LA DWP

Briefing Book 2022-23

Our Mission

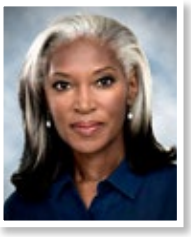
The Los Angeles Department of Water and Power exists to support the growth and vitality of the City of Los Angeles, its residents, businesses and the communities we serve, by providing safe, reliable and cost-effective water and power in a customer-focused and environmentally responsible manner.

Contents

Overview

The Los Angeles Department of Water and Power (LADWP) is the nation's largest municipal utility. We provide 8,058 megawatts (MW) of dependable electric capacity and serve an average of 447 million gallons of water per day to more than 4 million residents of Los Angeles, its businesses and visitors. For more than 120 years, LADWP has provided the city with reliable water and power service. With a workforce of more than 11,500 employees, LADWP is guided by the five-member Board of Water and Power Commissioners, appointed by the Mayor and confirmed by the City Council.

Board of Water and Power Commissioners



Cynthia McClain-Hill
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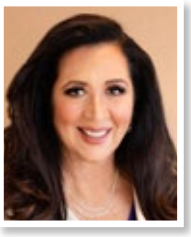

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The LADWP Briefing Book is published by the Customer Service, Communications and Corporate Strategy Division. This edition reflects data for fiscal year 2021-2022 and program updates through the end of the calendar year 2022.

Water & Power Are Essential for Life

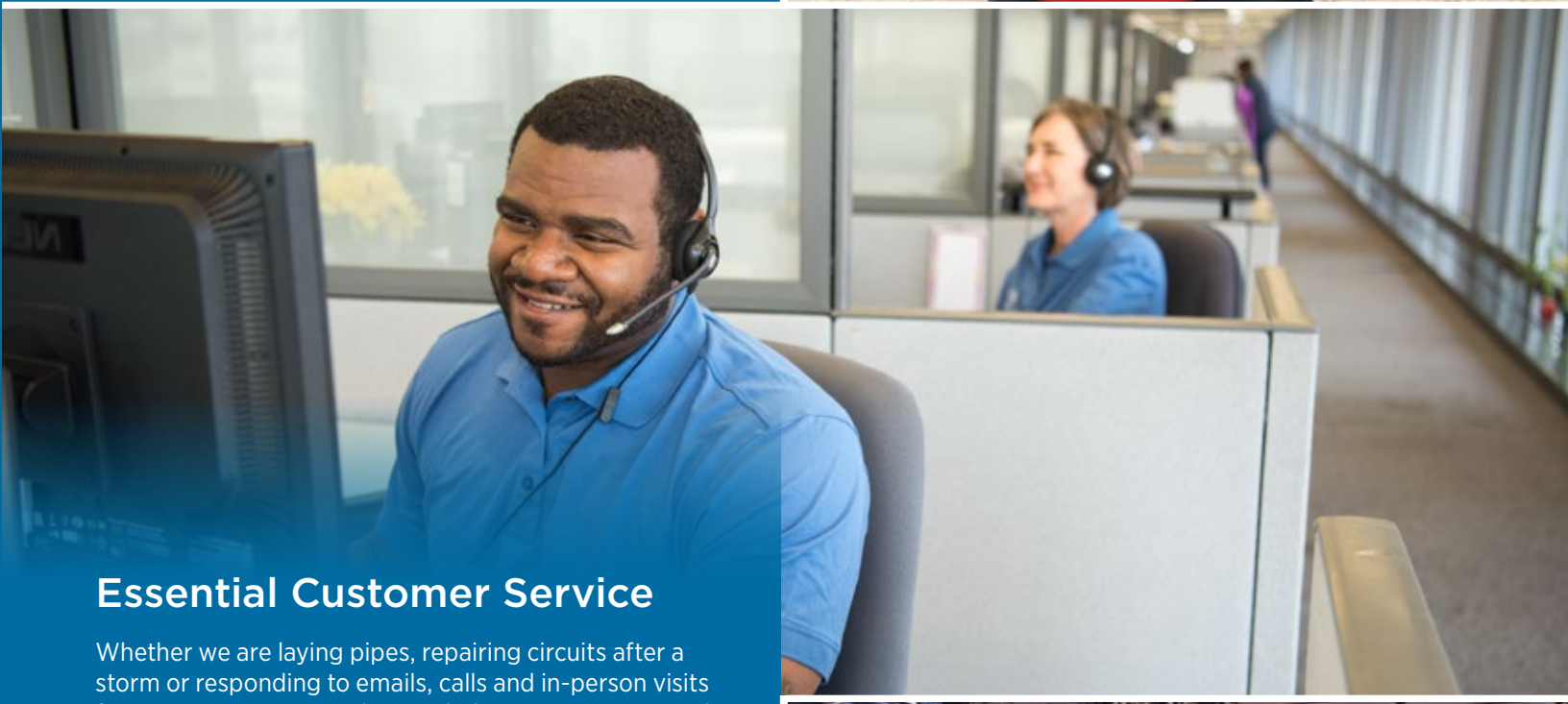
Water and power support the quality of life and vitality of our customers and our communities. At LADWP, we keep the lights on and the water flowing safely and reliably while working hard to control costs, operate efficiently, and protect customers from excessive and burdensome rate impacts. At the same time, we continue to invest in upgrading and modernizing aging infrastructure; meeting energy and water regulatory mandates; protecting and expanding our water supply to guard against climate change and persistent droughts; and staying on track to achieve 100% clean energy for Los Angeles while ensuring our future power grid is resilient and reliable.

Essential Power Work

Modernizing, upgrading and expanding distribution, transmission, substation and generation infrastructure is vital to creating an energy future that is clean, reliable and resilient as we lay the foundation for transitioning to 100% clean energy. Our future power supply will primarily come from renewable energy resources such as large solar and wind farms as well as local distributed solar on L.A. rooftops. At the same time, we are upgrading and expanding our local electrical infrastructure to meet growing energy demand as we electrify transportation, buildings, the Los Angeles International Airport, and the Port of Los Angeles.

