01.21)

### 1. BACKGROUND / PURPOSE

- Replace 12,000 deteriorated crossarms due to age or other damage. Power Transmission and Distribution (PTD) maintains approximately 321,000 poles that usually support one or more crossarms. These crossarms support conductors at different voltage levels, transformers, switches, light fixtures, communication cables, etc. Work is done by Distribution Construction & Maintenance (DCM) district and contract crews. This work is required to maintain compliance with California Public Utilities Commission (CPUC) General Order 165- Inspection Cycles for Electric Distribution Facilities, and our Power System Reliability Program (PSRP).

### 2. ACHIEVEMENTS / MILESTONES MET

- To date, the target was to replace 10,000 crossarms and the current actual number of crossarms replaced is 9,336. This includes wildfire hardening which has been identified based on the urgency, and includes replacement.

### 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- The number of crossarms replaced falls within the acceptable ±15% threshold.
- PTD constantly monitors crossarm replacement activity and adjusts work and resources as needed throughout the year.
- Division's focus changes with the weather and operating needs. During the recent storms, crossarm replacements decreased due to the majority of field crews focused on responding to citywide outages.
- PTD was more accurate in capturing completed work using WMIS while resources were prioritized in other areas. PTD will focus resources according to the operating needs of the distribution system and will work to meet the FY target goals for all our KPI's.

### 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- PTD will monitor this job to ensure goals are met.

# LADWP RATES/EQUITY METRIC – Cable Replacement (Power)

RESPONSIBLE MANAGER: Vincent Zabukovec *Vincent Zabukovec*  
Power System Engineering Division

REPORTING PERIOD: April 2023

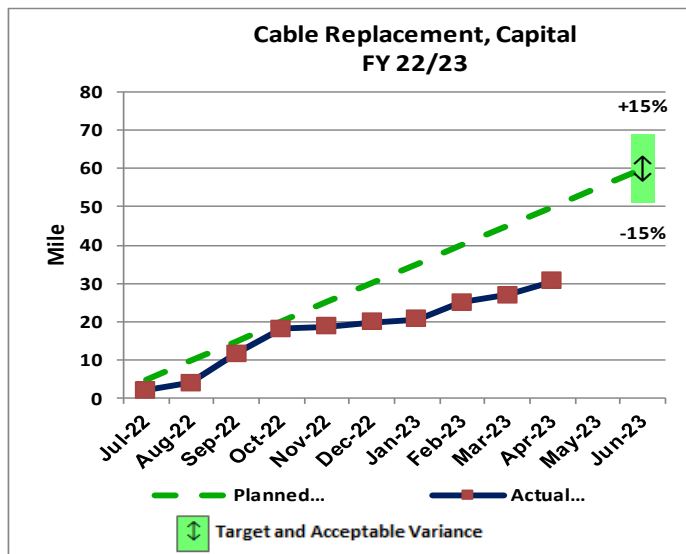
EQUITY CORE CATEGORY: Water & Power Infrastructure Investment

DEFINITION OF RATES METRIC: No. of Miles of Cable Replaced Against Plan

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = 60 miles; Acceptable Variance = ±15%

STATUS: **Outside Acceptable Variance**

FYTD as of:	Planned (Mile)	Actual (Mile)	Variance		Re-Estimate
			Mile	%	
Jul-22	5.0	2.2	-2.8	-56.0%	
Aug-22	10.0	4.0	-6.0	-60.0%	
Sep-22	15.0	11.7	-3.3	-22.0%	
Oct-22	20.0	18.1	-1.9	-9.5%	
Nov-22	25.0	18.7	-6.3	-25.2%	
Dec-22	30.0	19.8	-10.2	-34.0%	
Jan-23	35.0	20.7	-14.3	-40.9%	
Feb-23	40.0	25.1	-14.9	-37.3%	
Mar-23	45.0	26.9	-18.1	-40.2%	
Apr-23	50.0	30.5	-19.5	-39.0%	
May-23	55.0				55.0
Jun-23	60.0				60.0
Acceptable Variance			± 15%		0.0%



SOURCE OF DATA: FI 21190, Job P6306 (KPI # 04.01.01.70)

## 1. NARRATIVE / BACKGROUND

- Cable replacement of 4.8-kV and 34.5-kV cables for additional system reliability due to deterioration, overload, obsolescence and damage.

## 2. CRITERIA

- Frequency of failures
- Cable age
- Physical deteriorations: cracks, bulging

## 3. ACHIEVEMENTS

- Through the month of April, Distribution Construction & Maintenance completed 30.5 circuit-miles. The goal is to complete 60 circuit-miles for Fiscal Year 22/23.

## 4. PERFORMANCE/VARIANCE ANALYSIS & YEAR END PROJECTION

Variance through the month of April is 19.5 circuit-miles, 39% below target. Variance is due to District crews focusing on other priorities in previous months on outages, customer line extension work such as AH100 projects, conversion work and relocation work. Additionally, District crews need to close completed jobs and finalize jobs close to completion. Some cable replacement projects can be closed out once record drawings are completed by Engineering. Actual circuit-miles recorded are expected to be closer to the target goal when District crews close the completed

jobs. Expenditures for cable replacement have incurred \$17.8M overrun in the corresponding budget in Lead & Synthetic 4.8kV & 34.5kV Cable Replacement (Job P6306). Overrun is caused by cable replacement jobs requiring installation of new conduit and underground structures which incur increased material costs and labor hours.

## 5. MITIGATION/RECOMMENDATION

- Distribution circuit design engineers are continuing to compile lists of cable replacement jobs under construction, identifying which jobs are completed or close to being completed and working with District crews to close the completed jobs.
- Contract Operations crews will assist in completing cable replacement jobs.

## 6. OUTREACH STRATEGY / PLAN

- Neighborhood Council request for meeting on outages
- Available information on web site: <http://prp.ladwp.com>

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention

# LADWP RATES METRIC – Average Unit Cost per Transformer (Power)

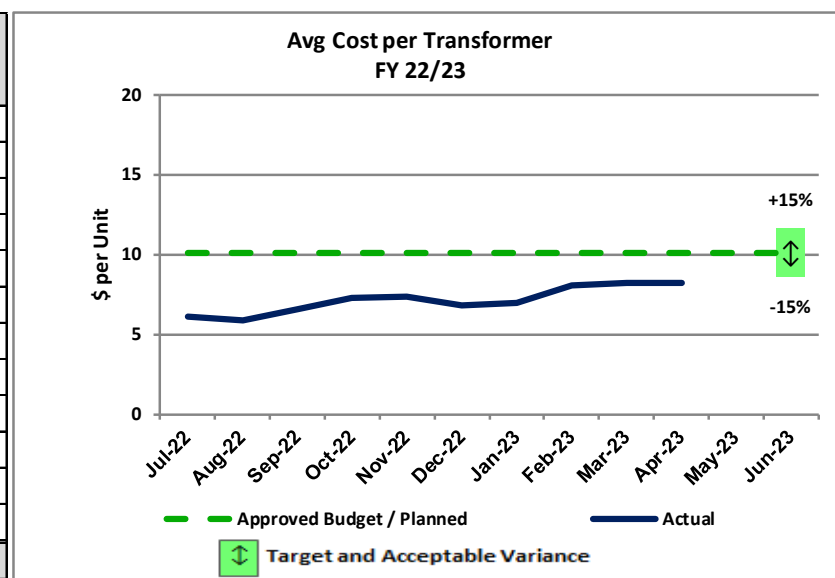
RESPONSIBLE MANAGER: Walter Rodriguez, Jr., Power Transmission and Distribution *Walter Rodriguez Jr.* REPORTING PERIOD: APRIL 2023

DEFINITION OF RATES METRIC: Average Unit Cost per Transformer

TARGET & ACCEPTABLE VARIANCE (FY 22/23) Target = \$10.1K per transformer: Acceptable Variance = ± 15%

STATUS: Exceeds Target

FYTD as of:	Approved Budget / Planned	Actual	Variance		Re-Estimate (If Applicable)
			Unit or \$	%	
Jul-22	10.1	6.1	(4.0)	-39.6%	
Aug-22	10.1	5.9	(4.2)	-41.6%	
Sep-22	10.1	6.6	(3.5)	-34.7%	
Oct-22	10.1	7.3	(2.8)	-27.7%	
Nov-22	10.1	7.4	(2.7)	-26.7%	
Dec-22	10.1	6.8	(3.3)	-32.7%	
Jan-23	10.1	7.0	(3.1)	-30.7%	
Feb-23	10.1	8.1	(2.0)	-19.8%	
Mar-23	10.1	8.2	(1.9)	-18.8%	
Apr-23	10.1	8.2	(1.9)	-18.8%	
May-23	10.1				
Jun-23	10.1				
Acceptable Variance			± 15%		



SOURCE OF DATA: Jobs P6394/P6309 (KPI # 04.01.01.71)

## 1. BACKGROUND / PURPOSE

- Identify and replace 1,150 distribution transformers to increase reliability and maintain compliance with California Public Utilities Commission (CPUC) General Order 165 - Inspection Cycles for Electric Distribution Facilities. Power Transmission and Distribution (PTD) has a target replacement cost of \$10.1K per unit.

## 2. ACHIEVEMENTS / MILESTONES MET

- As of April 30, the target was to replace 950 transformers at 82.61% of the fiscal year-end goal. PTD has completed replacement of 1,382 transformers, which is 120.17% of the fiscal year goal with a current average cost of \$8.2K per unit.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- PTD is exceeding the target and there is a variance of \$1.9K per unit. For the month of April, the average cost is \$8.2K, which is 18.8% under the planned target. Variance exceeds the acceptable target due to the number of transformer replacements completed above target. Additional work is being performed in

this area to keep up with restoration work due to weather conditions and customer demand.

- Transformers are identified for replacement using several different criteria; inspections, programs, power quality, as well as risk of failures. The transformers that are incident driven will fluctuate and will directly affect the cost per unit.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- Power System Regulatory and Innovation Division (PSRID) business group continues to make advancements on a strategic goal to improve Work Management Information System (WMIS) mapping of Accelerated Code (AC) jobs. Some improvements have been implemented. Methods of capturing costs in the appropriate jobs has been implemented and will require more training for new crew leaders and supervisors and continued monitoring and adjusting.
- PTD is working with PSRID on refining the mapping of AC jobs and providing the most accurate cost per unit.
- PTD is monitoring and providing recommendations as needed.

Within Acceptable Variance ■ Outside Acceptable Variance ■ Exceeds Target ■ Needs Attention ■

# LADWP RATES METRIC – Average Unit Cost per Pole (Power)

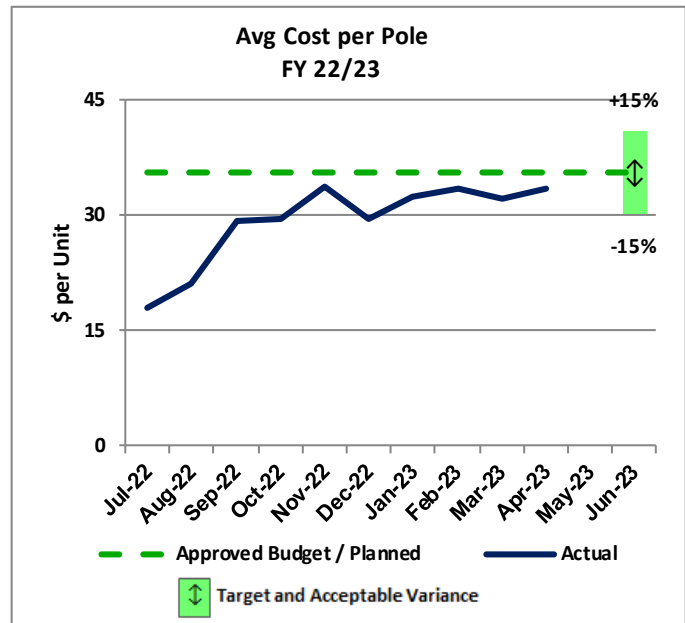
**RESPONSIBLE MANAGER:** Walter Rodriguez, Jr., Power Transmission and Distribution *Walter Rodriguez Jr.* **REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Average Unit Cost per Pole

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = \$35.6K per pole: Acceptable Variance = ± 15%

**STATUS:** Within Acceptable Variance

FYTD as of:	Approved Budget / Planned	Actual	Variance		Re-Estimate (If Applicable)
			Unit or \$	%	
Jul-22	35.6	17.9	(17.7)	-49.7%	
Aug-22	35.6	21.1	(14.5)	-40.7%	
Sep-22	35.6	29.3	(6.3)	-17.7%	
Oct-22	35.6	29.5	(6.1)	-17.1%	
Nov-22	35.6	33.9	(1.7)	-4.8%	
Dec-22	35.6	29.6	(6.0)	-16.9%	
Jan-23	35.6	32.4	(3.2)	-9.0%	
Feb-23	35.6	33.5	(2.1)	-5.9%	
Mar-23	35.6	32.2	(3.4)	-9.6%	
Apr-23	35.6	33.6	(2.0)	-5.6%	
May-23	35.6				
Jun-23	35.6				
<b>Acceptable Variance</b>			± 15%		



**SOURCE OF DATA:** Job P6322 (KPI # 04.01.01.72)

## 1. BACKGROUND / PURPOSE

- Replace 3,500 deteriorated power poles due to age or other damage. Power Transmission and Distribution (PTD) maintains approximately 321,000 poles in its system. Power poles have an average life span of fifty years. Power poles support switches, light fixtures, transformers, and underground cables transitioning to an overhead termination, communication cables, crossarms and conductors at different voltage levels. PTD has a target replacement cost of \$35.6K per unit.

## 2. ACHIEVEMENTS / MILESTONES MET

- As of April, PTD's current to date target was a replacement of 2,919 power poles at 83.4% of the fiscal year goal. PTD has completed replacement of 3,100 power poles, which is 88.6% of the fiscal year goal with a current average cost of \$33.6K per unit.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- PTD's Contract Operations personnel, which includes outside contractors, is within the target and there is a variance of \$2.0K per unit. For the month of April, the average cost is \$33.6K, which is 5.6% under the planned target of \$35.6K. Additional work is being performed in this area to keep up with restoration work due to weather conditions and customer demand.
- Work Management Information System (WMIS) is the system used to capture time and work orders from employees working on the pole replacements. The number of crews and number of employees that make up each crew may vary based on the location, type of poles being replaced, specialized equipment utility, and other factors that the pole replacement job entails. The number of crews, the number of employees on each crew, and how time is entered by each employee affects WMIS reporting and consequently affects the average cost per unit.



- The cost of the pole replacement and the number of crews needed to perform these jobs are affected by the following: complexity/ease of replacement, location and other mitigating factors, such as the introduction of alternative poles.

#### **4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- PTD will monitor and audit unit costs in addition to working with Power System Regulatory and Innovation Division (PSRID) to refine accounting for these jobs.
- PTD will work with WMIS administrators on refining and evaluating how pole replacement costs are captured and how the cost per unit is affected.

# LADWP RATES METRIC – Average Unit Cost per Crossarm (Power)

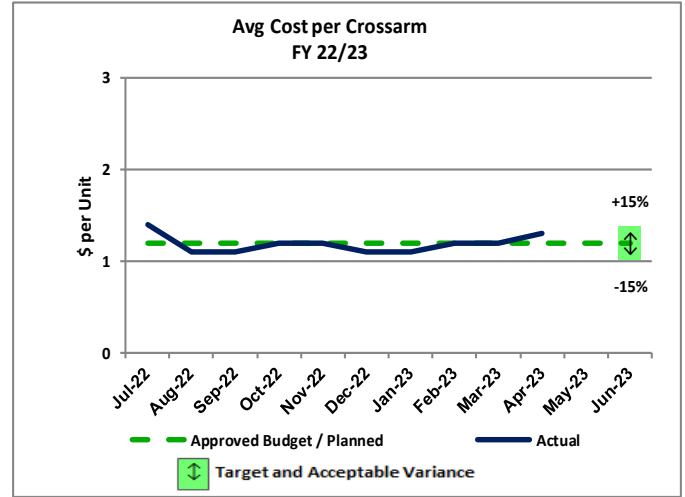
**RESPONSIBLE MANAGER:** Walter Rodriguez, Jr., Power Transmission and Distribution *Walter Rodriguez Jr.* **REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Average Unit Cost per Crossarms

**TARGET & ACCEPTABLE VARIANCE (FY 22/23)** Target = \$1.2K per crossarm: Acceptable Variance = ± 15%

**STATUS:** Within Acceptable Variance

FYTD as of:	Approved Budget / Planned	Actual	Variance		Re-Estimate (If Applicable)
			Unit or \$	%	
Jul-22	1.2	1.4	0.2	16.7%	
Aug-22	1.2	1.1	(0.1)	-8.3%	
Sep-22	1.2	1.1	(0.1)	-8.3%	
Oct-22	1.2	1.2	0.0	0.0%	
Nov-22	1.2	1.2	0.0	0.0%	
Dec-22	1.2	1.1	(0.1)	-8.3%	
Jan-23	1.2	1.1	(0.1)	-8.3%	
Feb-23	1.2	1.2	0.0	0.0%	
Mar-23	1.2	1.2	0.0	0.0%	
Apr-23	1.2	1.3	0.1	8.3%	
May-23	1.2				
Jun-23	1.2				
Acceptable Variance			± 15%		



**SOURCE OF DATA:** Job P6318 (KPI # 04.01.01.73)

### 1. BACKGROUND / PURPOSE

- Replace 12,000 deteriorated crossarms due to age or other damage. Power Transmission and Distribution (PTD) maintains approximately 321,000 poles that usually support one or more crossarms. These crossarms support conductors at different voltage levels, transformers, switches, light fixtures, communication cables, etc. PTD has a target replacement cost of \$1.2K per unit.

### 2. ACHIEVEMENTS / MILESTONES MET

- As of April, PTD’s target was to replace 10,000 crossarms, which is 83.3% of the fiscal year goal. PTD has completed the replacement of 9,336 crossarms, which is 77.8% of the FY goal, with a current average cost of \$1.3K per unit.

### 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- PTD is within the acceptable variance and there is \$ 0.1K per unit. For the month of April, the average cost is \$1.3K, which is on target. Crossarm replacement costs will fluctuate depending on the difficulty factor of the crossarm replacement. Contributing factors can be conductor size, whether or not equipment is installed on crossarm, if conductor terminates on crossarm or if crossarm has conductor carrying more than one voltage.

### 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- PTD will monitor and work with Power System Regulatory and Innovation Division (PSRID) business group on the Work Management Information System (WMIS) mapping of work requests targeting this job.
- PTD will monitor and ensure efficient work practices and proper capturing of costs to ensure that all costs are being captured correctly.

# LADWP RATES METRIC – Average Unit Cost per Mile of Cable (Power)

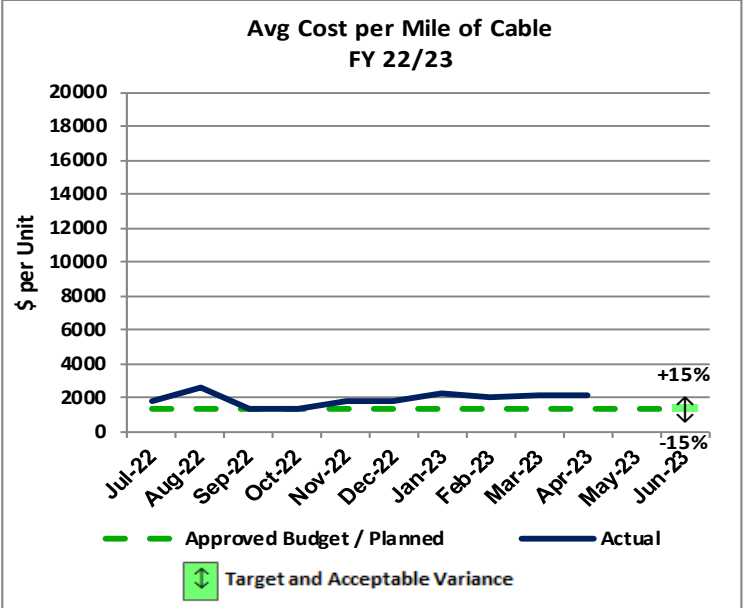
**RESPONSIBLE MANAGER:** Walter Rodriguez, Jr., Power Transmission and Distribution *Walter Rodriguez Jr.* **REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Average unit cost per mile of cable replaced

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** Target = \$1,407.4 per mile of cable replaced; Acceptable Variance = ± 15%

**STATUS:** Outside Acceptable Variance

FYTD as of:	Approved Budget / Planned	Actual	Variance		Re-Estimate (If Applicable)
			Unit or \$	%	
Jul-22	1,407.4	1,777.3	369.9	26.3%	
Aug-22	1,407.4	2,586.8	1,179.4	83.8%	
Sep-22	1,407.4	1,408.3	0.9	0.1%	
Oct-22	1,407.4	1,418.7	11.3	0.8%	
Nov-22	1,407.4	1,777.6	370.2	26.3%	
Dec-22	1,407.4	1,777.6	370.2	26.3%	
Jan-23	1,407.4	2,252.8	845.4	60.1%	
Feb-23	1,407.4	2,030.7	623.3	44.3%	
Mar-23	1,407.4	2,183.0	775.6	55.1%	
Apr-23	1,407.4	2,161.5	754.1	53.6%	
May-23	1,407.4				
Jun-23	1,407.4				
<b>Acceptable Variance</b>			± 15%		



**SOURCE OF DATA:** Job P6306 (KPI # 04.01.01.74)

## 1. BACKGROUND / PURPOSE

- Replace 60 miles of 4.8 kV and 34.5 kV underground (4.8-kV and 34.5-kV) distribution cables that require periodic upgrading because of load growth, failures due to storm damage, accidents, inherent defects, deterioration, age or advancements in materials and in power distribution techniques. Power Transmission and Distribution (PTD) has a target replacement cost of \$1,407.4K per mile.

## 2. ACHIEVEMENTS / MILESTONES MET

- PTD’s annual target is the replacement of 60 miles of cable. The actual cable replacement accounted for in April totals 30.5 miles.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- Average cost per mile of cable is \$2,161.5K which is outside the acceptable target for the month of April.
- Multiple 4.8 kV and 34.5 kV cable replacement projects have been completed in the month of April. With Task 145 completed in Work Management Information System (WMIS), cable mileage for these projects can be accounted for in correlation with past labor and material charges.

- The primary driver for this variance has been labor cost and construction services. The increase in the amount of cable replaced is determined when the cable is removed and it becomes apparent that a larger amount of cable (length) needs to be replaced due to circuit configuration, circuit loading and/or the need for upgrade cable size over a larger area than originally planned. Extreme deterioration of cable due to age, circuit loading, and damage by collapsed conduit is identified as the cable is removed. This will generate additional conduit repair work and cost. These repairs must be done before the new cable may be installed. As a result, the amount of cable will increase and combined with conduit repair cost (where needed), we will have an increase in the overall cost per mile of replacement. In addition, materials and supplies have had a direct impact on the overall budget.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- PTD will monitor job performance and ensure that time, materials, and labor are being accounted for accurately and appropriately.

Within Acceptable Variance   Outside Acceptable Variance   Exceeds Target   Needs Attention

- PTD will work with Power System Regulatory and Innovation Division (PSRID) business group to ensure all work and costs are accounted for with the highest accuracy possible.



# LADWP RATES METRIC – *Distribution Automation (Power)*

RESPONSIBLE MANAGER: Kodi Uzomah, Power System Regulatory & Innovation Division

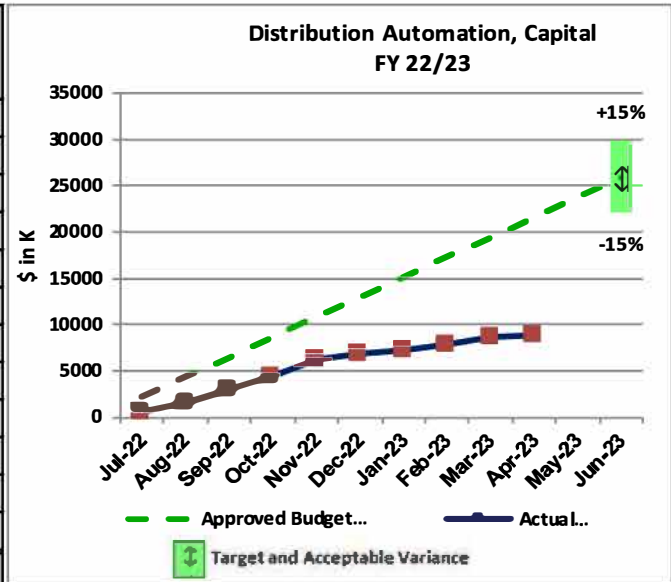
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board Approved Annual Budget vs. Actual Expenditures For Distribution Automation, Capital

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = \$25,900K; Acceptable Variance = ± 15%

**STATUS:** Outside Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate
			\$ in K	%	
Jul-22	2,158.0	573.0	(1,585.0)	-73.4%	
Aug-22	4,316.0	1,551.0	(2,765.0)	-64.1%	
Sep-22	6,474.0	2,893.0	(3,581.0)	-55.3%	
Oct-22	8,633.0	4,352.0	(4,281.0)	-49.6%	
Nov-22	10,790.0	6,117.0	(4,673.0)	-43.3%	
Dec-22	12,948.0	6,876.0	(6,072.0)	-46.9%	
Jan-23	15,108.0	7,193.0	(7,915.0)	-52.4%	
Feb-23	17,264.0	7,807.0	(9,457.0)	-54.8%	
Mar-23	19,422.0	8,569.0	(10,853.0)	-55.9%	
Apr-23	21,580.0	8,916.0	(12,664.0)	-58.7%	
May-23	23,738.0				
Jun-23	25,900.0				
<b>Acceptable Variance</b>			± 15%		



**SOURCE OF DATA:** FI 28840/Job P6511 (KPI # 01.03.01.25).

**1. BACKGROUND / PURPOSE**

The purpose of the Distribution Automation Program is to help achieve LADWP’s vision of being innovative and using the latest technology to improve, modernize, and better maintain our aging Distribution System. By the end of 2024, LADWP envisions to have all the foundational elements in place to build a smarter, more reliable distribution system that effectively utilizes new technology and innovation to improve system reliability and customer experience.

Installations ramped up with the addition of new staff to installation crews. Delays in substation deployment and changes in the complete system integrations project, and termination of associated task orders has resulted in significant under spending.

**2. ACHIEVEMENTS / MILESTONES**

Milestones:

- Installation of Communication Equipment
- Construction of Substation DA Equipment
- Installation of reclosers and IED on 36-05 and 36-10

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Additional equipment orders were made for mitigating potential supply chain issues. The program continues to look into areas where extra staffing could help to expedite project tasks.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- The program initially experienced delays with communication equipment delivery, and installations. This was due to late receipt from vendors, and global supply chain issues. Supply chain issues continue to pose potential challenges in the case of project change orders.

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# LADWP RATES METRIC – *Distribution Automation, Project Milestones (Power)*

RESPONSIBLE MANAGER: Kodi Uzomah Power System Regulatory & Innovation Division

REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Distribution Automation Project Progress Against Schedule (Target as %)

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Target = Complete Equipment Installations by June 2024. Variance = N/A

**STATUS**

**INFORMATION ONLY**

Project Milestones	Target Dates	Status
Installation of Pole-Top Communication Equipment Completed	FY 22/23 2nd Qtr. (October 2022 - December 2022)	In Progress, Delay, FY 23/24 Q2
Complete System Integration Completed	FY 22/23 3rd Qtr. (January 2023 - March 2023)	Task Order Terminated 10/2022
Construction of DS-36 Completed	FY 22/23 4th Qtr. (April 2023 - June 2023)	Delay, anticipated completion FY 23/24 Q4

**SOURCE OF DATA:** Distribution Automation Program Schedule

**1. BACKGROUND / PURPOSE**

The purpose of the Distribution Automation Program is to help achieve LADWP’s vision of being innovative and using the latest technology to improve, modernize, and better maintain our aging Distribution System. By the end of 2024, LADWP envisions to have all the foundational elements in place to build a smarter, more reliable distribution system that effectively utilizes new technology and innovation to improve system reliability and customer experience.

change in scope for the Complete System Integrations project, the tasks order has been terminated.

**2. ACHIEVEMENTS / MILESTONES**

- Total of 986 pole-top communication equipment installed.
- DA related construction work in progress at RS-G

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Additional equipment orders were made for mitigating potential supply chain issues. The program continues to look into areas where extra staffing could help to expedite project tasks. There is a change in scope for the complete system integrations project/tasks.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

The program initially experienced delays with communication equipment delivery, and installations. This was due to late receipt from vendors, and global supply chain issues. Supply chain issues continue to pose potential challenges in the case of project change orders. Installations ramped up with the addition of new staff to installation crews. However, construction rate has been impacted by slow down due to Priority-1 job reassignment and weather-related issues. Completion of Construction of DS-36 will not meet the original target completion date due to delays associated with field construction. There is a

*Ruben B. Eyzon*

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# **Water System**



# LADWP RATES METRIC – WATER DISTRIBUTION INFRASTRUCTURE POSITIONS (Water)

RESPONSIBLE MANAGER: Breonia Lindsey/Sandra Foster *BL SF*

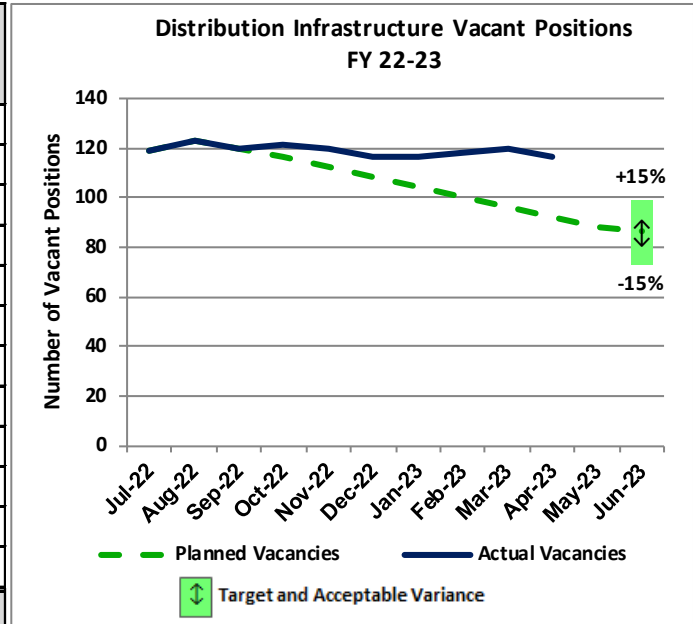
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Number of Full Time Equivalents (FTEs) hired and dedicated to Water Distribution field position as compared to plan.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Vacant budgeted Water Distribution Infrastructure field positions at 86 or less by the end of the fiscal year/, ±15%

STATUS: **Outside Acceptable Variance**

FYTD as of:	Planned Vacancies	Actual Vacancies	Variance		Re-Estimate (If Applicable)
			# Vacancies	%	
Jul-22	119	119	0	0.0%	
Aug-22	123	123	0	0.0%	
Sep-22	120	120	0	0.0%	
Oct-22	116	121	5	4.3%	
Nov-22	112	120	8	7.1%	
Dec-22	108	116	8	7.4%	
Jan-23	104	116	12	11.5%	
Feb-23	100	118	18	18.0%	
Mar-23	96	120	24	25.0%	
Apr-23	92	116	24	26.1%	
May-23	88				
Jun-23	86				
<b>Acceptable Variance</b>			<b>± 15%</b>		



SOURCE OF DATA: Hiring Plan/Annual Personnel Resolution

## 1. BACKGROUND / PURPOSE

- Distribution infrastructure crews are necessary to meet mainline replacement and other infrastructure goals.

\*The target is to reduce vacant budgeted Water Distribution infrastructure field positions to 86 vacancies or less by the end of the fiscal year.

## 2. ACHIEVEMENTS/MILESTONES MET

- The Division continues hiring infrastructure employees in fiscal year 2022/23, filling existing vacancies in critical infrastructure crews.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- Current rate of hiring budgeted positions is outside the acceptable variance. Actual vacancy numbers are the total APR field budgeted vacancies resulting from employee retirements, transfers, promotions, and terminations. The Division has been unable to reduce the number of field vacancies due to multiple factors, including availability of civil service lists and internal promotions. The Division will continue hiring efforts to reduce the number of vacant budgeted field positions to reach the revised goal of 106 vacancies or less by the end of the fiscal year.

**4. MITIGATION PLAN AND/OR RECOMMENDATIONS**

- The Division continues efforts to backfill critical infrastructure positions and reduce budgeted vacancies to meet its future mainline replacement goal.

**\*\* Appendix – WATER DISTRIBUTION INFRASTRUCTURE POSITIONS VACANCY CALCULATIONS**

<b>Actual Vacancies - January 2023</b>	<b>116</b>
Hired	-2
Reallocated*	-1
Attrition	5
<b>Actual Vacancies – February 2023</b>	<b>118</b>
Hired	0
Reallocated*	-3
Attrition	5
<b>Actual Vacancies - March 2023</b>	<b>120</b>
Hired	-9
Reallocated*	1
Attrition	4
<b>Actual Vacancies - April 2023</b>	<b>116</b>

\*Temporarily reallocated for alternate positions providing infrastructure support, and positions loaned to other divisions, to facilitate hiring processes while waiting for Civil Service Lists to be established for field positions.



# LADWP RATES METRIC – WATER SUPPLY COST BUDGET VS ACTUAL- CAPITAL (Water)

RESPONSIBLE MANAGER: April Thang *DRP*

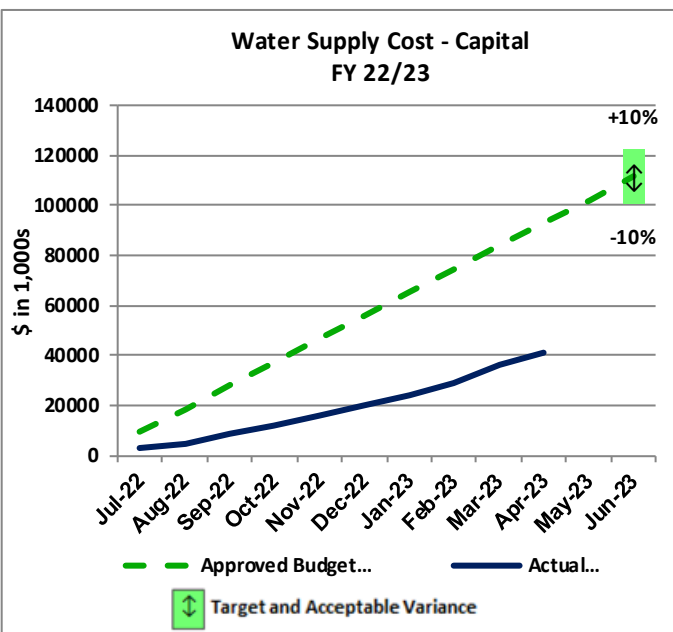
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board approved annual budget vs actual expenditures.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): \$111,477K, ±10 percent

STATUS: **Outside Acceptable Variance**

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	9,290	2,526	-6,764	-72.8%	
Aug-22	18,579	4,711	-13,868	-74.6%	
Sep-22	27,869	8,866	-19,003	-68.2%	
Oct-22	37,159	11,853	-25,306	-68.1%	
Nov-22	46,449	15,984	-30,465	-65.6%	
Dec-22	55,738	19,804	-35,934	-64.5%	
Jan-23	65,028	23,945	-41,083	-63.2%	
Feb-23	74,318	29,115	-45,203	-60.8%	
Mar-23	83,608	35,824	-47,784	-57.2%	
Apr-23	92,897	41,051	-51,846	-55.8%	
May-23	102,187				53,897
Jun-23	111,477				61,384
<b>Acceptable Variance</b>			± 10%		-44.9%



SOURCE OF DATA: FIs 22130, 22140, 22150, 23150, 24315, 24318, and 28204.

## 1. BACKGROUND / PURPOSE

- Water supply costs include both current supply of water and the development of future supplies necessary to make more resilient and reliable sources of water.
- In addition, water supply costs-capital include capital expenditures from LA Aqueduct A&B South and North, Eastern Sierra Environmental, Water Recycling, Groundwater Management, Watershed-Stormwater Capture, and Water Conservation.

## 2. ACHIEVEMENTS / MILESTONES MET

- In February 2023, the 'notice to proceed' for the Harbor Refineries Project was provided to the contractor, allowing construction to start for the last and final segment of recycled water pipe this summer. The project is in partnership with the Water Replenishment District. Once completed, the project will provide over 4,000 acre feet of recycled

water, saving enough drinking water for approximately 50,000 customers.

- In December 2022, LADWP and the Water Replenishment District started construction on the 2<sup>nd</sup> connection to the Dominguez Gap Barrier. This project will build an additional 3,000 feet of purple pipe to convey recycled water to the Dominguez Gap.
- In September 2022, groundbreaking for underground infrastructure work, such as pipe and electrical conduits, has started for the Van Norman Exploratory Wells project.
- Met the Mayor's Executive Directive No. 5 and Sustainable City pLAN's goals of reducing dependency on imported water by 20 percent in January 2017. The Department is still on track to meet the 2025 goals.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- Watershed Stormwater Capture jobs have a \$24.4M underrun. The Stormwater Capture Parks Program, which consists of nine recreational parks in the San Fernando Valley area, has experienced major delays in implementing the Memorandum of Agreement (MOA), which was initially in negotiation with the Los Angeles Department of Public Works Bureau of Sanitation (LASAN), but will now be in collaboration with the Los Angeles County Flood Control District (LACFCD). The execution of the MOA is anticipated to occur in FY 23/24.
- Water Conservation Water Funded jobs have a \$10.5M underrun. There was a decrease in demand for commercial and residential rebates at the beginning of the FY from our customers due to COVID-19. The Conservation Programs have started back up and LADWP is working on backlogs of services. LADWP is expecting increased customer participation due to conservation programs, i.e., Flume Water Monitoring Program and Turf Replacement Rebates. In addition, the partnership agreement with the Southern California Gas Company (SCGC), which provides direct installation of free water conserving devices, has been approved. LADWP received SCGC invoices totaling over \$300K, which should be processed in early June.
- Water Recycling Capital jobs have a \$9.9M underrun due to a delay in processing invoices. Nevertheless, the Harbor Refineries and Harbor Industrial Onsite Improvements projects are actively being worked on to support the expansion of the recycled water system in the Harbor area. Additionally, permitting issues and concerns from the Bureau of Engineering (BOE) have led to construction delays for the Harbor Recycled Water Potable Backup Project. Helping offset the underrun is the Headworks Direct Potable Reuse (DPR) Demonstration Facility Project.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- The Water System will continue monitoring the costs. The budget was re-estimated to align with projected fiscal year-end expenditures.