Essential Water Work

We provide the essential high-quality water that enables our city to thrive. With a large percentage of our pipe installed at the turn of the last century, we continue to upgrade and replace water mainlines and trunk lines, large valves, pumps and motors, customer meters and other essential infrastructure. We are expanding our network of earthquake resilient pipe to ensure reliability in the most vulnerable areas. We achieved an important milestone last year as all open-air reservoirs were brought into compliance with water quality regulations. Our infrastructure projects are also necessary to expand and secure our local water supply to guard against drought. Major innovative initiatives are underway to enhance recycled water, expand stormwater capture capacity to recharge the groundwater and remediate the groundwater basins.



Essential Customer Service

Whether we are laying pipes, repairing circuits after a storm or responding to emails, calls and in-person visits from customers, we are here to help. We are committed to providing equitable access to safe and reliable water and power, and to supporting customers who are least able to afford these vital resources through a variety of financial assistance programs. We continue to launch new initiatives to help customers save water and benefit from the clean energy transition.

For commercial customers, we are streamlining business processes and procurement practices to become a better business partner, and developing a robust cloud-based, enterprise resource system to operate more efficiently. We are also instituting advanced cyber security detection to protect our vital water and power systems and customer information from external threats.

Sustainability

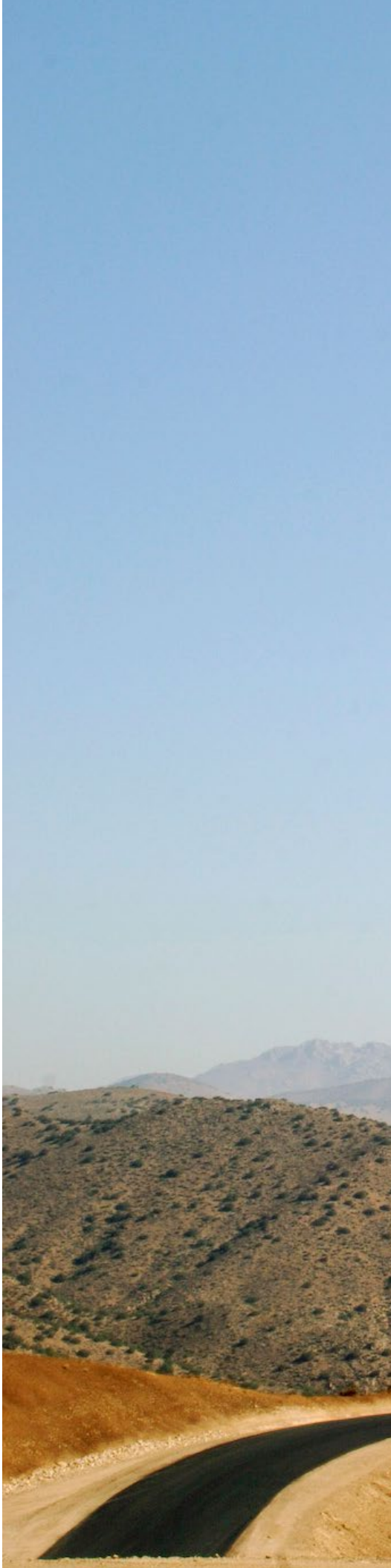
Our Carbon Reduction Progress

Reducing greenhouse gas (GHG) emissions to fight climate change continues to be a priority for LADWP as we work to meet our accelerated decarbonization targets.

In 2016, LADWP achieved the target set by California Senate Bill 32 to reduce GHG emissions to 40% below the 1990 baseline level by 2030. LADWP met and exceeded this target 14 years ahead of the deadline. By the end of 2021, L.A.'s power portfolio was 55% carbon free and our GHG emissions level was estimated to be 7.7 million metric tons (MMT)—approximately 57% below our 1990 emissions baseline of 17.9 MMT.

We reached another major milestone in 2021 with the completion of the 331 MW Red Cloud Wind Project. The major wind facility is expected to boost our renewable energy portfolio by 6%, bringing our power supply to over 60% carbon free.

Through the 2022 Strategic Long-Term Resource Plan (SLTRP), LADWP has analyzed scenarios for L.A.'s future power mix that contemplate aggressive buildouts of renewable energy resources, energy storage, demand response, and energy efficiency. These alternative pathways target reducing GHG emissions to between 80% and 90% below our 1990 baseline by 2030, achieving the state's long-range GHG emissions reduction goal 20 years early.



L.A. Ranks No. 1 Solar City in U.S.

The City of Los Angeles ranked No. 1 for solar energy capacity in the 2022 Environment America Research and Policy Center's report *Shining Cities: The Top U.S. Cities for Solar Energy*, which tracked data through December 2021.

The report designates Los Angeles a "Solar Superstar," meaning it boasts 100 or more watts of solar photovoltaic (PV) capacity installed per capita. Los Angeles is home to 550 MW (AC power) of total solar capacity, combining net energy metering, feed-in tariff, and utility-built solar. That averages 166.7 solar watts per person. Our city previously held the title from 2014 to 2016, and from 2018 to 2020.

Clean Air Community Grants

A variety of clean air and clean energy programs, ranging from an e-bike library in the Northeast San Fernando Valley to solar arrays and cool roof installations for low-income housing in Wilmington and Watts, were among nine projects that received $4.2 million in grants in 2021 through the first round of LADWP's Community Emissions Reduction Grants Program. The program seeks to reduce emissions in communities that experience disproportionate levels of pollution, including those surrounding Valley Generating Station in Sun Valley and Harbor Generating Station in Wilmington. The program will award $20 million in grants over five years using funds from CARB's Cap-and-Trade program and Low Carbon Fuel Standard (LCFS) program.

Investing in Energy Efficiency

Energy efficiency continues to be a key strategy for transitioning our power supply to 100% clean energy, providing a cost-effective way to reduce GHG emissions. Energy efficiency supports system reliability and resiliency while enabling customers to save on their electric bill.

Guiding Principles

LADWP applies the following guiding principles for launching new and redesigned energy efficiency programs:

- Promoting energy efficiency programs for all customer sectors
- Targeting hard-to-reach customers, such as low-income residents and small businesses
- Achieving tangible economic benefits for low-income customers
- Leveraging programs to support jobs for the local workforce

Through our portfolio of energy efficiency rebates, free efficiency upgrades, and other programs, LADWP customers saved nearly 339 GWh during FY 2021-22. That amount of energy savings is comparable to offsetting electricity for 60,735 homes and reducing GHG emissions by 106,377 metric tons annually, which equates to removing 25,230 gasoline-fueled cars from the road.

- Working collaboratively with partner agencies on outreach and education to reach a broad and diverse customer base
- Operating transparently and reporting results regularly
- Expanding education, accessibility, and participation to serve a diverse customer base

Energy Efficiency Goals

We achieved our target of 15% cumulative energy savings from 2010 through 2020, representing 3,437 gigawatt-hours (GWh), enough to offset the electricity needs of 615,950 homes, and avoid over 1 million metric tons of GHG emissions. LADWP is focused on reducing power use in Los Angeles by an additional 15% by fiscal year 2030-31, representing a potential cumulative savings of 3,830 GWh by 2035.

Building Electrification

Converting homes and other buildings to electricity is critical for meeting California's ambitious decarbonization goals. LADWP continues to play an active role with partner agencies and organizations to drive building electrification. To support our city's clean energy goals and provide savings for our customers, LADWP is committed to promoting zero-carbon energy new construction projects and making high-efficiency electric heating, ventilation and air conditioning (HVAC) technology more accessible and affordable to all Angelenos.

Water for L.A.

LADWP's Water System supports the vitality and sustainability of Los Angeles by providing our customers and the communities we serve with reliable, high quality and competitively priced water services in a safe and environmentally responsible manner. We are the nation's second largest municipal water utility. In fiscal year 2021-22, we supplied approximately 163 billion gallons of water annually, and an average of 447 million gallons per day (GPD), to 739,354 water service connections.

LADWP has a strong history of water resources management. As Los Angeles has grown from a population of 142,000 in 1902 to approximately 4 million residents today, we continue to make efficient water use a way of life, providing reliable, high quality resilient water supplies now and in the future.

Our Water System is committed to implementing innovative water management, and is a leader both nationally and globally by focusing on three key areas: the safety of drinking water, reliability of water infrastructure, and developing sustainable local water supplies.

Water System

Los Angeles' Water Sources

Water Facts

Approved Water Budget
(FY 2022-23)

$2 billion **total**
$700 million for operations and maintenance
$1 billion for capital projects
$300 million for purchased water

Water Use (FY 2021-22)

113 gallons Average Daily Use Per Capita

Residential Customers
(FY 2021-22)

320,001 acre-feet per year or
286 million GPD

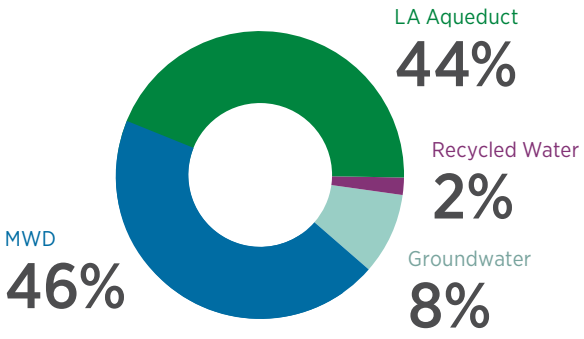
Commercial/Industrial/ Institutional Customers
(FY 2021-22)

139,740 acre-feet per year or
125 million GPD

Annual Water Supplied to Customers (FY 2021-22)

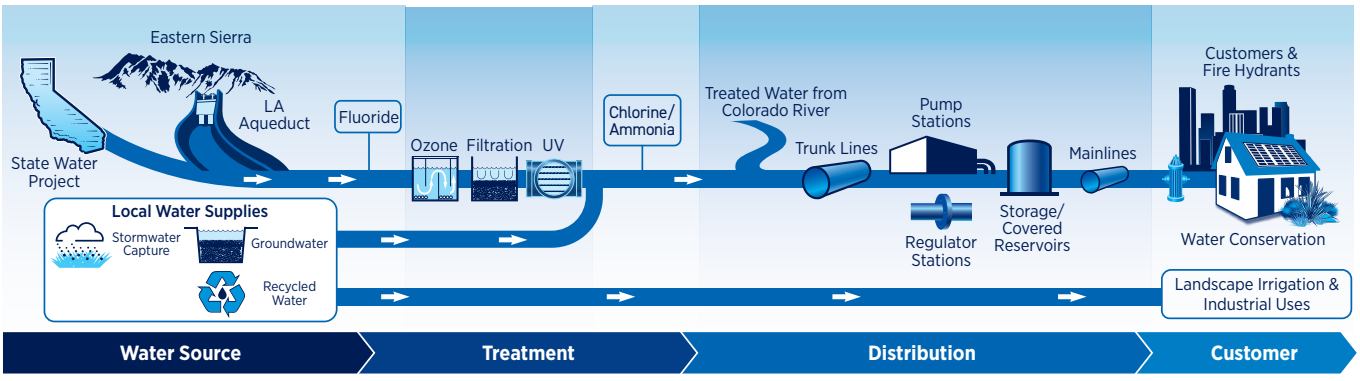
163 billion gallons
739,354 active water service connections