# LADWP RATES METRIC – WATER SUPPLY COSTS BUDGET VS ACTUAL- O&M (Water)

RESPONSIBLE MANAGER: April Thang

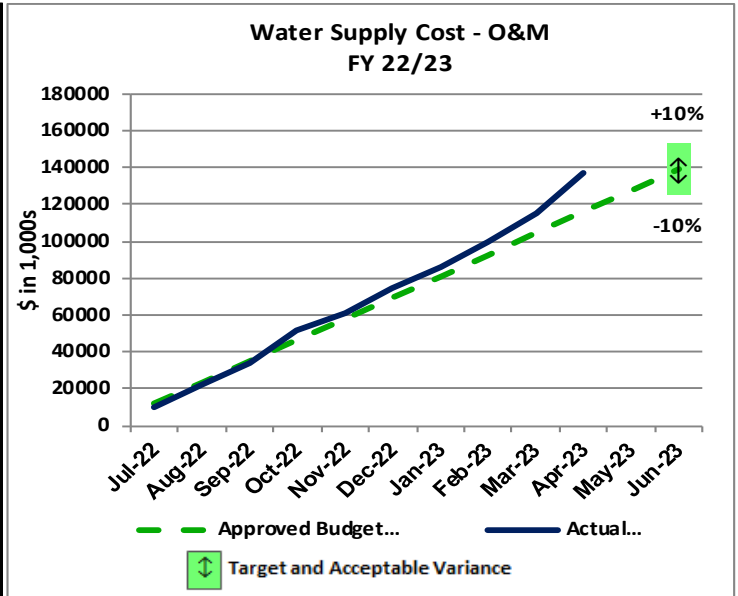
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board approved annual budget vs actual expenditures.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): \$139,114K, ±10 percent

**STATUS:** Outside Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	11,593	9,549	-2,044	-17.6%	
Aug-22	23,186	22,897	-289	-1.2%	
Sep-22	34,778	34,327	-451	-1.3%	
Oct-22	46,371	51,442	5,071	10.9%	
Nov-22	57,694	61,346	3,652	6.3%	
Dec-22	69,557	74,815	5,258	7.6%	
Jan-23	81,149	86,441	5,292	6.5%	
Feb-23	92,742	99,500	6,758	7.3%	
Mar-23	104,335	115,151	10,816	10.4%	
Apr-23	115,928	136,677	20,749	17.9%	
May-23	127,520				
Jun-23	139,114				
<b>Acceptable Variance</b>			± 10%		



SOURCE OF DATA: FIs 3022001, 3022005, 3022015, 3022025, 3022035, 3022037, 3051000, 3052000, 3112009, 3112200, 3122240, 3222507, 4013005, 4053010, and 4092023.

## 1. BACKGROUND / PURPOSE

- Operation and maintenance costs (excluding Purchased Water cost) necessary to sustain a resilient and reliable water supply.
- Water supply costs include operation and maintenance expenditures from LA Aqueduct Operations North and South, LA Aqueduct Maintenance North and South, Resources Management, Stormwater Management, Water Conservation, Water Recycling, Groundwater Pump O&M North, LA Groundwater Pump & SRCE Facility, Pump Booster, Hazardous Substance Management Program, Eastern Sierra Environmental, Groundwater O&M, and Southern District Engineering & Operations.

## 2. ACHIEVEMENTS / MILESTONES MET

- Completed 335 preventative maintenance tasks for 96 pump station facilities and 158 regulatory bi-weekly maintenance on 45 emergency backup IC Engine units located throughout the Water System.
- There have been nine complete retrofits at the Valley and Metro Pressure Regulating Stations.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- The YTD overrun is due to Water Recycling O&M. Payments to the West Basin Municipal Water District for the cost of water treatment on the westside, construction of the Hyperion Advanced Water Purification Facility, and additional labor needed to assist with the Groundwater Replenishment Project have all contributed to the overrun. In addition, the high sales of recycled water have resulted in increased payments to Los Angeles Sanitation (LASAN).

- Contributing to the overrun is expenditures for both Los Angeles Aqueduct (LAA) Northern District Maintenance and LAA Northern District Operation. Due to the record snow pack, additional Labor (Regular and Overtime) and construction equipment services were needed for the implementation of flood control measures.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Continue to monitor the water supply expenditure carefully to ensure it is in line with the re-estimated budget.

# LADWP RATES METRIC – Purchased Water (Water)

RESPONSIBLE MANAGER: April Thang

REPORTING PERIOD: April 2023

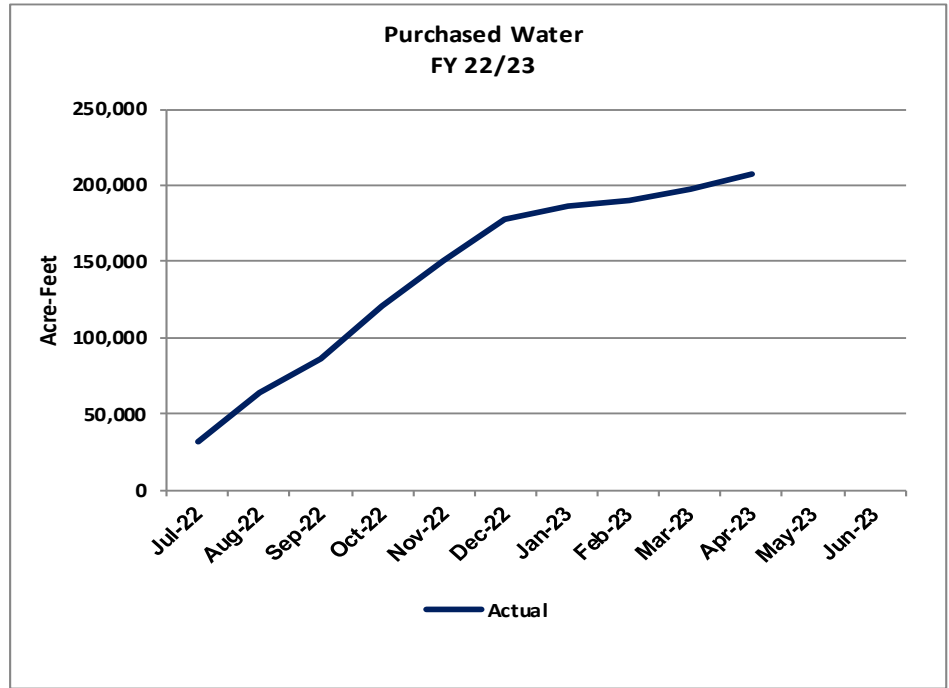
DEFINITION OF RATES METRIC: Annual quantity of purchased water in acre-feet (AF). Information only.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): N/A - for information only

STATUS:

Information Only

FYTD as of:	Actual
Jul-22	32,420
Aug-22	63,645
Sep-22	85,831
Oct-22	120,503
Nov-22	150,693
Dec-22	178,015
Jan-23	186,069
Feb-23	190,363
Mar-23	197,426
Apr-23	207,540
May-23	
Jun-23	



SOURCE OF DATA: Monthly Metropolitan Water District invoices.

**1. BACKGROUND / PURPOSE**

- Purchased water from Metropolitan Water District is an important source of water for our overall water supply portfolio and makes it more resilient.
- The Mayor’s long-term plan is to reduce dependency on purchased water supply.

expected to significantly reduce purchases of more expensive water.

**2. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- During normal weather conditions annual amount of purchased water is 150,808 AF.
- Due to the wetter condition resulting from recent storms, forecasted Los Angeles Aqueduct (LAA) supplies have been significantly increased, which impacted the purchases of water from the Metropolitan Water District of Southern California (MWD). The increase of LAA supplies is

**3. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- 20% conservation has reduced the overall water use, minimizing purchased water.
- As of April 2023, the combined average of LADWP’s Eastern Sierra snow courses was 250 percent of normal Peak with water content measuring 56.56 inches.

# LADWP RATES METRIC – RECYCLED WATER DELIVERED (Water)

RESPONSIBLE MANAGER: Jesus Gonzalez

Jesus Gonzalez  
Digitally signed by Jesus Gonzalez  
 Date: 2023.04.13 11:33:59 -0700

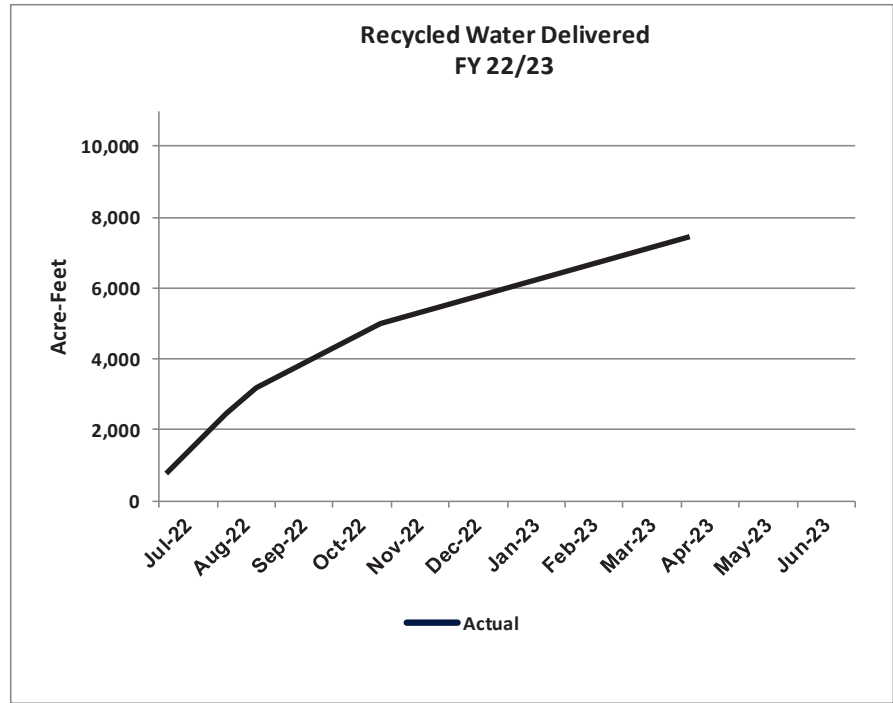
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Annual quantity of purchased water in acre-feet (AF). Information only.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): N/A - for information only

**STATUS:** Information Only

FYTD as of:	Actual
Jul-22	1,198
Aug-22	2,515
Sep-22	3,713
Oct-22	4,595
Nov-22	5,460
Dec-22	5,793
Jan-23	6,207
Feb-23	6,672
Mar-23	6,930
Apr-23	7,420
May-23	
Jun-23	



SOURCE OF DATA: Customer Recycled Water Meter Reads

**1. BACKGROUND / PURPOSE**

- Recycled Water is one of the local supply strategies to meet the Mayor’s Sustainable City pLAn to reduce dependency on imported water.

**2. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- Not applicable - for information only.

**3. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Continue to deliver recycled water to existing customers.
- Identify barriers and challenges to work with prospective recycled water customers in close proximity to RW infrastructure to expand RW deliveries.



# LADWP RATES METRIC – STORMWATER CAPACITY (Water)

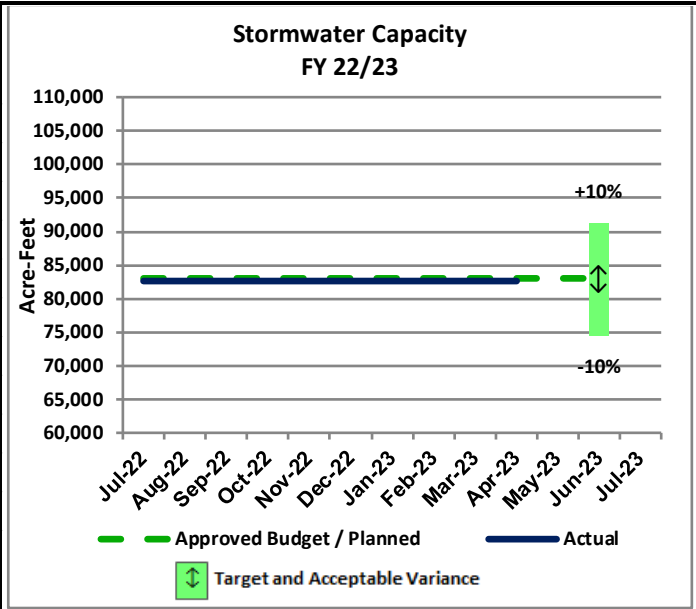
**RESPONSIBLE MANAGER:** David R. Pettijohn

**REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Stormwater system capacity milestones in acre-feet (AF) against plan.

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** 83,000 AFY; 10% variance

FYTD as of:	Approved Budget / Planned	Actual	Variance		Re-Estimate (If Applicable)
			Unit or \$	%	
Jul-22	83,000	82,626	-374	-0.5%	
Aug-22	83,000	82,626	-374	-0.5%	
Sep-22	83,000	82,626	-374	-0.5%	
Oct-22	83,000	82,626	-374	-0.5%	
Nov-22	83,000	82,626	-374	-0.5%	
Dec-22	83,000	82,626	-374	-0.5%	
Jan-23	83,000	82,626	-374	-0.5%	
Feb-23	83,000	82,626	-374	-0.5%	
Mar-23	83,000	82,626	-374	-0.5%	
Apr-23	83,000	82,626	-374	-0.5%	
May-23	83,000				
Jun-23	83,000				
<b>Acceptable Variance</b>			<b>± 10%</b>		



**SOURCE OF DATA:** Summary of Major Stormwater Capture Projects Report

**1. BACKGROUND / PURPOSE**

- Projects to meet the Water System’s long-term strategic goals for improved water supply reliability, consistent with the 2020 Urban Water Management Plan and LADWP’s Stormwater Capture Master Plan.
- Replenishment of the San Fernando Groundwater Basin is vital to sustain the long-term native safe yield of the City’s local groundwater supply.

- Projects in design/planning include:
  - Stormwater Capture Parks Program: Fernangeles Park (202 AFY), Valley Village Park (136 AFY), Strathern Park North (225 AFY), Valley Plaza Park North (398 AFY), Valley Plaza Park South (158 AFY), David M. Gonzales (448 AFY), North Hollywood Park (1,150 AFY), Alexandria Park (72 AFY), Whitsett Fields Park North (185 AFY), 100% design plans in progress.

**2. ACHIEVEMENTS / MILESTONES MET**

- Projects in construction include:
  - Pacoima Spreading Grounds Improvement Project (5,300 AFY), 50% complete.
  - San Fernando Regional Park Infiltration Project (446 AFY), 80% complete.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- On target.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Continue ongoing work as planned.

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention

# LADWP RATES METRIC – LA AQUEDUCT BUDGET VS ACTUAL - CAPITAL (Water)

RESPONSIBLE MANAGER: Wendy McGhie

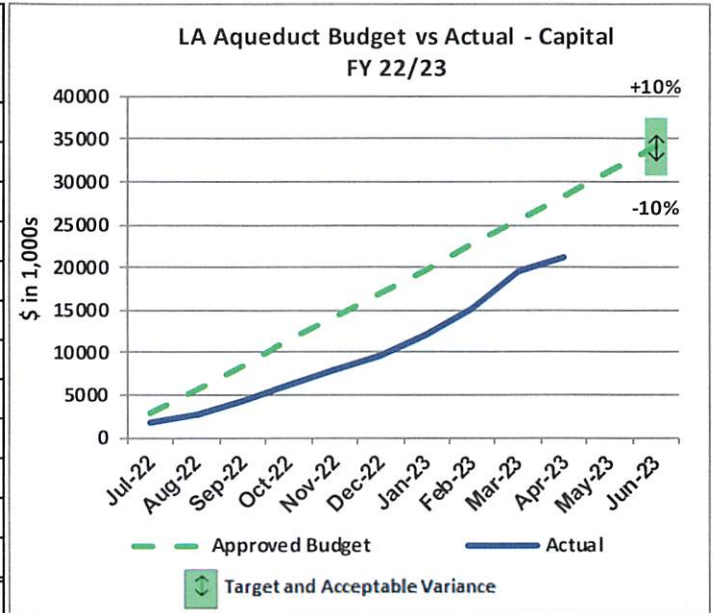
REPORTING PERIOD: Apr 2023

DEFINITION OF RATES METRIC: Board approved annual budget vs actual expenditures.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): \$34,159, 10 percent

STATUS: Outside Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	2,847	1,753	-1,094	-38.4%	
Aug-22	5,693	2,704	-2,989	-52.5%	
Sep-22	8,540	4,286	-4,254	-49.8%	
Oct-22	11,386	6,033	-5,353	-47.0%	
Nov-22	14,233	7,987	-6,246	-43.9%	
Dec-22	17,079	9,518	-7,561	-44.3%	
Jan-23	19,926	12,061	-7,865	-39.5%	
Feb-23	22,773	15,142	-7,631	-33.5%	
Mar-23	25,619	19,653	-5,966	-23.3%	
Apr-23	28,466	21,264	-7,202	-25.3%	
May-23	31,312				23,630
Jun-23	34,159				26,463
<b>Acceptable Variance</b>			± 10%		-22.5%



SOURCE OF DATA: FIs 22130, 22140, and 22150.

### 1. BACKGROUND / PURPOSE

- The Los Angeles Aqueduct is an important source of non-purchased water. During times of low flow in the Aqueduct, infrastructure projects are completed (this cannot be done during high flow periods).

### 2. ACHIEVEMENTS / MILESTONES MET

- Laws planting project is 100% complete. Approximately 7,000 native shrubs and grasses planted.
- Phase 3 of the Cascades Rehabilitation Project is complete.
- Designs for the Grant Lake Spillway project are complete. Construction is anticipated to begin in April 2024.

### 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- The underrun is due to several capital projects, such as the North Haiwee Dam Project (construction anticipated Apr. 2028), Grant Lake Roto Valve (groundbreaking

expected Oct. 2029) and Grant Lake Spillway Modification Project (groundbreaking expected Apr. 2024). Projects have been postponed due to additional Scope of Work or delays in planning and permitting. Contributing to the underrun is Eastern Sierra Environmental Capital due to management’s directive to contract out the Grant Lake Spillway Modification Project. As a result, work will no longer be performed by Power Construction & Maintenance (PCM). Construction is anticipated to begin in April 2024.

- Expenditures are expected to align with the re-estimated budget.

### 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- Continue to work with Water Engineering and Technical Services to move projects forward.