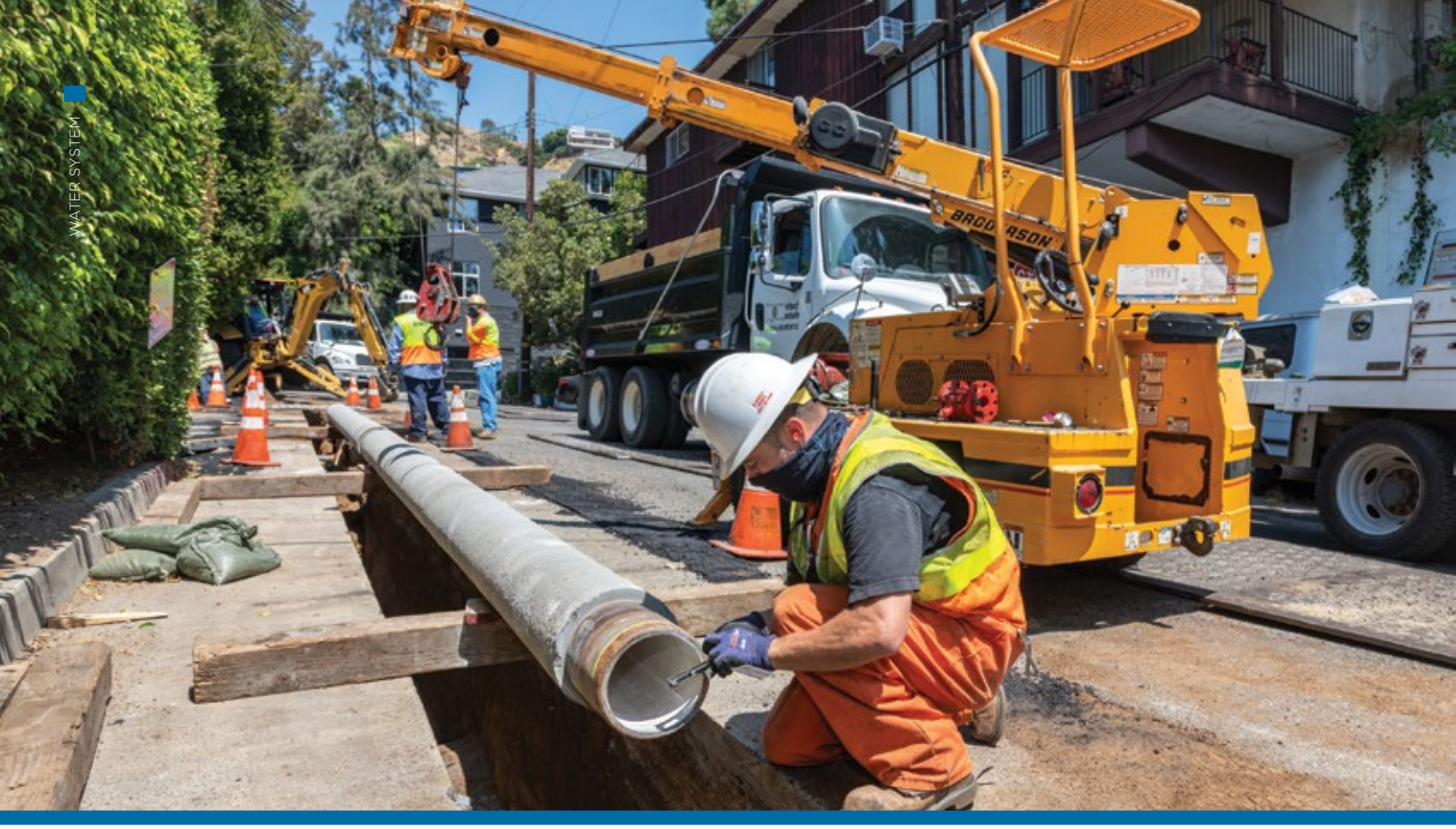
Water Supply Sources
(5-year average, FY 2018-2022)



Water System Infrastructure

114 Tanks and Reservoirs
86 Pump Stations
9 Ammoniation Stations
22 Chlorination Stations
358 Regulator and Relief Stations
111 System Pressure Zones
7,341 Distribution Mains and Trunk Lines (miles)
61,104 Fire Hydrants
323,362 Total Storage Capacity (acre-feet)
(In-city and along the L.A. Aqueduct)





Water Reliability and Resiliency

Upgrading Water Infrastructure

LADWP maintains a vast water system with about 7,340 miles of mainlines and trunk lines, which are critical to reliably delivering high quality water to Los Angeles residents and businesses. With a large percentage of our pipe installed at the turn of the last century, we are working to accelerate the replacement and upgrade of aging water mains and riveted-steel trunk lines. More than 30% of LADWP's mainlines are over 80 years old, nearing the end of their useful life.

LADWP has steadily increased the replacement of aging distribution pipes. The replacement work focuses on pipes that are prioritized as vulnerabilities within the water distribution system after a thorough assessment.

Our long-term goal is to ramp up the replacement of aging water distribution mainlines to achieve an anticipated life cycle of 150 years. For fiscal year 2022-23, our target is to replace 210,000 feet of mainline pipe along with upgrading portions of the

Water Infrastructure Upgrades—At a Glance

Infrastructure Replacements	FY 2021-22 Achievements	FY 2022-23 Goals
Distribution mainlines (pipes 20 inches or less in diameter)	37.6 miles	39.8 miles
Trunk lines (pipes 20 inches or greater in diameter)	1.8 miles	2.2 miles
Large valves	7*	5
Pressure regulator stations	8	8
Pumps/motors	17	12
Small meters	34,360	33,500

*Additional large valves were replaced as part of leak repairs, mainline and trunk line replacement programs.

LADWP maintains a high level of water service reliability. Due to our targeted efforts to replace pipe in areas with the highest leak density, our rate of pipe leaks was less than 17 leaks per 100 miles of pipeline in fiscal year 2021-22—well below the national average of 25 leaks per 100 miles of pipes.

Los Angeles Aqueduct, tanks and reservoirs, pump stations, pressure regulating stations, system valves, water meters, and other infrastructure improvements.

Seismic Resiliency

LADWP has steadily expanded our network of earthquake resilient pipe (ERP) to strengthen our water distribution infrastructure in the event of an emergency, such as an earthquake or other natural disaster. We led the nation by installing the first earthquake resistant ductile iron pipe (ERDIP) in 2013 and expanded the program in 2014. We continue to build out ERP, which is specially designed ductile iron pipe with seismic joints and welded steel pipe, at critical locations that are vulnerable to large ground movement within Los Angeles.

The Resiliency Program supports our city's sustainability goals by ensuring a safe, secure, and reliable drinking water supply and distribution system. Since the program began, we have installed over 49 miles of ERP, with more projects strategically planned in the near future.

River Supply Conduit Unit 7

The River Supply Conduit Improvement Upper Reach Unit 7 Project (RSC7) consists of installing 13,325 linear-feet of 78-inch diameter welded steel pipeline primarily through tunneling methods. Located in the Burbank area, the main tunnel begins at Johnny Carson Park South, south of the 134 Freeway in Burbank, and continues northwest under the Whitnall Highway to join with RSC Unit 6 near Biloxi Avenue and West Burbank Boulevard. RSC7 is a key project that will help ensure future water supply reliability. This new trunk line replaces part of the existing RSC, which was installed in the 1940s. The RSC7 project is expected to be completed in 2023.

Learn more: LADWP.com/RSC

Foothill Trunk Line Unit 3

Among the current ERP projects is the replacement of Foothill Trunk Line Unit 3, a major water artery that crosses the Sylmar Fault in the North San Fernando Valley. The original 1930s-era pipe, which ranges in diameter from 24 to 36 inches, will be replaced with nearly three miles of 54-inch diameter ERP trunk line.

The increased size will improve water quality and flow capacity as well as water system flexibility and reliability. To minimize impacts to the community, a new 12-inch diameter ERP distribution water mainline will be installed alongside the trunk line. The mainline will separate the water serving the local community from the trunk line. The construction includes 13,000 feet of open trenching and 3,430 feet of tunneling in six work areas to minimize impact to community and allow through traffic. The LADWP portion of open trench construction work was completed by the end of 2022. The tunneling sections are in the design phase with construction anticipated to begin in 2024.

Learn more: LADWP.com/Foothill

Century Trunk Line Unit 1

The Century Trunk Line Unit 1 Project involves replacing approximately 8,300 feet of existing 36-inch welded steel pipe, originally installed in 1937 on Century Boulevard and Sepulveda Boulevard in the vicinity of the Los Angeles International Airport. Operating past its useful service life, the old pipe is being replaced with 11,000 feet of 24-, 36- and 48-inch diameter ERP to increase resiliency during earthquakes. Construction is expected to be completed in 2023.

Learn more: LADWP.com/CenturyTrunkLine

Ensuring a Sustainable Water Supply

LADWP is committed to providing a water supply that is resilient, reliable, sustainable, high quality and cost effective as we confront extremes in weather conditions and address other challenges in managing our city's water supply.

From the Sierra Nevada and the Colorado River to the ground beneath our feet in Los Angeles, our city's water comes from a variety of diverse sources: the Eastern Sierra and Owens Valley via the Los Angeles Aqueduct; the Sacramento-San Joaquin Delta via the State Water Project (SWP); the Colorado River via the Colorado River Aqueduct; and local water supplies including groundwater and recycled water. In the past 15 years we have seen significant swings in hydrological conditions, affecting our allotted supply from the SWP, purchased from the Metropolitan Water District of Southern California (MWD). We also leave about half of the water that was historically exported to Los Angeles from the Eastern Sierra in the Owens Valley and Mono Basin to protect and sustain the environment. To ensure a sustainable water supply, we continue diversifying and expanding our local water resources through increasing the use of recycled water, improving the capacity for stormwater capture, and cleaning up contamination of the San Fernando groundwater basin. We also rely upon our customers to adopt water efficient measures and continue their strong water conservation efforts.

Learn more: LADWP.com/WaterStrong

Water Conservation

When it comes to saving water, LADWP customers are heroes. Angelenos have long embraced water-saving ethics, and water conservation is at the core of multiple strategies to ensure a sustainable water supply. Water use has dropped by over 30% in the past 15 years as our customers have diligently maintained their water-efficient habits.

LADWP is one of the few water agencies across the state to mandate water use restrictions continually since the early 1990s. Outdoor watering was limited to three days a week under Phase 2 of the City's Water Conservation Plan Ordinance since 2009 along with other permanently prohibited uses of water. Facing three consecutive dry years, limited water supplies imported from the Sierra Nevada Mountains, and lack of access to regional MWD storage, the ordinance was elevated to Phase 3. Under Phase 3, outdoor watering was reduced from three days to two days per week effective June 1, 2022.

Since then, Angelenos have saved as much as 11% in the summer of 2022 when compared to 2020 and 2021. In fact, the months of June, July, August, and September 2022 saw the lowest demand on record for those months.

With the decision to implement Phase 3, LADWP has asked customers to find ways to cut back their water use further to meet a monthly volumetric limit in compliance with MWD's emergency water conservation program. Through December 2022, our customers' 12-month rolling average water use was 108 gallons per day despite the lower level of precipitation. Our new goal is to further reduce water use to 105 gallons per person per day by July 1, 2023.

LADWP encourages conservation and water use efficiency through our tiered rate structure, which incentivizes lower water use. We educate customers about water conservation through various outreach and educational programs, and offer generous incentives for water-saving measures and devices, such as turf replacement and high-efficiency clothes washers. In addition, LADWP's Water Loss Task Force continues to develop and implement strategies to detect and reduce already low water leakages in our distribution system.

During the summer of 2022, Angelenos saved nearly 6 billion gallons of water compared to 2021.

L.A. Has Limited Access to Colorado River Water

The California Department of Water Resources reduced the SWP allocation to MWD member agencies from 15% to 5% in 2021 and the first half of 2022. When SWP allocations are reduced and MWD's SWP storage is depleted, the 4 million people in Los Angeles, our businesses and visitors are significantly impacted. As MWD's regional water distribution system is designed, many LADWP service areas have limited access to water from the Colorado River and MWD storage.

LADWP has instituted major operational changes to enable more parts of Los Angeles to receive water from connections with the Colorado River and Diamond Valley Lake. We continue to work with MWD to improve equitable access to the regional water supply and storage facilities to benefit all MWD member agencies.