# LADWP RATES METRIC – LA AQUEDUCT BUDGET VS ACTUAL – O&M (Water)

RESPONSIBLE MANAGER: Wendy McGhie

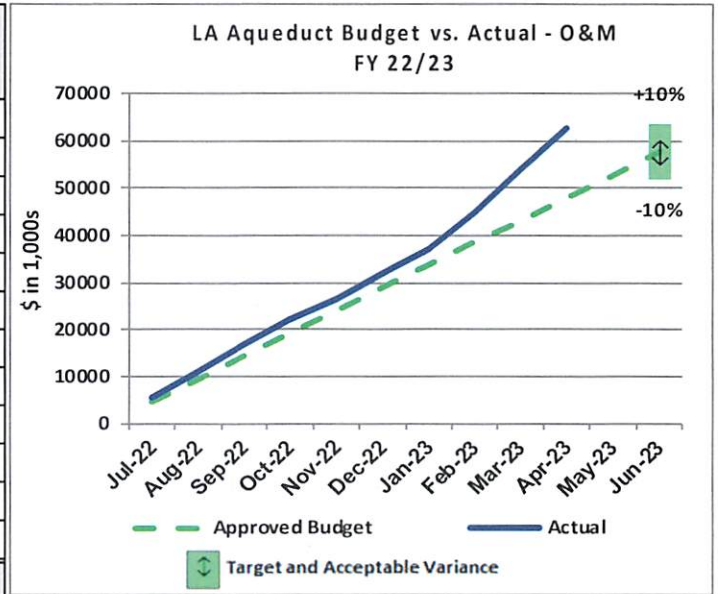
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board approved annual budget vs actual expenditures.

TARGET & ACCEPTABLE VARIANCE (FY 22/23) \$57,834, 10 percent

STATUS: Outside Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	4,819	5,274	455	9.4%	
Aug-22	9,639	11,191	1,552	16.1%	
Sep-22	14,458	17,009	2,551	17.6%	
Oct-22	19,278	22,213	2,935	15.2%	
Nov-22	24,097	26,638	2,541	10.5%	
Dec-22	28,917	31,802	2,885	10.0%	
Jan-23	33,736	37,215	3,479	10.3%	
Feb-23	38,556	44,622	6,066	15.7%	
Mar-23	43,375	53,981	10,606	24.5%	
Apr-23	48,195	62,711	14,516	30.1%	
May-23	53,014				71,682
Jun-23	57,834				80,478
<b>Acceptable Variance</b>			<b>± 10%</b>		<b>39.2%</b>



SOURCE OF DATA: FIs 3022001, 3022005, 3022015, 3022025, 3022035, 3112009, 3222507, 4013005, and 4092023.

### 1. BACKGROUND / PURPOSE

- The Los Angeles Aqueduct is an important source of non-purchased water. During times of high flow in the Aqueduct (as per the first two months of the year), operations and maintenance focus is to manage the run-off.

### 2. ACHIEVEMENTS / MILESTONES MET

Fiscal Year to date Aqueduct crews have:

- Mowed 7,739 acres for resource clearing;
- Graded 1,183 miles of roads;
- Mowed 394 miles of canals and ditches;
- Cleaned 108 miles of canals and ditches;
- Installed 11 miles of fencing;
- Cleaned 22.6 cubic miles of sand traps;
- Installed 34 data logger/station retrofits.

### 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- Aqueduct continues to focus on Operations and Maintenance work as several Capital projects are delayed. Crews have provided additional labor, material and construction services needed for the implementation of flood control measures due to record snow pack.
- Expenditures are expected to align with the re-estimated budget.

### 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- Crews will continue performing substantial facility maintenance at Mojave and Dry Canyon, as well as continue working towards Operational and Maintenance goals set for FY 22/23.

# LADWP RATES METRIC – GALLONS PER CAPITA PER DAY (GPCD)(Water)

RESPONSIBLE MANAGER: Terrence McCarthy *Terrence McCarthy*

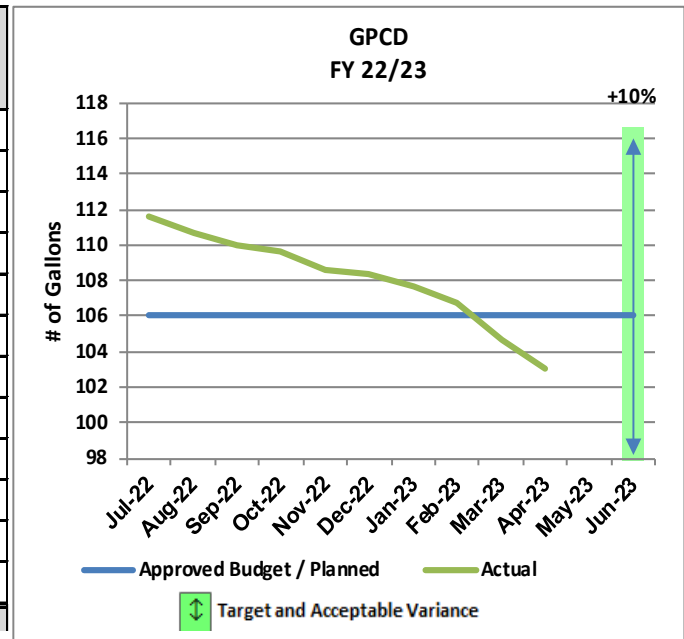
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Level of water conservation against target GPCD.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): 106 GPCD & 10% Acceptable Variance

STATUS: Within Acceptable Variance

FYTD as of:	Approved Budget / Planned	Actual	Variance		Re-Estimate of Budget/Planned
			GPCD	%	
Jul-22	106	112	6	5.3%	
Aug-22	106	111	5	4.5%	
Sep-22	106	110	4	3.7%	
Oct-22	106	110	4	3.4%	
Nov-22	106	109	3	2.5%	
Dec-22	106	108	2	2.2%	
Jan-23	106	108	2	1.6%	
Feb-23	106	107	1	0.8%	
Mar-23	106	105	-1	-1.3%	
Apr-23	106	103	-3	-2.8%	
May-23	106				
Jun-23	106				
<b>Acceptable Variance</b>			11	10%	



SOURCE OF DATA: Water Operations Monthly Supply Tracking

## 1. BACKGROUND / PURPOSE

- Gallons per capita per day (GPCD) is a measure of the City’s progress in water conservation. The Mayor’s Sustainable City pLAN set GPCD reduction goals of 20, 22.5, and 25 percent by 2017, 2025, and 2035, respectively.
- Governor Newsom declared a statewide drought emergency on October 19, 2021.

## 2. ACHIEVEMENTS / MILESTONES MET

- On January 1, 2017, LADWP met the pLAN goal of 20 percent reduction in GPCD.
- On March 1, 2023, LADWP reached and surpassed its FY 22/23 Rate Metric Target of 106 GPCD.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- April 2023 customer use reached a 12-month rolling GPCD of 103, which is the lowest we have seen since tracking this metric, and also equivalent to the 2025 milestone target.
- 12-month rolling GPCD is anticipated to marginally change through the summer months, but remain on target as a result of continued conservation efforts. April 2023

was warmer than April 2022, with minor precipitation.

- LADWP’s Water Conservation Response Unit has continued to educate residential and commercial customers about conservation practices and respond to water waste complaints received from the public. During April 2023, 121 warnings were issued, which is approximately a 275% increase compared to April 2022.
- LADWP has seen a 18% decrease in supply deliveries compared to April 2022.
- The CA Department of Water Resources increased the State Water Project allocation from 75% to 100% on April 10, 2023 as a result of the record snowpack.

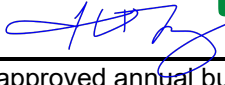
## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- LADWP will continue to support customer water use efficiency practices through its rebate programs, conservation messaging, educational programs, and other innovative solutions.
- LADWP will continue to monitor supply conditions and provide regular updates to the Board of Water and Power Commissioners as well as the Mayor’s Office for any recommended actions.

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention

# LADWP RATES METRIC – FIXED ASSETS REPLACEMENT BUDGET VS ACTUAL (Water)

RESPONSIBLE MANAGER: April Thang



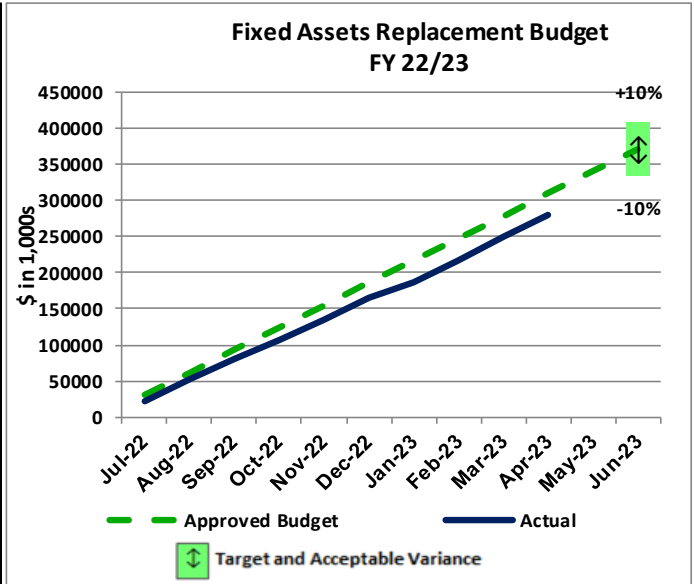
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board approved annual budget vs actual expenditures.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): \$370,874K, 10 percent

STATUS: **Within Acceptable Variance**

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	30,906	22,927	-7,979	-25.8%	
Aug-22	61,811	52,473	-9,338	-15.1%	
Sep-22	92,717	80,205	-12,512	-13.5%	
Oct-22	123,623	107,259	-16,364	-13.2%	
Nov-22	154,528	135,070	-19,458	-12.6%	
Dec-22	185,434	165,839	-19,595	-10.6%	
Jan-23	216,340	186,733	-29,607	-13.7%	
Feb-23	247,245	217,111	-30,134	-12.2%	
Mar-23	278,151	249,584	-28,567	-10.3%	
Apr-23	309,057	278,436	-30,621	-9.9%	
May-23	339,962				
Jun-23	370,874				
Acceptable Variance			± 10%		



SOURCE OF DATA: FIs 23220, 23290, 24150, 26220, 26331, 27210, 29140, and 29328.

## 1. BACKGROUND / PURPOSE

- This metric tracks the Water System’s overall infrastructure replacement program. Expenditures include mainline replacement, trunk line replacement, pump stations, regulator stations, tanks and other key Water System facilities.

## 2. ACHIEVEMENTS / MILESTONES MET

As of April 2023:

- 160,636 feet of mainline have been installed.
- 15,074 feet of trunk line have been replaced.
- 16 pumps have been replaced/retrofitted.
- 9 Regulators/Relief Stations have been retrofitted.
- 286 new fire hydrants have been installed.
- North Haiwee Dam No. 2 project:
  - Conveyor Belt-Processing Plant was installed in January 2023 and is currently processing dam barrow material.
  - The team completed the left-hand turn lane on US Route 395.

- Tinemaha Dam Replacement Project:
  - Hydrology Report has been completed and submitted to the Division of Safety of Dams’ (DSOD) for approval. DSOD review is expected to be completed by July 2023.
  - DWP completed field investigation for the Final Planning Study of the Tinemaha Dam Replacement Project (TDRP).
  - On January 12, 2023, Project Planning and Development presented a detailed risk assessment of the TDRP outlet works alternatives to the Oversight Committee. The Oversight Committee approved our recommendation to locate the outlet works on the east side of the reservoir and add scope for environmental and operational mitigation.
- Green Verdugo Reservoir Floating Cover Replacement Project:
  - The project construction is 91% complete.

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention

- The contractor mobilized to site and began installation of the rainwater removal system and other minor components in February.
- DWP crews started the testing and troubleshooting of equipment and systems in the control building.
- DWP completed construction report and secured the DSOD approval for filing the Green Verdugo Reservoir.

### **3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- The underrun in Infrastructure Reservoir Improvements (FI 29140) is primarily due to a delay in receiving and processing construction progress payments for the North Haiwee Dam No. 2 project. Water Engineering & Technical Services (WETS) is working with the vendor on processing the pending invoices.
- Due to the project design update for the Redmont Pump Station & Tank Replacement (FI 23220), the start of Power Construction & Maintenance work has been postponed to July 2024.

### **4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Continue to hire staff and work with Power Construction & Maintenance (PCM) to accomplish the Water Infrastructure Plan goals.



# LADWP RATES METRIC – MAINLINE REPLACEMENT (Water)

RESPONSIBLE MANAGER: Breonia Lindsey/Sandra Foster *SF*

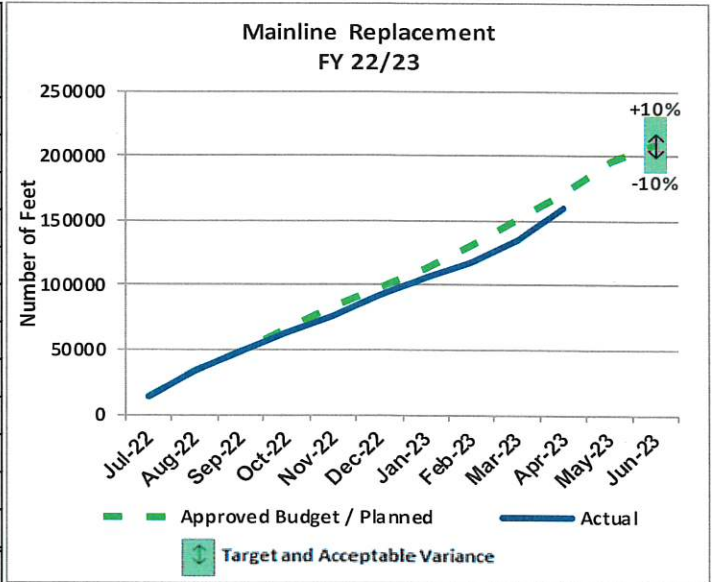
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Feet of mainline replaced against plan.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): 210,000 feet, ±10%

STATUS: Within Acceptable Variance

FYTD as of:	Approved Budget / Planned	Actual	Variance		Re-Estimate (If Applicable)
			Feet	%	
Jul-22	14,144	14,144	0	0.0%	
Aug-22	34,078	34,078	0	0.0%	
Sep-22	47,876	47,876	0	0.0%	
Oct-22	66,582	63,104	-3,478	-5.2%	
Nov-22	83,337	75,674	-7,663	-9.2%	
Dec-22	97,811	92,209	-5,602	-5.7%	
Jan-23	113,859	106,493	-7,366	-6.5%	
Feb-23	130,935	118,131	-12,804	-9.8%	
Mar-23	151,437	135,698	-15,739	-10.4%	
Apr-23	172,286	160,636	-11,650	-6.8%	
May-23	195,591				
Jun-23	210,000				
<b>Acceptable Variance</b>			± 10%		



SOURCE OF DATA: FI 26331, Job 30067

## 1. BACKGROUND / PURPOSE

- Mainline replacement is a portion of the Water System’s strategy to maintain reliability, to reduce leaks and minimize interruptions and damage to the community.

## 2. ACHIEVEMENTS / MILESTONES MET

- As of April 2023, the Division has replaced 160,636 feet of mainline.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- The rate of mainline replacement for this reporting period is within the acceptable variance. Due to inclement weather as well as staffing shortages in field infrastructure personnel, the Division anticipates being within 10% of the mainline replacement goal by the end of the fiscal year. The Division continues targeted hiring of field positions to ensure adequate staffing dedicated to infrastructure replacement.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- The Division will continue with planned hiring and training for mainline crews to reach the replacement rate of 240,000 feet of pipe per year, by FY 2024/25, resulting in a replacement cycle of 150 years and meet customer demand for new installations.

# LADWP RATES METRIC – TRUNK LINE REPLACEMENT (Water)

RESPONSIBLE MANAGER: Jianping Hu Jianping Hu

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Date: 2023.05.23 16:48:22 -07'00'

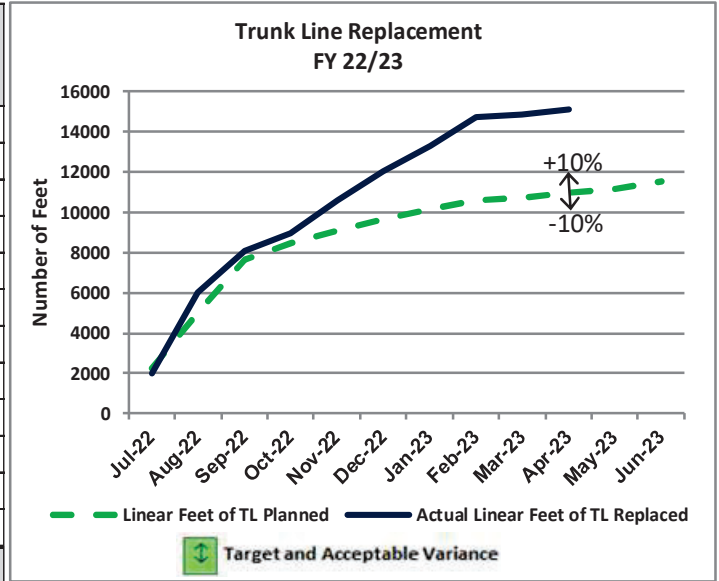
MS 5/24/23 REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Feet of trunk line replaced against the plan.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): 11,515 feet, 10 percent

STATUS: Exceeds Target

FYTD as of:	Linear Feet of TL Planned	Actual Linear Feet of TL Replaced	Variance		Re-Estimate (If Applicable)
			ft	%	
Jul-22	2,240	1,968	-272	-12.1%	
Aug-22	4,980	6,038	1,058	21.2%	
Sep-22	7,620	8,086	466	6.1%	
Oct-22	8,460	8,948	488	5.8%	
Nov-22	9,100	10,583	1,483	16.3%	
Dec-22	9,620	12,036	2,416	25.1%	
Jan-23	10,140	13,305	3,165	31.2%	
Feb-23	10,560	14,748	4,188	39.7%	
Mar-23	10,735	14,856	4,121	38.4%	
Apr-23	10,940	15,074	4,134	37.8%	
May-23	11,145				
Jun-23	11,515				
Acceptable Variance			± 10%		



SOURCE OF DATA: FI 23222 - Jobs 23117, 23435, 23515; FI 26220 - Jobs 23095, 23213, 23137, 23528.

## 1. BACKGROUND / PURPOSE

- Trunk lines are a major component of the Water System infrastructure. Rehabilitation and replacement are necessary to maintain reliable supply and safe operation of the system.

## 2. ACHIEVEMENTS / MILESTONES MET

- 270 feet of trunk line was installed on City Trunk Line South Unit 3 through September 2022.
- 10,849 feet of trunk line was installed on River Supply Conduit (RSC) Upper Reach Unit 7 Project through April 2023.
- 1,425 feet of trunk line was installed on River Supply Conduit (RSC) Lower Reach Unit 1A Project through November 2022.
- 862 feet of trunk line was installed on City Trunk Line North Unit 2 through April 2023.
- 663 feet of trunk line was installed on Century Trunk Line Unit 1 Phase 1 through November 2022.
- 687 feet of trunk line was installed on Foothill Trunk Line through January 2023.
- 318 feet of trunk line was installed on Coronado Trunk Line through April 2023.

## 3. PERFORMANCE / VARIANCE ANALYSIS AND YEAR-END PROJECTION

- The rate of trunk line replacement has exceeded the FY 22/23 target.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- Continue ongoing trunk line replacement projects.