30 %	30+	52 million	3.3 million+
Less per capita water use in the last 15 years	Years of mandatory water conservation ordinances	Square feet of turf replaced	High-efficiency toilets, washing machines, showerheads and faucets rebated/ distributed since 2015

Conservation Achievements

Phase 3: Two-Days-A-Week Watering

Phase 3 of the Water Conservation Plan Ordinance reduces the number of days for outdoor watering from three days to two days per week, and is now in effect for all customers. Phase 3 incorporates all of the existing Phase 2 prohibited uses, which have been in effect throughout the city since 2009. Outdoor watering with sprinklers is limited to eight minutes per station on permitted watering days. Watering with sprinklers using water-conserving nozzles is permitted for up to 15 minutes, two times per day on designated watering days. All watering is prohibited between the hours of 9 a.m. and 4 p.m.

Customers with street addresses ending in odd numbers may water on Mondays and Fridays, and customers with even-numbered street addresses may water on Thursdays and Sundays, before 9 a.m. or after 4 p.m. Hand watering is allowed every day during those hours if the hose is equipped with a self-closing water shut-off device. Drip irrigation is also allowed during those hours on any day for watering food sources, such as a community vegetable garden.

Water Conservation Response Unit

The Water Conservation Response Unit (WCRU) is patrolling neighborhoods to enforce the ordinance and educate people about the restrictions. The team also helps customers identify ways to reduce their water use. The team members issue warnings first, but fines can be imposed if violations are not addressed. The fines escalate for failing to address the issue and for unreasonable water use. To help customers reduce their water use, LADWP has boosted the dollars provided for many water-saving rebates and programs.

From June through September 2022, Angelenos increased their awareness of water waste, reporting over 9,700 possible violations of the ordinance. Most violations are resolved through educating customers. Less than 400 citations were issued.

Learn more: LADWP.com/WateringDays

Recycled Water

Operation NEXT

Operation NEXT is an innovative water supply initiative being developed by LADWP in partnership with LA Sanitation and Environment (LASAN) that aims to improve the overall water supply resiliency and reliability for Los Angeles. The goal of Operation NEXT is to maximize purified recycled water from the Hyperion Water Reclamation Plant in Playa del Rey, using advanced treatment processes, to create a new sustainable water resource that will diversify the supply for L.A. and the region.

Through a process known as indirect potable reuse, purified recycled water will be used to replenish the groundwater basin through a new water conveyance system developed by LADWP. At the same time, we are working with regulators to allow integrating purified recycled water directly into the drinking water system. This process, known as direct potable reuse, would further expand the use of purified recycled water from Hyperion and other City water reclamation plants as a supplemental water source.

Operation NEXT is a collaboration with regional partners, including the Water Replenishment District of Southern California (WRD), MWD, and the West Basin Municipal Water District (WBMWD) that will strengthen our region's long-term water resilience and sustainability.

Operation NEXT Master Plan

LADWP is currently developing a Master Plan to independently evaluate the Operation NEXT planning efforts to date as well as the long-term planning strategy to ensure the program's success. This includes a robust stakeholder communication and engagement process that will recommend strategies on program alternatives and potential partnerships. Throughout this process, we will work with regional partner agencies, community groups, elected officials, environmental leaders, and Neighborhood Councils, among other groups, to foster a high level of collaboration to support Operation NEXT. The Master Plan kicked off in January 2022 and will continue through early 2024, with support and feedback from community stakeholders and technical advisors.

Learn more: LADWP.com/OperationNext

Recycled Water for Residents

To help save drinking water, LADWP reopened three recycled water fill stations where customers could fill up to 300 gallons of recycled water for irrigation during every visit. From late July through December 2022, the stations garnered over 1,000 visits from customers who filled jugs and buckets with more than 141,000 gallons of recycled water. The program offset precious drinking water and helped make recycled water more accessible to customers.

Stormwater Capture

Expanding our capacity for capturing stormwater runoff is a key strategy to ensure our city remains water strong. Capturing and managing stormwater is a reliable and sustainable way to replenish local groundwater aquifers while reducing urban flooding. Stormwater capture also improves the quality of water that flows downstream to rivers, lakes, and the ocean.

With over 70 new projects forecasted over the next 15 years, LADWP and its partners, such as the Los Angeles Department of Public Works and Los Angeles County Flood Control District (LACFCD), will double the city's stormwater capture capacity. Many of these projects will happen at our neighborhood parks, and LADWP will be upgrading park amenities along the way.

Our stormwater capture goal is to reach 48.9 billion gallons (150,000 acre-feet) of annual stormwater capture capacity by 2035. For reference, an acre-foot of water is roughly equivalent to one foot of water covering a football field.

Tujunga Spreading Grounds Enhancement Project

In June 2022, LADWP, Los Angeles City leaders and our partners cut the ribbon to mark the completion of the five-year Tujunga Spreading Grounds Enhancement Project and opened a new community recreation area onsite to the public. Working with LACFCD, the project has significantly expanded the stormwater capture and groundwater replenishment capacity at the 150-acre Tujunga Spreading Grounds. The work involved reconfiguring and deepening 20 existing stormwater capture spreading basins of varying sizes into nine deeper basins. Overall, the project is expected to double the annual groundwater recharge capacity of the San Fernando Groundwater Basin to 16,000 acre-feet on average, which has the potential to provide enough water to 64,000 households on an annual basis.

In addition to expanding the groundwater recharge capacity, the overall storage capacity increased nearly eight-fold from 100 to 790 acre-feet. With the installation of two new high flow intakes, LADWP was able to increase water flow rate into the facility from 250 to 450 cubic feet per second. These improvements have enhanced the Tujunga Spreading Grounds' effectiveness in capturing valuable stormwater runoff.

The renovated and expanded Tujunga Spreading Grounds also features publicly accessible open space with many community benefits, such as walking paths, an outdoor classroom, educational signage, sitting areas, and permeable pavement in the parking area.

The project was funded by LADWP and LACFCD with support from State of California Proposition 84 and Proposition 1 grants. In 2019, it received awards from the Western Council of Construction Consumers and the American Academy of Environmental Engineers and Scientists.

Learn more: LADWP.com/tsg

San Fernando Regional Park Infiltration Project

Now under construction, the San Fernando Regional Park Infiltration Project, located in the City of San Fernando, will collect stormwater runoff from a 942-acre drainage area, recharge the San Fernando

Groundwater Basin with approximately 145 million gallons (446 acre-feet) of stormwater annually, and renovate existing park amenities. LADWP partnered with the City of San Fernando beginning in 2018 and expects to complete construction in June 2023. As of 2022, the City of San Fernando project had been awarded funding under both the Safe Clean Water Program, State of California Proposition 1 Integrated Regional Water Management Program, and Measure R.

Pacoima Spreading Grounds Improvement Project

A three-year project to expand the capacity of stormwater capture of the 169-acre Pacoima Spreading Grounds is underway in the northeast San Fernando Valley. Runoff and rainwater percolating through these spreading grounds recharge the San Fernando Groundwater Basin with an average of 1.69 billion gallons (5,200 acre-feet) per year. However, there has been limited storage capacity and percolation rates for stormwater runoff. The Pacoima Spreading Grounds Improvement Project will more than double the capacity of the spreading grounds, enhance the percolation rate, and provide community benefits, such as a bike path.

The project entails deepening and consolidating the spreading basins, removing underlying clay layers, improving the intake canal, and constructing steel picket fencing. When completed in July 2024, the project will increase the stormwater capture capacity to an estimated 3.42 billion gallons (10,500 acre-feet) on average per year.

Stormwater Capture at City Parks

LADWP continues to develop stormwater capture facilities at nine City parks in the East San Fernando Valley in partnership with the Los Angeles City Departments of Public Works and Recreation and Parks. The Stormwater Capture Parks Program is anticipated to create up to 978 million gallons (3,000 acre-feet) of stormwater capture capacity at the parks.

Participating parks include David M. Gonzales Recreation Center, Fernangeles Park, Strathern Park North, Whitsett Fields Park North, Valley Plaza Park North, Valley Plaza Park South, Alexandria Park, North Hollywood Park and Valley Village Park. The projects will use a variety of measures, including catch basins, bioswales, pre-treatment devices, pumps, storm drains, underground infiltration galleries, and other best management practices.

The program includes extensive public outreach to keep the community informed of plans and progress until completion, expected in 2030. The project will be constructed in three phases to limit community and environmental impacts, with the first phase beginning in late 2023. In October 2022, LADWP was awarded $8.4 million from Round 3 of the Safe Clean Water Program for the Whitsett Fields Park North Stormwater Capture Project. To date, the Stormwater Capture Parks Program has been awarded $79.8 million in total grant funding.

Learn more: LADWP.com/parks

Groundwater Cleanup

The San Fernando Groundwater Basin (SFB) is a critical local water resource but has been limited due to historical contamination affecting nearly 50% of LADWP's groundwater wells. LADWP continues expanding remediation systems to remove contamination from the SFB. During dry periods, when purchased imported water is less available, the SFB has provided an average of 12% of our water supply, and up to 23% during extended dry periods.

Resolving contamination problems and restoring the beneficial use of the SFB are essential to protecting public health and the environment, and to recovering LADWP's historical groundwater supply as a valuable local water resource.

Based on an extensive groundwater remedial investigation and improvement study, LADWP has installed 26 monitoring wells. These new wells, along with a network of 70 existing wells, provide data to evaluate groundwater quality in the northern portion of the SFB, which includes the city's most productive wellfields. LADWP's current groundwater remediation efforts are focused on three major response actions: The North Hollywood West, North Hollywood Central, and Tujunga Wellfields. Additional groundwater evaluations in the Southern San Fernando Basin Wellfields are also underway.

Groundwater Cleanup Agreements

To restore the SFB as a beneficial and long-term resource for drinking water, and mitigate the cost for our customers, we are working with the U.S. Environmental Protection Agency (EPA) to hold more than 20 responsible parties in the area accountable for their historic production of hazardous materials and the resulting SFB groundwater contamination.

North Hollywood West Response Action

The North Hollywood West Response Action is an important part of LADWP's Interim Remedial Action for the North Hollywood West Wellfield. The project involves constructing an Advanced Oxidation Process (AOP) treatment facility for the remediation of 1,4-dioxane (historically used as a solvent in industrial and laboratory applications, among other purposes) encountered in groundwater in the North Hollywood West Wellfield. The project is expected to operate year-round and will be capable of treating 3.86 billion gallons of water per year. The project broke ground in 2018 and is expected to be operational in 2023.

North Hollywood Central and Tujunga West Response Action

Additional response actions are underway to provide the necessary treatment improvements to remove contamination in groundwater at the Rinaldi-Toluca Wellfield and the Tujunga Wellfield. Studies have identified the presence and/or threat of 1,4-dioxane and volatile organic compounds contamination at both locations. The treatment equipment includes the use of AOP and liquid phase granular activated carbon vessels for groundwater remediation. Once completed, the treatment facilities will allow for the full operation of the wellfields. Both projects are expected to be operational in 2023.

Grants and Funding

LADWP proactively seeks local, state, and federal funding to offset the costs of funding these programs.

Groundwater Remediation. LADWP has been awarded a total of $309.9 million in grants from Proposition 1, the Water Quality, Supply, and Infrastructure Improvement Act, for our San Fernando Groundwater Basin Remediation Program. Proposition 1 was approved by California voters in 2014 to help fund water quality improvement projects, including drinking water protection, and help meet the long-term water needs of California.

Stormwater Capture. To date, LADWP has been awarded $75 million from the Safe Clean Water Program for the Stormwater Capture Parks Program. Also known as Measure W, the Safe Clean Water Program was approved by Los Angeles County voters in 2018 to provide a sustainable source of funding for stormwater capture projects. LADWP has also been awarded $10 million in Proposition 1 grants for the Tujunga Spreading Grounds Enhancement Project and the Stormwater Capture Parks Program.

Water Recycling. LADWP has received more than $10 million in Proposition 1 grants for recycled water projects, including the Griffith Park South Water Recycling Project and the Los Angeles Groundwater Replenishment Ozone Demonstration Project.