# LADWP RATES METRIC – METER REPLACEMENT (Water)

RESPONSIBLE MANAGER: Breonia Lindsey/Sandra Foster *SF*

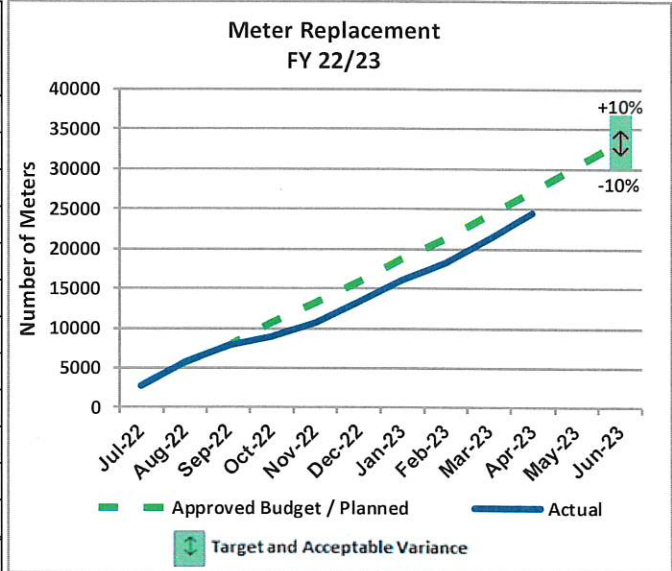
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Number of meters replaced against plan.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): 33,500 meters, ±10%

STATUS: Needs Attention

FYTD as of:	Approved Budget / Planned	Actual	Variance		Re-Estimate (If Applicable)
			Meters	%	
Jul-22	2,690	2,690	0	0.0%	
Aug-22	5,677	5,677	0	0.0%	
Sep-22	7,757	7,757	0	0.0%	
Oct-22	10,689	8,957	-1,732	-16.2%	
Nov-22	13,260	10,673	-2,587	-19.5%	
Dec-22	15,911	13,361	-2,550	-16.0%	
Jan-23	18,759	16,054	-2,705	-14.4%	
Feb-23	21,360	18,334	-3,026	-14.2%	
Mar-23	24,292	21,297	-2,995	-12.3%	
Apr-23	27,264	24,462	-2,802	-10.3%	
May-23	30,449				
Jun-23	33,500				
<b>Acceptable Variance</b>			<b>± 10%</b>		



SOURCE OF DATA: FI 27215, Job 30053

**1. BACKGROUND / PURPOSE**

- Accurate meter reading is necessary to ensure reliable and accurate billing. This metric measure both the replacement of infrastructure assets and our commitment to accurate meter reading and billing.

**2. ACHIEVEMENTS / MILESTONES MET**

- As of April 2023, 24,462 meters of the 33,500 fiscal year goal have been replaced.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- The rate of meter replacement for this reporting period is outside the acceptable variance due to vacancies, supply chain shortages experienced during the first half of the fiscal year, and inclement weather where crews could not perform their meter replacement duties. However, additional meter inventory began being received in January 2023. The Division anticipates being within 10% of the meter replacement goal by the end of the fiscal year.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- The Division will continue efforts to fill vacancies to provide the needed support for meter replacement and continues to make progress on increasing the rate of meter replacement.

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention



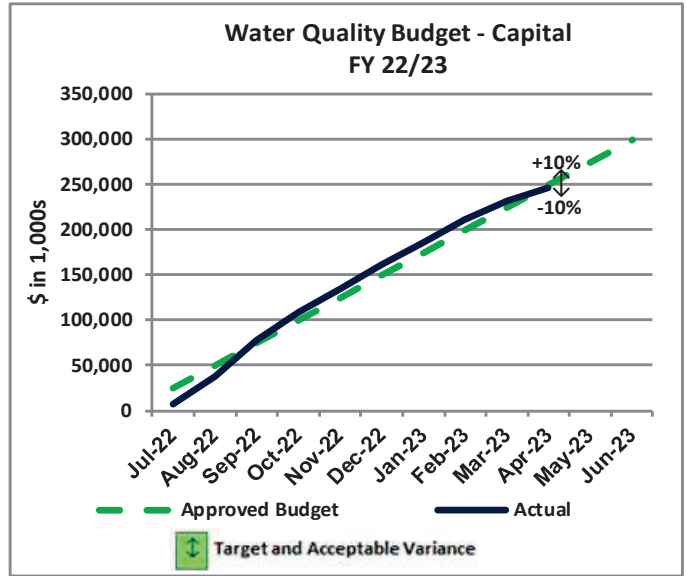
# LADWP RATES METRIC – WATER QUALITY CAPITAL BUDGET VS ACTUAL (Water)

RESPONSIBLE MANAGER: Jianping Hu Jianping Hu Digitally signed by Jianping Hu Date: 2023.05.25 16:43:02 -0700 MS 5/24/2023 REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board approved annual budget vs actual expenditures.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): \$300M, 10 percent

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	24,975	7,478	17,497	70.1%	
Aug-22	49,951	37,777	12,174	24.4%	
Sep-22	74,926	78,429	-3,503	-4.7%	
Oct-22	99,902	109,237	-9,335	-9.3%	
Nov-22	124,877	135,300	-10,423	-8.3%	
Dec-22	149,853	161,277	-11,424	-7.6%	
Jan-23	174,828	185,724	-10,896	-6.2%	
Feb-23	199,803	210,433	-10,630	-5.3%	
Mar-23	224,779	231,089	-6,310	-2.8%	
Apr-23	249,754	245,796	3,958	1.6%	
May-23	274,730				
Jun-23	299,707				



SOURCE OF DATA: Fls 23222, 24130, 24310, 24305, 24316, 27215, and 29130.

## 1. BACKGROUND / PURPOSE

- Water System’s water quality program includes projects required to meet water quality regulations and accomplish groundwater remediation goals.

## 2. ACHIEVEMENTS / MILESTONES MET

- North Hollywood Central Chlorination Station Replacement Project: As of April 2023, design is 100% complete.
- North Hollywood Central Remediation Well Collector Line Project: As of February 2023, design is 100% complete.
- San Fernando Groundwater Basin Remediation (SFGBR) – North Hollywood Centralized Treatment: As of January 2023, construction reached 91% complete.
- SFGBR – Tujunga Centralized Treatment: As of January 2023, construction reached 90% complete.
- SFGBR – North Hollywood West Wellhead Treatment: As of March 2023, construction reached 96% complete.
- Hyperion Advanced Water Purification Facility (AWPF): As of April 2023, construction reached 92% complete.

- Headworks Flow Control Station: As of April 2023, construction is approximately 65% complete.
- Fairmont Sedimentation Plant: As of September 2022, Design-Build contract proposals have been received and the contract is currently in clarification and negotiation stage with the proposed Design-Build Team.
- Headworks Reservoir West: As of August 2022, the reservoir is in-service. Commissioning is on-going and will be completed in mid-2023.

## 3. PERFORMANCE / VARIANCE ANALYSIS AND YEAR-END PROJECTION

- The Water Quality Capital approved budget vs. actual expenditure is within acceptable range for the reporting period.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- Continue ongoing work as planned.

# LADWP RATES METRIC – WATER QUALITY BUDGET VS ACTUAL-O&M

*Nelson Mejia* (Water)

RESPONSIBLE MANAGER: Nelson Mejia

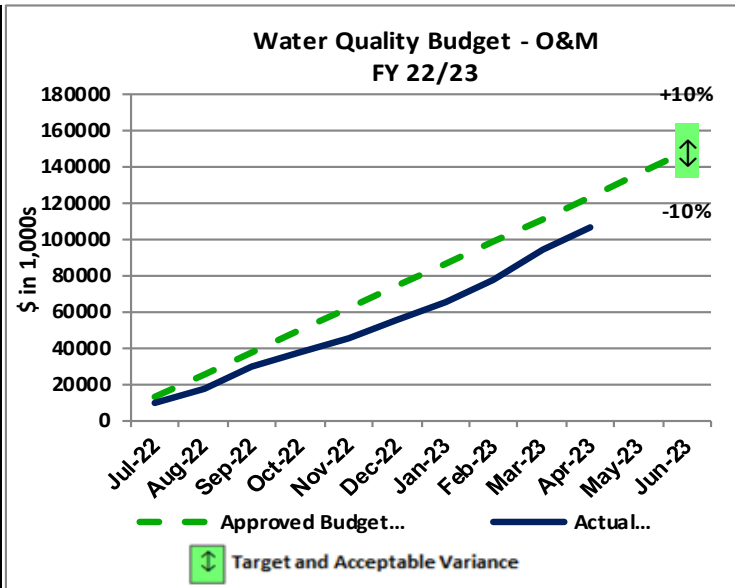
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board approved annual budget vs actual expenditures.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): \$148,365K, 10 percent

STATUS: **Outside Acceptable Variance**

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	12,364	9,267	-3,097	-25.0%	
Aug-22	24,727	17,913	-6,814	-27.6%	
Sep-22	37,091	29,588	-7,503	-20.2%	
Oct-22	49,454	37,189	-12,265	-24.8%	
Nov-22	61,818	45,184	-16,634	-26.9%	
Dec-22	74,181	55,640	-18,541	-25.0%	
Jan-23	86,545	65,603	-20,942	-24.2%	
Feb-23	98,909	77,912	-20,997	-21.2%	
Mar-23	111,272	94,215	-17,057	-15.3%	
Apr-23	123,636	106,703	-16,933	-13.7%	
May-23	135,999				
Jun-23	148,365				



SOURCE OF DATA: FIs 3212500, 3212520, 3212530, 3212540, 3212585, 3233150, 3352200 and 4010602.

## 1. BACKGROUND / PURPOSE

- This metric measures the Water System’s ongoing efforts to continue to meet mandated water quality regulations.

## 2. ACHIEVEMENTS / MILESTONES MET

Fiscal Year-to-Date

- Water Quality Groundwater O&M completed 4,792 groundwater samplings required for regulatory permits and Prop 1 Grant Program projects.
- Water Quality Control collected 24,557 regulatory required water quality samples from distribution system and supply sources, and made significant operational adjustments as well as developed safety protocols in light of COVID-19, wildfires, and other events.

- Water Quality Customer Care has processed Memoranda of Understanding with the following City Departments: Recreation and Parks, General Services, Los Angeles World Airport, Los Angeles Public Library, Streets LA, Los Angeles Zoo and Los Angeles City Tourism Department for the Hydration Station Initiative Program (HSIP). During this reporting period, 67 hydration stations have been installed through HSIP partnerships with reimbursements totaling approximately \$380,000.
- Community Outreach- Water Quality Customer Care supported the efforts of two newly selected grantees, Alliance to Save Energy and Climate Resolve, who will be conducting public outreach and education campaigns that promote LADWP’s high quality water, and communicate the environmental, health and economic benefits of drinking tap water.

- The water-saving mainline flushing activities are now anticipated to begin FY 23/24. Staff is currently working on a service contract and a material contract to support flushing activities using NO-DES which includes additional operator training, technical field support, and miscellaneous material. This was identified as a need in recent trial runs performed using NO-DES for flushing and disinfecting new mainlines.
- In November 2022, the LADWP Board of Commissioners approved a recycled water agreement with LASAN for the Groundwater Replenishment Recycled Water Project. The agreement allows LADWP to start designing the project in partnership with LASAN, and upon completion of the project, the project is expected to produce, 17,000 AFY, enough drinking water for 200,000 residents.

Emergency Declaration, high runoff and accompanying poor water quality.

#### 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- Expenditure progress will continue to be carefully monitored through the Water System monthly financial and variance reports.

### 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- The underrun in Distribution Reservoir O&M is due to delays in obtaining environmental permits for the Van Norman Complex Mitigation Project. The payment is expected to be incurred in August 2023.
- Contributing to the underrun is Water Quality-Groundwater O&M. The MOA between LASAN and LADWP for the Hyperion Membrane Bioreactor (MBR) Pilot expired and thus there is no mechanism in place, currently, to make payments. Remaining payments and future added costs will be paid via a new MOA, which is expected to go to the Board next fiscal year.
- Helping reduce the underrun is an overrun in Distribution Treatment Operations due to maintenance work performed on the Van Norman Chlorination Station 2 back-up power supply. Also contributing to the overrun is the increase in treatment and chemical usage in response to Aqueduct



# LADWP RATES METRIC – BUDGET VS ACTUAL FOR OWENS LAKE O&M [Water]

RESPONSIBLE MANAGER: Paul Liu *Paul Liu*

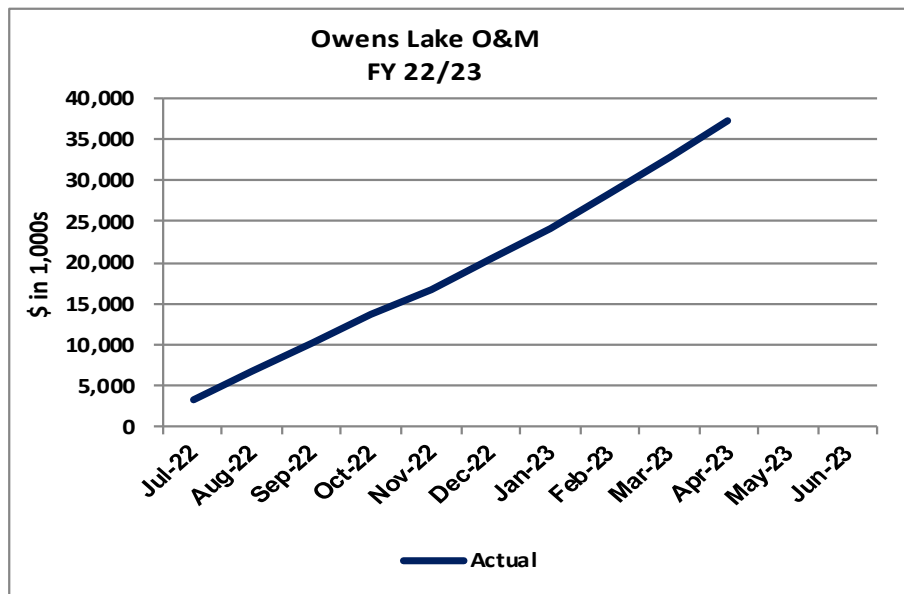
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board approved annual budget vs. actual expenditures

TARGET & ACCEPTABLE VARIANCE (FY 22/23): N/A – for information only

STATUS: **Information Only**

FYTD as of:	Actual (\$ in K)
Jul-22	3,327
Aug-22	6,698
Sep-22	10,189
Oct-22	13,638
Nov-22	16,558
Dec-22	20,402*
Jan-23	24,098*
Feb-23	28,444
Mar-23	32,810
Apr-23	37,212
May-23	
Jun-23	



SOURCE OF DATA: Fls 3022002 and 4013006

\*Dec. 2022 and Jan. 2023 updated to include Lower Owens River O&M actuals, after these updates all months reflect actual O&M for both Owens Lake and Lower Owens River.

## 1. BACKGROUND / PURPOSE

- Proper operation and maintenance of dust control facilities at Owens Lake is necessary to comply with regulatory requirements. Dust control during the dust season, which lasts from October 16<sup>th</sup> through June 30<sup>th</sup>, is a regulatory mandate to ensure air quality in the area.

## 2. ACHIEVEMENTS / MILESTONES MET

- Performed as-needed ongoing brine, tillage, and gravel maintenance. Gravel maintenance in T1A-3 was completed.
- Addressed Shallow Flood compliance coverage shortfall in areas included within Great Basin's Notice of Comply. (Immediate repairs have been completed and the Dust Control Areas are compliant.)
- Performed ongoing lake-wide road maintenance.
- Repaired berm breaches in T5-3 in February 2023.
- Repaired berm road at T4-3 in February 2023.
- Repaired berm breaches in T25 and T27 in March 2023. 100% complete.
- Road repair work at T37-2b in March 2023. 100% complete.
- T29 berm armoring completed in March 2023. 100% complete.
- T36 berm repair work completed in March 2023. 100% complete.
- Designs for larger scale improvements have been developed and submitted to permitting agencies for their approval. Approval from California State Lands Commission (CSLC) has been secured, pending are approvals from California Department of Fish & Wildlife (CDFW) and Lahontan Regional Water Quality Control Board. This includes additional berms to enhance ponding, tailwater pumps to recirculate brine water for vegetation mitigation, and redesignation of some Shallow Flood areas to Managed Vegetation areas.
- Analyzed and addressed major flash flood impacts resulting from a 100-year storm event and the Governor's declared state of emergency for the region. Multiple DCAs were damaged and include T13-1, T17-1, T17-2N, and T17-2S. A variance for compliance was obtained from the air

Within Acceptable Variance ■ Outside Acceptable Variance ■ Exceeds Target ■ Needs Attention ■

regulator, Great Basin Unified Air Pollution Control District. Work is ongoing and will include construction of approximately 4 miles of new berms to enhance shallow flood ponding for compliance. Permissions for new berms have been secured and construction started on February 21, 2023 in T13-1. Work paused on March 8, 2023 due to reallocation of resources to address emergency runoff related work. Work resumed on 4/7/2023. 15% complete as of the end of April 2023.

- Alternatives for protection from stormwater events in flood damaged DCAs have been identified. Approach to analyze alternatives is in progress, and once finalized, will be used for lake-wide evaluation of stormwater protection measures.
- The Vacuum Fault Interrupting (VFI) electrical switchgear at T5, which provides power to the two main circuits in the south sand sheet area (including T7 through T21) was replaced on February 8, 2023.
- Fertigation stations at Managed Vegetation South dust control areas T5, T6, T7, and T8 were prepared for the 2023 irrigation season in March 2023.
- In anticipation of high runoff, berm armoring of up to 15 miles of dust control areas were initiated in DCAs adjacent to the Brine pool (includes T11, T16, T18, T23-5, T25, T27, T29, T36, T37-2c, and T37-2d). 12% complete as of the end of April 2023.
- Continuous road repair work in T36-3 and T29-3d due to high water levels going through the delta from runoff. 70% complete as of the end of April 2023.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

- Not applicable – for information only.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

- Staff will continue to monitor operations and maintenance of dust control activities to ensure efficient and appropriate O&M expenditures.
- Continue to hire staff.

# Joint System



# LADWP RATES METRIC – Total FTEs Against Plan

RESPONSIBLE MANAGER: Gregory Reed

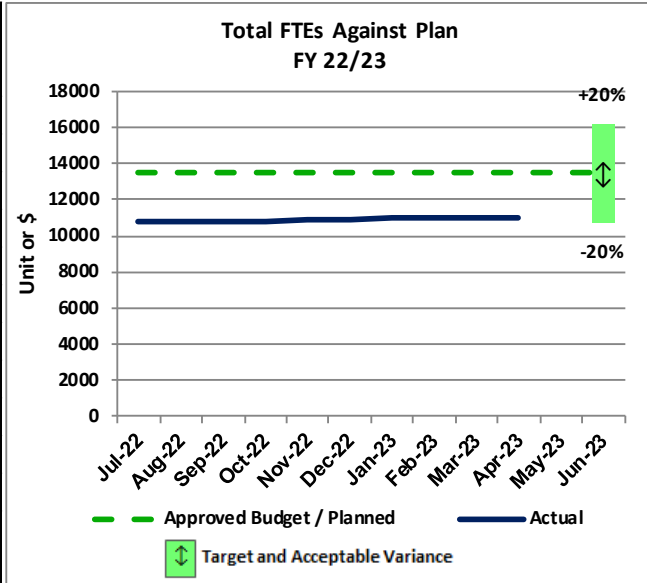
REPORTING PERIOD: April 2023 REVISED

DEFINITION OF RATES/EQUITY METRIC: Total number of occupied full-time equivalent (FTE) positions vs. annual Authorized Personnel Resolution

TARGET & ACCEPTABLE VARIANCE (FY 22/23): +/- 20%

**STATUS:** Within Acceptable Variance

FYTD as of:	Approved Budget / Planned	Actual	Variance		Re-Estimate (If Applicable)
			Unit or \$	%	
Jul-22	13,456	10,765	-2691	-20.0%	
Aug-22	13,456	10,804	-2652	-19.7%	
Sep-22	13,456	10,826	-2630	-19.5%	
Oct-22	13,456	10,825	-2631	-19.6%	
Nov-22	13,456	10,895	-2561	-19.0%	
Dec-22	13,456	10,936	-2520	-18.7%	
Jan-23	13,456	10,973	-2483	-18.5%	
Feb-23	13,456	10,960	-2496	-18.5%	
Mar-23	13,456	11,035	-2421	-18.0%	
Apr-23	13,456	11,021	-2435	-18.1%	
May-23	13,456				
Jun-23	13,456				
<b>Acceptable Variance</b>			<b>± 20%</b>		



SOURCE OF DATA: Monthly Staffing Report

**1. BACKGROUND / PURPOSE**

Workforce Development will track LADWP’s progress in achieving the staffing levels necessary to accomplish the strategic goals set forth in the Water and Power Rate Ordinances.

**2. ACHIEVEMENTS / MILESTONES MET**

**MONTHLY ACTIVITY:**

External Hires = 35  
 Attrition = 32  
 Net New Employees = 3

**YEAR-TO-DATE ACTIVITY:**

External Hires = 636  
 Attrition = 370  
 Net New Employees = 266

Total Staffing as of 6/30/2022 = 10,755  
 Net New Employees = 266  
 Total Staffing as of 4/30/2023 = 11,021

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

The variance is caused by an increased APR for Fiscal Year 22-23. LADWP will continue to remain in the acceptable variance target range as long as occupancy is greater than 10,631 FTEs. The variance is expected to decrease as Power, Water, and Joint Systems fill positions to their approved APR levels.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

Employment Services will continue to monitor the actual occupied positions against the annual Authorized Personnel Resolution.

# LADWP RATES METRIC – *Financial and Human Resources Replacement Project (Project) Total Spending Against Plan (Joint)*

**RESPONSIBLE MANAGER:** Rita Khurana-Carwile *R. Carwile* June 9, 2023  
 Information Technology Program Management Office

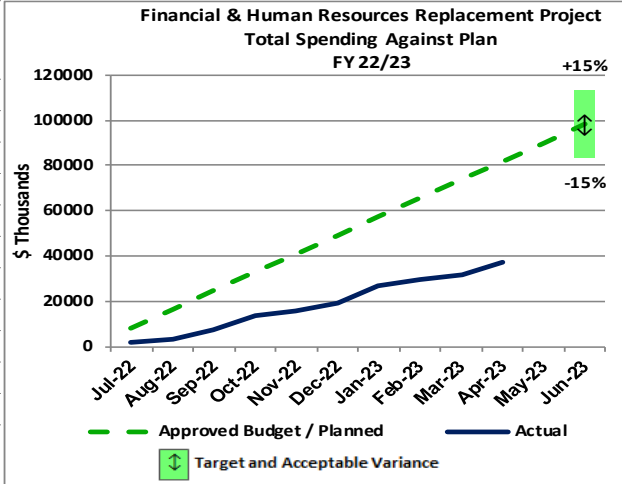
**REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Board approved annual budget vs. actual expenditures (\$ thousand)

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** +/-20% of FY 22/23 Board Approved Budget

**STATUS:** Outside Acceptable Variance

FYTD as of:	Approved Budget / Planned	Actual	Variance		Re-Estimate (If Applicable)
			Unit or \$	%	
Jul-22	8,190.4	1,790.4	-6400	-78.1%	
Aug-22	16,380.8	3,287.1	-13094	-79.9%	
Sep-22	24,571.2	7,165.0	-17406	-70.8%	
Oct-22	32,761.6	13,414.4	-19347	-59.1%	
Nov-22	40,952.0	15,495.5	-25457	-62.2%	
Dec-22	49,142.4	18,985.2	-30157	-61.4%	
Jan-23	57,332.8	26,612.4	-30720	-53.6%	\$ 35,754.81
Feb-23	65,523.2	29,869.6	-35654	-54.4%	\$ 40,862.64
Mar-23	73,713.6	31,823.3	-41890	-56.8%	\$ 45,970.47
Apr-23	81,904.0	37,092.9	-44811	-54.7%	\$ 51,078.30
May-23	90,094.4				\$ 58,536.13
Jun-23	98,351.8				\$ 65,993.96
<b>Acceptable Variance</b>			± 15%		



**SOURCE OF DATA:** FI 29401 and 28189

**1. BACKGROUND/PURPOSE**

- This Software as a Service (SaaS) Project established the Department's (Dept.) integrated Enterprise Resource Planning (ERP) Program consisting of Financial, Payroll and Human Resources Management
  - Procurement was removed from the ERP project in October 2020 due to Workday ERP SaaS limitations. Deployment of Ivalua (SCS) was cancelled in April 2023. Present-state supply chain systems that will remain (i.e. eRSP and Maximo) will be integrated with ERP.
- The ERP program is an enterprise-level initiative to enable the Dept. to update/improve its business processes & support its strategic goals by migrating/replacing outdated technologies & platforms to an integrated & sustainable set of modern, robust & easy-to-use Software (SW) solutions
- To establish the ERP project, the Dept. engaged in a two-stage procurement process:
  - Stage One: Request for Qualification for best fit SW: "Workday" was selected
  - Stage Two: Piggybacked off City of LA System Integrator (SI) contract with Workday

- April 15, 2021: ERP Project Kicked-Off
- March 24, 2022: ERP HR/Payroll Planning Stage Completion
- January 19, 2023: ERP Financial Management Planning Stage Completion

**3. PERFORMANCE/VARIANCE ANALYSIS & YEAR END PROJECTION**

- HR/Payroll Planning Stage sign-off was delayed pending final review of deliverables. Signed off March 24, 2022
- HR/Payroll Architect Stage is at 99% of completion, with a few requirements that have been carried forward to Configuration and Prototype stage for items such as WMIS integration, Disability, and a few other requirements as proposed by Workday and approved by LADWP PM team and domain leads
- HR/Payroll Configuration and Prototype Stage, continues to progress in parallel (48% complete)
- Financial Management Planning Stage sign-off was delayed due to final review of deliverables. This stage was signed off January 19, 2023
- Financial Management Architect Stage continues to progress (69% complete)
- Due to overall delays in HR/Payroll and Financial Management (Phases II and III) contract spending for Professional Services is projected to be underspent \$20 million this year and Material Services are projected to be \$3 million underspent
- ERP labor expenditures continue to be below approved budgets levels as hiring for additional positions continues. Year-end projections \$1 million underspent.

**2. ACHIEVEMENTS/MILESTONES MET**

- June 22 to July 9, 2020: Shortlist Demo & Interviews conducted
- July 29, 2020: Workday SaaS Selected
- September, 2020: Determination to piggyback on the City of LA's SI contract and open negotiations with Workday for statement of work/contract development
- March 9, 2021: ERP contract negotiations & Statement of Work development concludes

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention



**4. MITIGATION PLAN AND/OR RECOMMENDATIONS**

- Due to delays in the project, such as planning, designing and testing running longer than expected, the FIs have been re-estimated to fall in line with year-end spending projections
- Project expenditures continue as milestones are achieved
- Continue proceeding with achieving ERP Program milestones by utilizing tools that enable remote access, such as WebEx, in lieu of face to face meetings. Use of these tools enable the project to continue due to continued telecommuting by many project members (including Workday staff)
- In order to reset the project timeline, the project is proposed to be re-baselined. Pending negotiations, the timeline is proposed to be extended by one year, increasing project costs by \$23.7 million. The proposed go live date for the HR/Payroll project is January 2025 and the proposed go live date for the Financial Management project is July 2025.

Note: Ivalua Procurement Module deployment expenses continue to be charged to the ERP Project. These charges will be stopping as deployment of Ivalua was cancelled in April 2023.

# LADWP RATES METRIC – *Financial and Human Resources Replacement Project Progress Against Schedule (Joint)*

RESPONSIBLE MANAGER: Rita Khurana-Carwile *R Carwile* June 9, 2023  
Information Technology Program Management Office

REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: FS & HRMS Project Milestones vs. Compliance Deadlines

TARGET & ACCEPTABLE VARIANCE (FY 22/23): N/A

STATUS **Information Only**

Milestone/Deadline Description	Planned	Actual
ERP Draft RFQ Released to Steering Committee for Review	October 4, 2019	October 4, 2019
ERP RFQ Draft approved by the LADWP General Manager	October, 2019	October 23, 2019
ERP RFQ Draft approved by the Steering Committee	October, 2019	October 30, 2019
ERP Software (SW) RFQ Released	November 19, 2019	November 19, 2019
ERP SW Bidders' Conference	December 4, 2019	December 4, 2019
ERP SW RFQ Responses Due	January 14, 2020	January 14, 2020
Response Evaluation & Demos	April, 2020	June 22-July 9, 2020
ERP Software Selection Made	May, 2020	July 2020
Decision to piggyback on City of LA's System Integrator contract made	September 2020	September 2020
ERP Contract Negotiations & Statement of Work Development	February, 2021	March 9, 2021
ERP Project Kick-Off	April 2021	April 15, 2021
ERP HR/Payroll Planning Stage Completion	September 2021	March 24, 2022
ERP HR/Payroll Architect Stage Completion	April 2022	
ERP HR/Payroll Configure and Prototype Stage Completion	December 2022	
ERP HR/Payroll Testing Stage Completion	October 2023	
ERP Deployment of HR and Payroll Modules (Phase I)	January, 2024	
ERP Financials Planning Stage Completion	May, 2022	January 19, 2023
ERP Financials Architect Stage Completion	January, 2023	
ERP Financials Configure and Prototype Stage Completion	August, 2023	
ERP Financials Testing Stage Completion	April, 2024	
ERP Deploy of Financials Module (Phase II)	July, 2024	

SOURCE OF DATA: FI 29401 and 28189

## 1. BACKGROUND/PURPOSE

- This Software as a Service (SaaS) Project established the Department's (Dept.) integrated Enterprise Resource Planning (ERP) Program consisting of Financial, Payroll and Human Resources Management
  - Procurement was removed from the ERP project in October 2020 due to Workday ERP SaaS limitations. Deployment of Ivalua (SCS) was cancelled in April 2023. Present-state supply chain systems that will remain (i.e. eRSP and Maximo) will be integrated with ERP.
- The ERP program is an enterprise-level initiative to enable the Dept. to update/improve its business processes & support its strategic goals by migrating/replacing outdated technologies & platforms to an integrated & sustainable set of modern, robust & easy-to-use Software (SW) solutions.
- To establish the ERP project, the Dept. engaged in a two-stage procurement process:
  - Stage One: Request for Qualification for best fit SW: "Workday" was selected
  - Stage Two: Piggybacked off City of LA System Integrator (SI) contract with Workday

- June 22 to July 9, 2020: Shortlist Demo & Interviews conducted
- July 29, 2020: Workday SaaS Selected
- September, 2020: Determination to piggyback on the City of LA's SI contract and open negotiations with Workday for statement of work/contract development
- March 9, 2021: ERP contract negotiations & Statement of Work development concludes
- April 15, 2021: ERP Project Kicked-Off
- March 24, 2022: ERP HR/Payroll Planning Stage Completion
- January 19, 2023: ERP Financial Management Planning Stage Completion

## 3. PERFORMANCE/VARIANCE ANALYSIS & YEAR END PROJECTION

- ERP labor expenditures were below approved budgets as hiring for additional positions continues
- HR/Payroll Planning Stage sign-off was delayed pending final review of deliverables. Signed off March 24, 2022
- Financial Management Planning Stage sign-off was delayed due to final review of deliverables. This stage was signed off January 19, 2023

## 2. ACHIEVEMENTS/MILESTONES MET

Within Acceptable Variance  Outside Acceptable Variance  Exceeds Target  Needs Attention

- HR/Payroll Architect Stage is at 99% of completion, with a few requirements that have been carried forward to Configuration and Prototype stage for items such as WMIS integration, Disability, and a few other requirements as proposed by Workday and approved by LADWP PM team and domain leads
- HR/Payroll Configuration and Prototype Stage, continues to progress in parallel (48% complete)
- Financial Management Architect Stage continues to progress (69% complete)

**4. MITIGATION PLAN AND/OR RECOMMENDATIONS**

- Decision to piggyback on City of LA's SI contract, rather than put out a Request for Proposal, was made to speed up deployment of ERP Modules due to pending retirement of key staff & all current modules risk of failure. Failure of any of these legacy systems would have significant impact on LADWP operations
- Continue proceeding with achieving ERP Program milestones by utilizing tools that enable remote access, such as WebEx, in lieu of face to face meetings. Use of these tools enable the project to continue due to continued telecommuting by many project members (including Workday staff)
- Some HR/Payroll Architect Stage activities were delayed and sign off of the stage is pending completion however no impact to the overall critical path of the project as of this report due to running other stages in parallel and compressing some activities
- Some Financial Management Architect Stage activities were delayed and sign off of the stage is pending completion however no impact to the overall critical path of the project as of this report due to running other stages in parallel and compressing some activities
- In order to reset the project timeline, the project is proposed to be re-baselined. Pending negotiations, the timeline is proposed to be extended by one year, increasing project costs by \$23.7 million. The proposed go live date for the HR/Payroll project is January 2025 and the proposed go live date for the Financial Management project is July 2025.

Note: Ivalua SaaS deployment expenses were previously being charged to the ERP Project. These charges will be stopping as deployment of Ivalua (SCS) was cancelled in April 2023.

# LADWP RATES METRIC – *Cyber Security Capital (Joint)*

*Marco A. Elizarraras*

RESPONSIBLE MANAGER: Marco Elizarraras

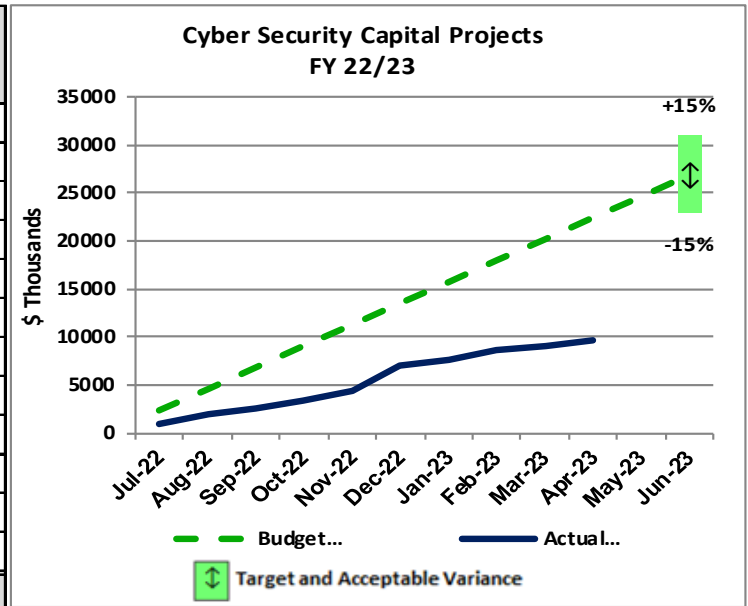
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board Approved Annual Budget vs. Actual Expenditures

TARGET & ACCEPTABLE VARIANCE (FY 22/23): FY 22/23 Board Approved Budget (+/- 15%)

STATUS: **Outside Acceptable Variance**

FYTD as of:	Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	2246	940	-1306	-58.1%	
Aug-22	4492	1956.9	-2535	-56.4%	
Sep-22	6738	2621.7	-4116	-61.1%	
Oct-22	8984	3248.8	-5735	-63.8%	
Nov-22	11230	4417.1	-6813	-60.7%	
Dec-22	13476	6995.7	-6480	-48.1%	
Jan-23	15722	7694.5	-8028	-51.1%	
Feb-23	17968	8517.7	-9450	-52.6%	
Mar-23	20214	9083.1	-11131	-55.1%	
Apr-23	22460	9532	-12928	-57.6%	
May-23	24706				
Jun-23	26952				
<b>Acceptable Variance</b>			<b>± 15%</b>		



SOURCE OF DATA: FI 28870

## 1. BACKGROUND / PURPOSE

Cybersecurity threat landscape continue to evolve rapidly, especially with the adoption of cloud. Enterprise Cyber Security is engaging in a number of initiatives to enhance and re-engineer LADWP’s cybersecurity systems and processes to meet business needs and address potential cyber threats.

## 2. ACHIEVEMENTS / MILESTONES MET

- Completed evaluation of TORP for Enterprise Cybersecurity Services and Training
- Migration from Exchange on-prem to Exchange Online in progress for all employees – 46% complete
- TORP Task Order for Identity and Access management (IAM) Re-engineering – negotiation in progress
- Revised and published Information Security Policy (ISP) version 1.2.9
- Charter for IT Risk committee draft completed.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

Invoice issues have been resolved with vendors; working with Supply Chain and Accounts Payable to process over \$3M in payments. New TORPs are not projected to hit the budget until after the next fiscal year. Re-alignment of O&M and Capital Labor costs is being addressed as some of the capital projects have now switched to O&M.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

We will continue to work with vendors, Supply Chain services, and Accounts Payable Section to address billing related issues. Additionally, we are exploring additional contracting or purchasing vehicles to allow for additional planned cyber related purchases.

Budget will continue to be monitored and has been re-estimated.

# LADWP RATES METRIC – *Customer Information System Upgrades (Joint)*

RESPONSIBLE MANAGER: Annamae Peji

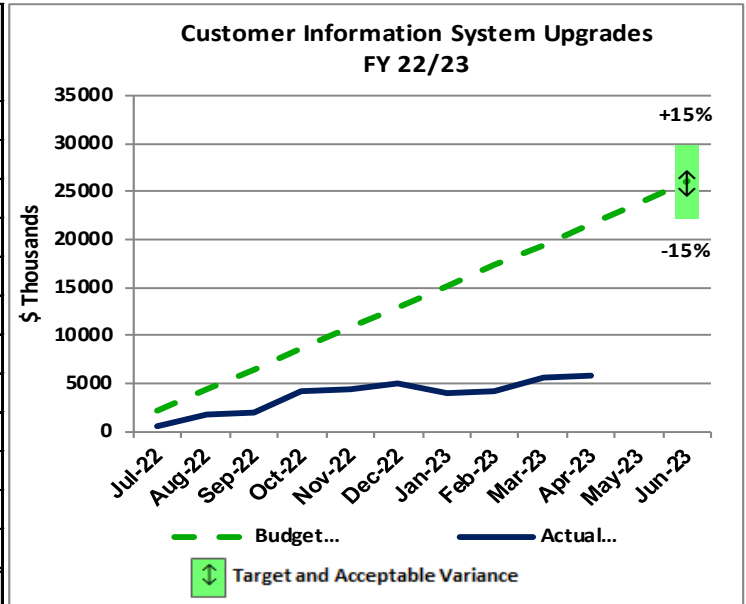
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Board Approved Annual Budget vs. Actual Expenditures

TARGET & ACCEPTABLE VARIANCE (FY 22/23): FY 22/23 Board Approved Budget (+/- 15%)

STATUS: Outside Acceptable Variance

FYTD as of:	Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	2163	608.9	-1554	-71.8%	
Aug-22	4326	1819.4	-2506	-57.9%	
Sep-22	6488	2011.6	-4477	-69.0%	
Oct-22	8651	4167.7	-4483	-51.8%	
Nov-22	10814	4387.2	-6426	-59.4%	
Dec-22	12976	4949.3	-8027	-61.9%	
Jan-23	15139	3973.6	-11166	-73.8%	
Feb-23	17302	4226.5	-13076	-75.6%	
Mar-23	19465	5642.3	-13823	-71.0%	
Apr-23	21628	5864.7	-15763	-72.9%	
May-23	23790				
Jun-23	25954				
<b>Acceptable Variance</b>			<b>± 15%</b>		



SOURCE OF DATA: FI 28915

## 1. BACKGROUND / PURPOSE

The Customer Information System supports the LADWP’s customer billing functions and consists of; Customer Care and Billing (CC&B), Mobile Workforce Management (MWM), Meter Data Management (MDM), integration applications supporting over 50 interfaces with external systems, Field Collection System (FCS) and Bill and Letter print formatting. CIS will be upgraded and enhanced to improve efficiencies and provide new functionality in support of the Department’s objectives.

## 2. ACHIEVEMENTS / MILESTONES MET

- Continuing Requirements Gathering phase for the Merchant Services replacement and transition from Wells Fargo to JP Morgan Chase/Paymentus.
- Implemented changes for additional reports and other functionality changes for Non-Billed Budget/Level Pay Phase 1.5.

- Completed Requirements and Development started for Web Self Service Level Pay online enrollment
- Began Requirements Gathering and Design phase for Disconnect Moratorium Phase 2 (changes for the MWM handheld devices)
- Provided critical support to Phase 2 of Customer Service Division’s pilot project for Business Process Optimization
- Continuing Assessments and Planning phase for Customer Cloud Services (CCS) migration related to Billing Exceptions and Temporary Workarounds and Hot Fixes
- Completed Requirements Gathering and Design and Development Started for new integration with Customer Relation Management (CRM) related to Major Account alerts in CCB
- Completed Requirements Gathering and Design phase for new integration with CRM related to EZ-Save



**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

Labor costs are lower due to delays in hiring activity to fill vacant positions. Lower labor costs are also related to the delays with the kickoff/implementation of some capital project initiatives (such as Water Trouble Work Management system replacement and AMI).

Additionally, there are also delays in the purchase of software licenses needed to support AMI and implementation of related technology.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

Hiring activity to fill vacant positions is still ongoing.

Expenditures related to additional activities related to the Customer Cloud Services (CCS) project have started.

Additional activities related to an AMI Proof of Concept project are also being planned.

Budget will be monitored and has been re-estimated.

# LADWP RATES METRIC – Information Technology Services (ITS) Staffing Program (Joint)

*Mark Northrup*

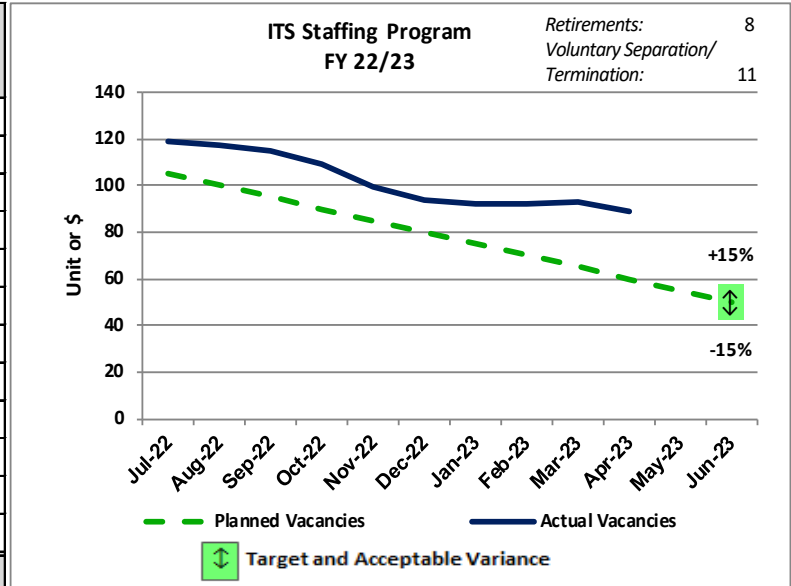
RESPONSIBLE MANAGER: Mark S. Northrup / Analee Klee

REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Number of Full Time Equivalents (FTEs) for ITS employed as compared to plan  
TARGET & ACCEPTABLE VARIANCE (FY 22/23): Vacant budgeted ITS positions at 50 vacancies or less by the end of the fiscal year (+/- 15%)

STATUS: Outside Acceptable Variance

FYTD as of:	Planned Vacancies	Actual Vacancies	Variance		Re-Estimate (If Applicable)
			Vacancies	%	
Jul-22	105	119	14	13.3%	
Aug-22	100	117	17	17.0%	
Sep-22	95	115	20	21.1%	
Oct-22	90	109	19	21.1%	
Nov-22	85	99	14	16.5%	
Dec-22	80	94	14	17.5%	
Jan-23	75	92	17	22.7%	
Feb-23	70	92	22	31.4%	
Mar-23	65	93	28	43.1%	
Apr-23	60	89	29	48.3%	
May-23	55				
Jun-23	50				
<b>Acceptable Variance</b>			± 15%		



**SOURCE OF DATA: Hiring Plan/Annual Personnel Resolution and LADWP Monthly Staffing Report**

Method of Calculation: Reported Actual Vacancies = Approved Headcount less Adjusted Occupancy (excludes Trainee Classifications)

**1. BACKGROUND / PURPOSE**

Ensure that Information Technology Services (ITS) hires enough resources to provide support for existing and future IT-related projects across LADWP.

FTE count will not be met by fiscal year end but ITS will continue to prioritize hiring as a critical function.

**2. ACHIEVEMENTS / MILESTONES MET**

As of April 30<sup>th</sup>, ITS has a net new employee count of 34 (includes 4 in trainee classes) notwithstanding attrition associated with retirement, voluntary separation and terminations.

**4. MITIGATION PLAN AND / OR RECOMMENDATIONS**

ITSD will continue with its mass hiring strategy for entry level positions, and will pursue to effectuate changes (with Human Resources Division’s assistance) to the certification list for targeted critical Civil Service classes in order to access Open list candidates faster.

**3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION**

Hiring has been partially affected due to delays in the refresh of critical Civil Service lists ITS has exhausted. It is projected that the target

Additionally, outreach to engage future IT graduates continues. ITS onboarded 10 exempt Student Professional Workers this fiscal year.

# LADWP RATES METRIC – LADWP EMPLOYEE COST BUDGET VS. ACTUAL (LADWP)

RESPONSIBLE MANAGER: LADWP Senior Management

REPORTING PERIOD: April 2023

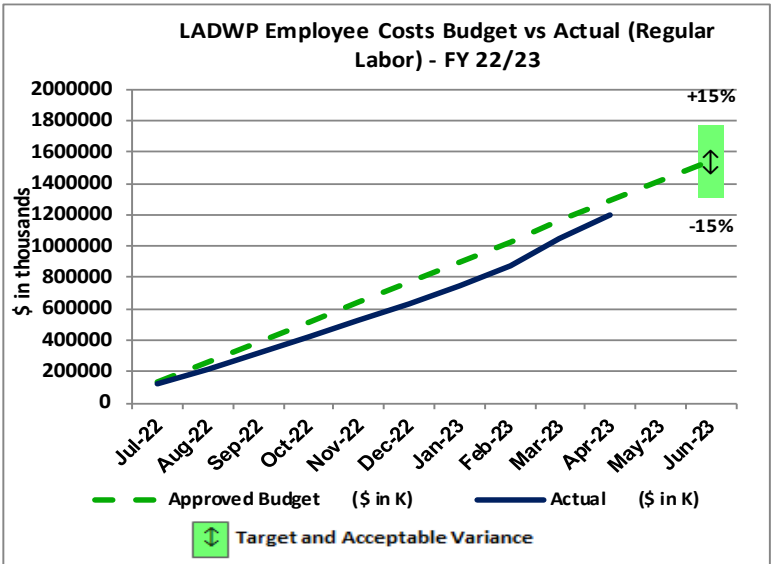
DEFINITION OF RATES METRIC: LADWP employee costs (including regular labor, overtime, pension and healthcare, excluding daily exempt and Utility Pre-Craft Trainee) budget vs. actual (\$ in thousands)

TARGET & ACCEPTABLE VARIANCE (FY 22/23): +/- 15%

SOURCE OF DATA: ORACLE (HPBUDGET) - Rates Metrics Report

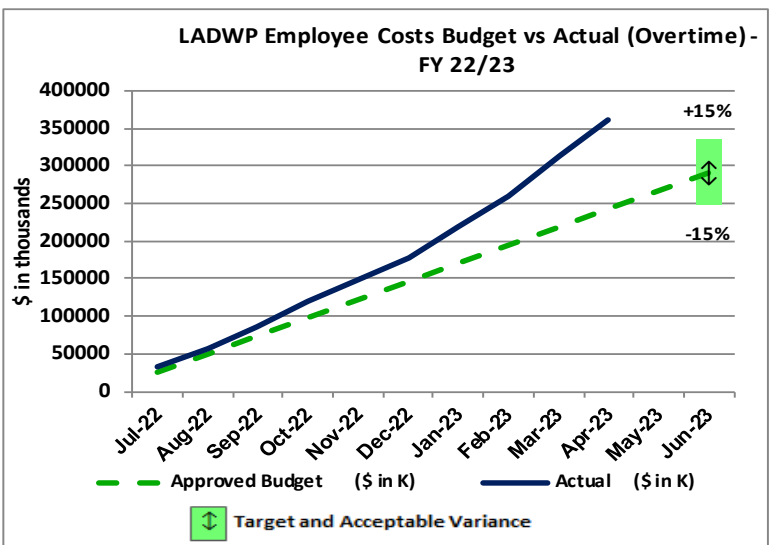
REGULAR LABOR STATUS: Within Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	128,796	120,012	-8,784	-6.8%	
Aug-22	257,591	218,668	-38,923	-15.1%	
Sep-22	386,387	324,381	-62,006	-16.0%	
Oct-22	515,182	428,502	-86,680	-16.8%	
Nov-22	643,978	522,992	-120,986	-18.8%	
Dec-22	772,773	634,129	-138,644	-17.9%	
Jan-23	901,569	753,086	-148,483	-16.5%	
Feb-23	1,030,364	874,546	-155,818	-15.1%	
Mar-23	1,159,160	1,050,525	-108,635	-9.4%	
Apr-23	1,287,955	1,196,151	-91,804	-7.1%	
May-23	1,416,751				
Jun-23	1,545,546				
Acceptable Variance			± 15%		



OVERTIME STATUS: Outside Acceptable Variance

FYTD as of:	Approved Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	24,291	32,385	8,094	33.3%	
Aug-22	48,581	56,946	8,365	17.2%	
Sep-22	72,872	86,787	13,915	19.1%	
Oct-22	97,162	118,644	21,482	22.1%	
Nov-22	121,453	148,040	26,587	21.9%	
Dec-22	145,744	178,649	32,906	22.6%	
Jan-23	170,034	219,351	49,317	29.0%	
Feb-23	194,325	258,667	64,342	33.1%	
Mar-23	218,615	314,123	95,508	43.7%	
Apr-23	242,906	361,172	118,266	48.7%	
May-23	267,196				
Jun-23	291,487				
Acceptable Variance			± 15%		



YTD as of April 2023					
Employee Cost Category	Budget (\$ in K)	Actual (\$ in K)	Var (\$ in K)	Variance %	FY 22/23 Approved
Regular Labor	1,287,955	1,196,151	-91,804	-7.1%	1,545,546
Overtime	242,906	361,172	118,266	48.7%	291,487
<b>Regular Labor + Overtime</b>	<b>1,530,861</b>	<b>1,557,323</b>	<b>26,462</b>	<b>1.7%</b>	<b>1,837,033</b>
Health Care Allocation	307,366	300,855	-6,511	-2.1%	368,839
Retirement & Death Benefit	182,348	308,514	126,167	69.2%	218,817
<b>Total</b>	<b>2,020,574</b>	<b>2,166,692</b>	<b>146,118</b>	<b>7.2%</b>	<b>2,424,689</b>

# LADWP RATES METRIC – Total Number of Water Distribution Employees per Water Customer Meter (Water)

RESPONSIBLE MANAGER: Corporate Performance

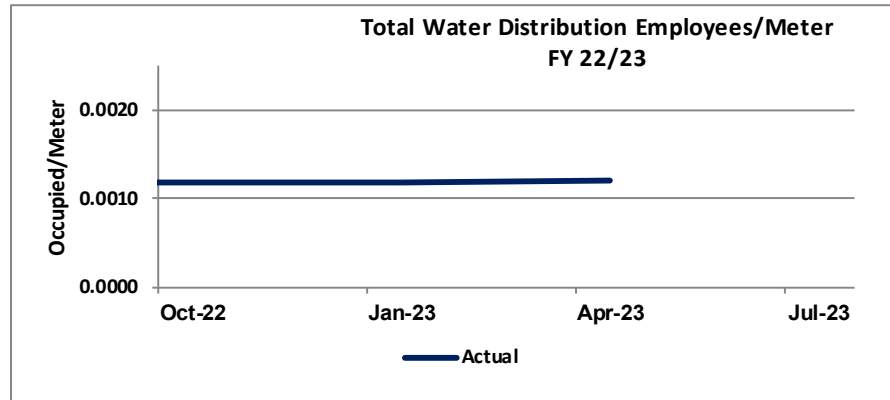
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Total number of water distribution employees (excluding daily exempt and utility pre-craft trainees) per water customer meters

TARGET & ACCEPTABLE VARIANCE (FY 22/23): No Target

STATUS: Information Only

FYTD as of:	Actual
Oct-22	0.0012
Jan-23	0.0012
Apr-23	0.0012
Jun-23	



SOURCE OF DATA: LADWP Monthly Staffing Report, Customer Care and Billing (CCB) System

## 1. BACKGROUND / PURPOSE

On August 20 2021, the Board of Water and Power Commissioners approved Resolution 022040 adding the Total Number of Water Distribution Employees per Water Customer Meter metric to the LADWP Rates Metrics. This metric measures the total number of water distribution employees (excluding daily exempt and utility pre-craft trainees) per water customer meter. This metric does not have a target and is provided as Information Only.

## 2. ACHIEVEMENTS / MILESTONES MET

Data for the Total Number of Water Distribution Employees is obtained from the LADWP Monthly Staffing Report provided by Human Resources Division.

Data for the Total Number of Water Meters is obtained through a query of the CCB system and provided by Information Technology Services. It is important to note that the data for total number of water meters is point-in-time which means that the data represents the number of meters at the exact date and time the query was executed. Additionally, data for

the number of water meters cannot be obtained for past dates and times.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

Total Number of Water Distribution Employees (excluding daily exempt and utility pre-craft trainees) as of April 2023 = 864

	10/22	01/23	04/23	06/23
Water	886	879	864	

Total Number of Water Meters as of April 2023 = 714,416

	10/22	01/23	04/23	06/23
Water	713,574	714,029	714,416	

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

Continue to provide this dashboard to the Board of Water and Power Commissioners and the Office of Public Accountability for review.

# LADWP RATES METRIC – Total Number of Power Distribution Employees per Power Customer Meter (Power)

RESPONSIBLE MANAGER: Corporate Performance

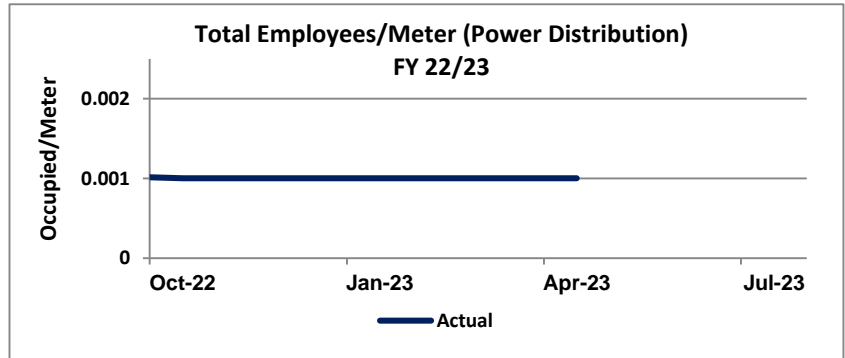
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Total number of power distribution employees (excluding daily exempt and utility pre-craft trainees) per electric customer meters

TARGET & ACCEPTABLE VARIANCE (FY 22/23): No Target

STATUS: Information Only

FYTD as of:	Actual
Oct-22	* 0.0010
Jan-23	* 0.0010
Apr-23	0.0010
Jun-23	



SOURCE OF DATA: LADWP Monthly Staffing Report, Customer Care and Billing (CCB) System

\*Updated to reflect Org 74-Int Gen Substation Oprns. is no longer part of Distribution Infrastructure

## 1. BACKGROUND / PURPOSE

On August 20 2021, the Board of Water and Power Commissioners approved Resolution 022040 adding the Total Number of Power Distribution Employees per Power Customer Meter metric to the LADWP Rates Metrics. This metric measures the total number of power distribution employees (excluding daily exempt and utility pre-craft trainees) per power customer meter. This metric does not have a target and is provided as Information Only.

## 2. ACHIEVEMENTS / MILESTONES MET

Data for the Total Number of Power Distribution Employees is obtained from the LADWP Monthly Staffing Report provided by Human Resources Division.

Data for the Total Number of Power Meters is obtained through a query of the CCB system and provided by Information Technology Services. It is important to note that the data for total number of power meters is point-in-time which means that the data represents the number of meters at the exact date and time the query was executed. Additionally, data for the number of power meters cannot be obtained for past dates and times.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

Total Number of Power Distribution Employees (excluding daily exempt and utility pre-craft trainees) as of April 2023 = 1,658

	10/22	01/23	04/23	06/23
Power	1,618	1,658	1,658	

Total Number of Power Meters as of April 2023 = 1,625,169

	10/22	01/23	04/23	06/23
Power	1,619,026	1,622,242	1,625,169	

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

Continue to provide this dashboard to the Board of Water and Power Commissioners and the Office of Public Accountability for review.



# LADWP RATES METRIC – *Total Number of Water and Power Employees per Customer Meter (Joint)*

**RESPONSIBLE MANAGER:** Corporate Performance

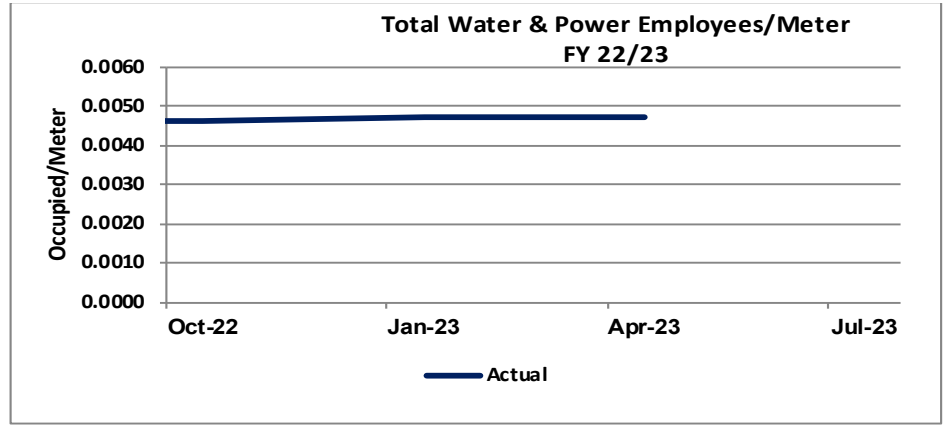
**REPORTING PERIOD:** April 2023

**DEFINITION OF RATES METRIC:** Total number of water and power employees (excluding daily exempt and utility pre-craft trainees) per water and power meters

**TARGET & ACCEPTABLE VARIANCE (FY 22/23):** No Target

**STATUS:** Information Only

FYTD as of:	Actual
Oct-22	0.0046
Jan-23	0.0047
Apr-23	0.0047
Jun-23	



**SOURCE OF DATA:** LADWP Monthly Staffing Report, Customer Care and Billing (CCB) System

## 1. BACKGROUND / PURPOSE

On May 5, 2017, the Board of Water and Power Commissioners approved Resolution 017252 adding the Total Number of Water and Power Employees per Customer Meter metric to the LADWP Rates Metrics. This metric measures the total number of water and power employees (excluding daily exempt and utility pre-craft trainees) per water and power meter. This metric does not have a target and is provided as Information Only.

## 2. ACHIEVEMENTS / MILESTONES MET

Data for the Total Number of Water and Power Employees is obtained from the LADWP Monthly Staffing Report provided by Human Resources Division.

Data for the Total Number of Water and Power Meters is obtained through a query of the CCB system and provided by Information Technology Services. It is important to note that the data for total number of water and power meters is point-in-time which means that the data represents the number of meters at the exact date and time the query was executed. Additionally, data for the

number of water and power meters cannot be obtained for past dates and times.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

Total Number of Water and Power Employees (excluding daily exempt and utility pre-craft trainees) as of April 2023 = 11,021

	10/22	01/23	04/23	06/23
Power	4,822	4,904	4,982	
Water	2,188	2,192	2,176	
Joint	3,815	3,877	3,863	
Total	10,825	10,973	11,021	

Total Number of Water and Power Meters as of April 2023 = 2,339,585

	10/22	01/23	04/23	06/23
Power	1,619,026	1,622,242	1,625,169	
Water	713,574	714,029	714,416	
Total	2,332,600	2,336,271	2,339,585	

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

Continue to provide this dashboard to the Board of Water and Power Commissioners and the Office of Public Accountability for review.

# LADWP RATES METRIC – GHG Emissions Reduction Ratio (Joint)

RESPONSIBLE MANAGER: Katherine Rubin

REPORTING PERIOD: As of April, 2023

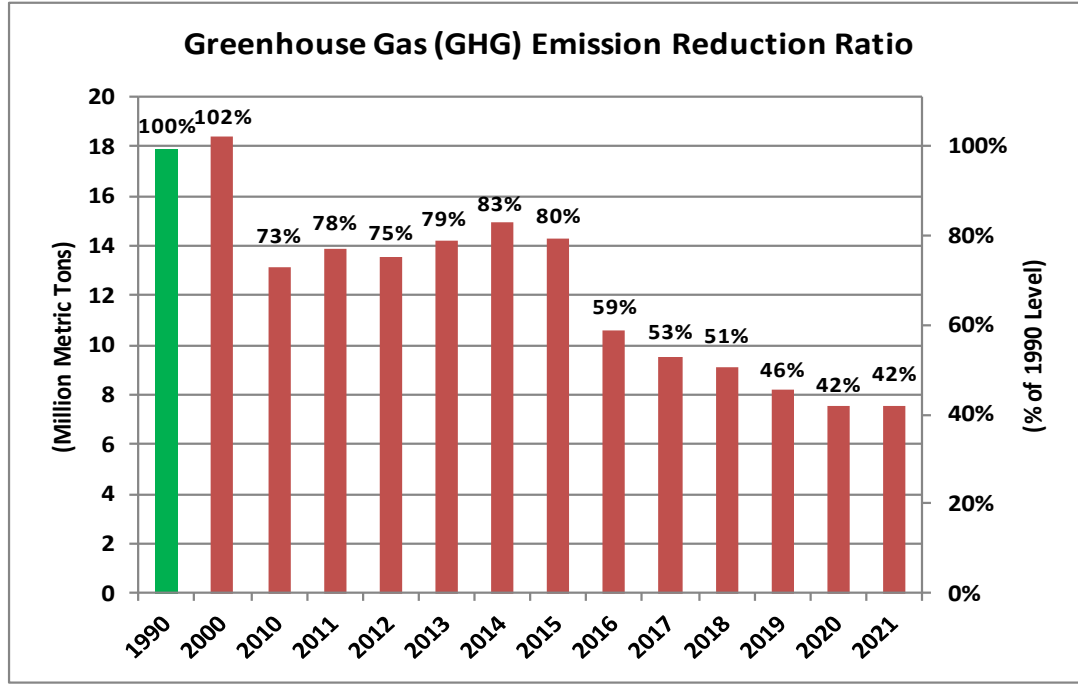
DEFINITION OF RATES METRIC: Current Year GHG Emissions / 1990 GHG Emissions (in million metric tons)

TARGET & ACCEPTABLE VARIANCE (CY 2023): 60% below = 40% of 1990 LADWP GHG emission baseline; Variance + 5%

STATUS: Within Acceptable Variance

Note: CO2 is 99.9% of total GHG emissions. Annual emissions are CO2 only for comparison with the 1990 baseline which is CO2 emissions only (not total GHG).

Historical Trend:		
CY	CO2 Emissions (Metric Tons)	% of 1990 CO2 Emissions
1990	17,925,410	100%
2000	18,373,127	102%
2010	13,165,764	73%
2011	13,900,590	78%
2012	13,519,339	75%
2013	14,174,036	79%
2014	14,911,781	83%
2015	14,312,947	80%
2016	10,566,904	59%
2017	9,554,640	53%
2018	9,077,848	51%
2019	8,230,332	46%
2020	7,528,640	42%
2021	7,527,570	42%



\* Revised 2021 CO2 emissions to include electricity purchased through the Energy Imbalance Market to serve LADWP load.

SOURCE: Internal LADWP GHG emissions inventory based on The Climate Registry voluntary reporting protocol, CARB GHG emission reports and Power Source Disclosure/Power Content Label data.

## 1. POLICY / PURPOSE

- The State of California has set goals to reduce GHG emissions to 1990 levels by 2020, 40% below 1990 by 2030, and 85% below 1990 by 2045. GHG reduction efforts from the electricity sector, including LADWP, are a critical component in meeting these statewide goals.
- California Senate Bill 100 (De Leon, 2018) set a target to supply end-use customers with 60% renewable energy by 2030, and 100% zero-carbon electricity by 2045.
- California Governor Jerry Brown signed Executive Order B-55-18 setting a goal for California to achieve carbon neutrality by 2045.
- California Assembly Bill 1279 (Muratsuchi, 2022) establishes state policy to achieve net zero GHG emissions no later than 2045 and reduce anthropogenic GHG emissions to at least 85% by 2045.

## 2. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

- No variance explanation needed.

## 3. LADWP ACHIEVEMENTS / MILESTONES

- Early divestiture of Navajo Generating Station effective July 1, 2016.
- Beginning January 1, 2016, LADWP incorporated carbon cost into the economic dispatch of its generating units, which prioritized use of zero GHG and natural gas over coal resources.
- LADWP's electricity supply in 2021 included 35.2% renewable energy based on LADWP's Power Content Label.
- LADWP's 2021 CO2 emissions are 58% below its 1990 emissions baseline.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

- No mitigation needed. GHG emissions have been significantly reduced as a result of the measures listed under #3.

# LADWP RATES METRIC – Energy Savings Variance Report (Joint)

RESPONSIBLE MANAGER: David Jacot

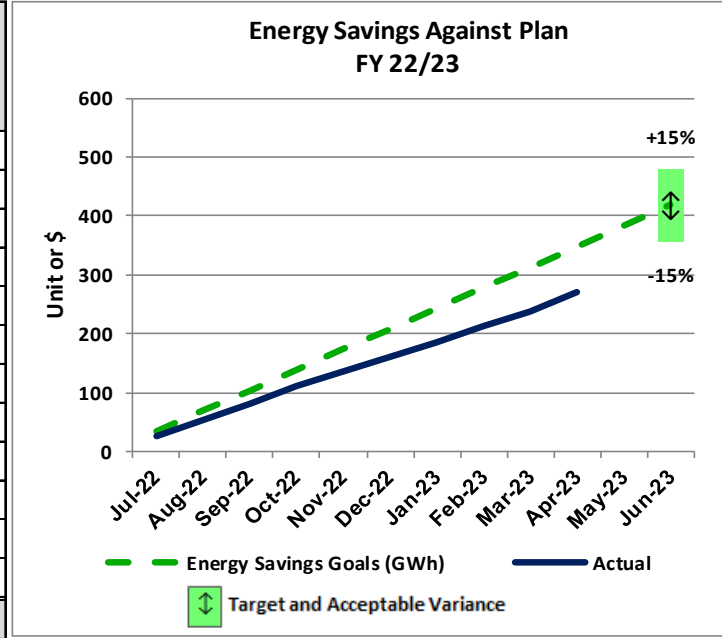
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Energy Savings Against Plan

TARGET & ACCEPTABLE VARIANCE (FY 22/23): GWh Installed Compared to the 2020 baseline/GWh for all customers. 15%

**STATUS:** Outside Acceptable Variance

FYTD as of:	Energy Savings Goals (GWh)	Actual	Variance		Re-Estimate (If Applicable)
			Unit or \$	%	
Jul-22	34.8	26.0	-9	-25.3%	
Aug-22	69.6	55.5	-14	-20.3%	
Sep-22	104.4	80.6	-24	-22.8%	
Oct-22	139.3	111.6	-28	-19.9%	
Nov-22	174.1	136.1	-38	-21.8%	
Dec-22	209.0	162.1	-47	-22.4%	
Jan-23	243.7	184.8	-59	-24.2%	
Feb-23	278.5	213.4	-65	-23.4%	
Mar-23	313.3	239.1	-74	-23.7%	
Apr-23	348.2	270.3	-78	-22.4%	
May-23	383.0				
Jun-23	417.8				
<b>Acceptable Variance</b>			<b>± 15%</b>		



SOURCE OF DATA: Efficiency Solutions KPI FY 20-21 Report

## 1. BACKGROUND / PURPOSE

Efficiency Solutions’ (ES) energy savings goals are a key performance metric related to the Energy Cost Adjustment Factor, a critical power rate component. Energy Savings are compiled monthly into a Key Performance Indicators database encompassing measures installed by participants in ES programs and initiatives. The OPA has requested this metric be reported to the Board and the OPA on a regular basis, ensuring actual savings are tracking established targets.

## 2. ACHIEVEMENTS / MILESTONES MET

The Efficiency Solutions Division achieved 338 GWh energy savings in FY 21-22, or 15% below the target despite COVID-19. Major contributors to the FY 21-22 total energy savings are the Commercial Lighting Incentive Program, Commercial Direct

Install, Custom Performance Program, Consumer Rebate Program, HVAC Optimization and LAUSD Direct Install energy efficiency programs.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

Energy efficiency program activities will increase in FY 22-23 with Home Energy Improvement Program (HEIP) having resumed field assessments and installation work in mid-September 2022; and the Comprehensive Affordable Multi-Family Retrofits (CAMR) Program officially launched on May 1, 2022.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

Utility Services Specialist positions have been filled and support for all energy

efficiency programs are in place to accelerate programs.

# LADWP RATES METRIC – BUDGET VARIANCE ENERGY EFFICIENCY (JOINT)

RESPONSIBLE MANAGER: David Jacot

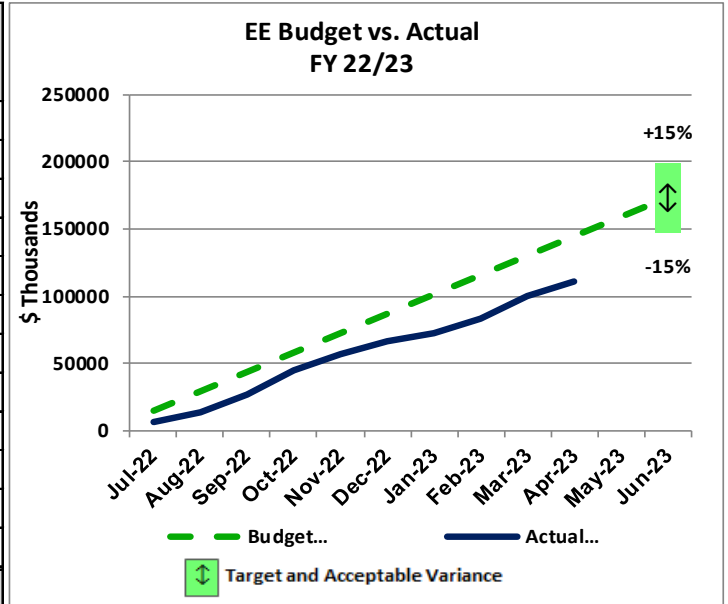
REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Budget vs. Actual for the overall Energy Efficiency Portfolio

TARGET & ACCEPTABLE VARIANCE (FY 22/23): +/- 15%

**STATUS:** Outside Acceptable Variance

FYTD as of:	Budget (\$ in K)	Actual (\$ in K)	Variance		Re-Estimate (If Applicable)
			\$ in K	%	
Jul-22	14,426	6,062	-8364	-58.0%	
Aug-22	28,851	12,968	-15883	-55.1%	
Sep-22	43,277	27,059	-16218	-37.5%	
Oct-22	57,703	44,400	-13303	-23.1%	
Nov-22	72,128	57,156	-14972	-20.8%	
Dec-22	86,554	66,189	-20365	-23.5%	
Jan-23	100,980	72,920	-28060	-27.8%	
Feb-23	115,405	83,367	-32038	-27.8%	
Mar-23	129,831	100,420	-29411	-22.7%	
Apr-23	144,257	110,457	-33800	-23.4%	
May-23	158,682				
Jun-23	173,108				
<b>Acceptable Variance</b>			<b>± 15%</b>		



SOURCE OF DATA: Efficiency Solutions KPI FY 22-23 Report

## 1. BACKGROUND / PURPOSE

Efficiency Solutions' (ES) energy savings goals are a key performance metric related to the Energy Cost Adjustment Factor, a critical power rate component. Energy Savings are compiled monthly into a Key Performance Indicator (KPI) database encompassing measures installed by participants in ES programs and initiatives. A budget is established annually, in support of energy efficiency programs, and actual spending is also compiled monthly into the KPI database, to track spending and energy savings. The OPA has requested this metric be reported to the Board and the OPA on a regular basis, ensuring actual spending meets established targets.

## 2. ACHIEVEMENTS / MILESTONES MET

Energy efficiency programs have slowly ramped up after some programs resumed in June 2021. The Home Energy Improvement Program (HEIP) resumed field assessments and installation work mid-September 2022; and the Comprehensive Affordable Multi-Family

Retrofits (CAMR) Program officially launched on May 1, 2022. Programs that continue to move forward are the Consumer Rebate Program, Commercial Lighting Incentive Program, and LAUSD Direct Install energy efficiency programs.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

Energy efficiency program activities and expenditures are expected to increase in the 4<sup>th</sup> quarter of FY 22-23.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

Energy Efficiency programs/activities will continue to ramp up and expenditures will continue to increase this FY 22-23. Utility Services Specialist positions have been filled and support for all energy efficiency programs are in place to accelerate programs.

Within Acceptable Variance   Outside Acceptable Variance   Exceeds Target   Needs Attention

# LADWP RATES METRIC – *Levelized EE Program Costs (\$/KWH) (Joint)*

RESPONSIBLE MANAGER: David Jacot

REPORTING PERIOD: April 2023

DEFINITION OF RATES METRIC: Cost per kWh over lifetime of installed energy efficiency solutions or measures.

TARGET & ACCEPTABLE VARIANCE (FY 22/23): Annual metric: Levelized Cost \$ 0.15 per kWh +/- 10%

**STATUS** Within Acceptable Variance

SOURCE OF DATA: ESP Portfolios Report 2023

## 1. BACKGROUND / PURPOSE

Efficiency Solutions’ (ES) Levelized Energy Efficiency (EE) Program costs (\$/kWh) are a key performance metric related to the Energy Cost Adjustment Factor, a key rate component. The OPA has requested this metric be reported to the Board and the OPA on a regular basis, ensuring actual levelized EE Program costs are tracking established targets.

Life of efficiency measures vary from one to thirty years. The levelized cost of LADWP’s energy efficiency program portfolio is calculated once per year (the most recent is FY 21-22) using the ESP Portfolios (ESP) tool developed by Energy Platforms, LLC and is used by all SCPPA members in reporting annual energy savings and expenditures to the California Energy Commission (CEC).

## 2. ACHIEVEMENTS / MILESTONES MET

The levelized cost of LADWP’s energy efficiency portfolio for FY 21-22 was \$0.133/kWh saved. Resource Programs that are targeted for cost effective measures for deferring infrastructure upgrades are currently at \$0.132/kWh or 96% of total funding. The equity offerings, driven by policy and satisfying external stakeholders, are at \$0.163/kWh, weighted at 4% of total program funding.

## 3. PERFORMANCE / VARIANCE ANALYSIS & YEAR END PROJECTION

LADWP’s Resource/Cost Effective Programs are below the \$0.15 per kWh target. However, the energy efficiency offerings geared to meet equity metrics are at \$0.163/kWh, rendering the energy efficiency programs portfolio at a levelized cost of \$0.133/kWh, under the \$0.15 per kWh target. In combination with Codes & Standards, the overall portfolio levelized cost of energy for the entire portfolio is \$0.055/kWh.

## 4. MITIGATION PLAN AND / OR RECOMMENDATIONS

Customer site-based Energy Efficiency programs/activities have resumed with safety protocols in place. Energy efficiency programs will continue to be offered to meet energy efficiency goals, including equity goals.













# LADWP Rates Metrics Semi-Annual Report - 8/15/23 Board Meeting

Final Audit Report

2023-07-27


Created:	2023-07-24 (Pacific Daylight Time)
By:	Joanne Ma (joanne.ma@ladwp.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAW43wnK2jYi9INcy4wOLXodsLqW9Sq9Xd

## "LADWP Rates Metrics Semi-Annual Report - 8/15/23 Board Meeting" History

-  Document created by Joanne Ma (joanne.ma@ladwp.com)  
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-  Signer ann.santilli@ladwp.com entered name at signing as Ann M. Santilli  
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-  Document e-signed by Ann M. Santilli (ann.santilli@ladwp.com)  
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-  Signer martin.adams@ladwp.com entered name at signing as Martin L Adams  
2023-07-27 - 9:38:16 AM PDT

 Document e-signed by Martin L Adams (martin.adams@ladwp.com)

Signature Date: 2023-07-27 - 9:38:18 AM PDT - Time Source: server

 Agreement completed.

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