LADWP actively pursues grant funding opportunities arising from the Infrastructure Investment and Jobs Act (IIJA), the Inflation Reduction Act (IRA), and other federal and state funding opportunities to combat the drought and diversify our water supply portfolio moving forward. Since the authorization of IIJA funds, LADWP has submitted two applications for grant funding, as well as preparing for additional funding opportunities as they are appropriated through the IRA in coming months.

Eastern Sierra

One critical resource is the Los Angeles Aqueduct, which runs 233 miles north of Los Angeles carrying fresh runoff from the Eastern Sierra to L.A. Completed in 1913, the L.A. Aqueduct was the largest water infrastructure project in the world at the time. Now, more than a century later, the L.A. Aqueduct is still a foundational purveyor of water for Los Angeles. Today, LADWP maintains stewardship of nearly 315,000 acres of land throughout Inyo and Mono counties.

Learn more: LADWPEasternSierra.com

A Changing Supply

Over the last 30 years, water delivered to Los Angeles via the L.A. Aqueduct has been steadily reduced. In the past five years, the L.A. Aqueduct has delivered approximately 74.9 billion gallons (230,000 acre-feet) of water per year from the Owens Valley and Mono Basin. That amount ranges from 10% to 50% of the city's water supply depending on snowpack levels. This includes up to 521,362 million gallons (16,000 acre-feet) from the Mono Basin annually, and fluctuates to meet the requirements for Mono Lake's water level.

Aqueduct Operations

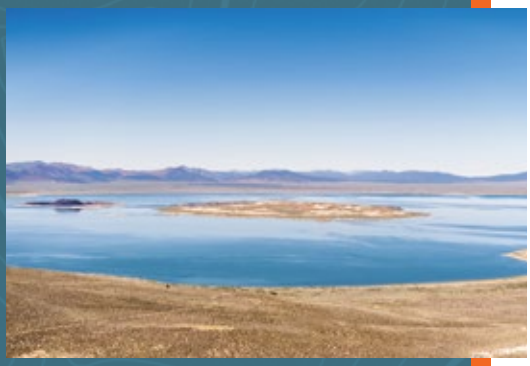
LADWP operates several key facilities involved in delivering water and power safely and reliably to Los Angeles. The Water System maintains a number of facilities in the Eastern Sierra, including the First and Second Los Angeles Aqueducts, nine reservoirs, and hundreds of miles of canals and ditches.

We employ nearly 350 people in the Eastern Sierra area and actively recruit new employees from the region. In addition to our water and power operations, construction, and maintenance forces, we administer leases and other land-use activities ranging from ranching and grazing to campgrounds and golf courses.

Stewardship

For decades, LADWP has been working hand-in-hand with state and federal agencies and local voices to protect the environment. We remain committed to maintaining, protecting, and enhancing the natural resources of Owens Valley, Long Valley, and Mono Basin. As a consequence of water exports, a series of mitigation projects and management activities were developed to mitigate past impacts and help maintain and manage the city's water exports from the Eastern Sierra into the future.

Sustaining the Owens Valley and Mono Basin Environments



Owens Lake

Since the early 2000s, LADWP has implemented and maintained the Owens Lake Dust Mitigation Program, the largest dust control project in the nation. LADWP has invested more than $2.5 billion and reduced dust emissions from Owens Lake by 99.4%. Using a series of federally approved dust control measures, the program limits dust emissions, maintains wildlife habitats and protects cultural resources while promoting efficient water use across 48.6 square miles of the exposed Owens Lake playa. The establishment of bird and waterfowl habitats have been recognized as a Western Hemisphere Shorebird Reserve Network site of international importance.

Lower Owens River

We completed the largest river restoration project of its kind in the Western U.S. by rewatering 62 miles of the Lower Owens River and enhancing approximately 2,000 acres of wetland and aquatic habitat for waterfowl. Since the release of water in 2007, the Lower Owens River has evolved into a thriving ecosystem and a recreational area for hiking, kayaking, and other activities.

Laws Revegetation

In 2022, we planted 24,000 native plants near Laws, a small town north of Bishop, CA, to provide groundcover and dust control, among other benefits. Through the Laws Revegetation Project, LADWP has planted over 233,000 native shrubs covering 253 acres of land.

Blackrock Waterfowl Area

The successful five-year Interim Management and Monitoring Plan for the Blackrock Waterfowl Management Area in partnership with Inyo County has already enhanced habitat for Lower Owens River Project waterbirds, including shorebirds, waterfowl, and wading birds, and provided improved habitat for local and migratory bird populations.

LADWP assesses field conditions to enhance the Bi-state sage-grouse habitat.

Owens Valley

In the Owens Valley, we have implemented 64 mitigation projects resulting in the restoration, re-greening, and/or revegetation of land owned by the City of Los Angeles and managed by LADWP. These projects have fostered the creation and maintenance of wetland ecosystems, invasive vegetation eradication, and additional environmental benefits to the area. LADWP continues to fulfill more than 100 other environmental tasks related to protecting and sustaining the environment.

Sage-Grouse Habitat

In June 2022, LADWP joined with state and federal agencies, Mono County, and other interested groups in the Second Annual Bi-state sage-grouse summer meeting to assess field conditions and operations. This work is being implemented under the 2020 Long Valley Adaptive Management Plan, collaboratively developed with LADWP and the U.S. Fish and Wildlife Service (USFWS) with input from other regulatory agencies and sage-grouse experts. It serves as a living document to guide land management decisions that ultimately preserve and enhance the Bi-state sage-grouse population. LADWP Watershed Resources staff is conducting vegetation monitoring in Long Valley to document habitat conditions.

Mono Basin Restoration

In 1994, the California State Water Resources Control Board issued a decision that reduced exports from Mono Basin to restore the Mono Lake ecosystem and its surrounding streams.

This decision, which included a target long-term average water surface elevation of 6,391 feet at Mono Lake, is considered one of the greatest environmental success stories in the history of the State of California.

For nearly 40 years, LADWP has been working with local partners in the Eastern Sierra to restore and preserve the natural beauty of the Mono Basin. LADWP has invested in dozens of restoration projects that restored riparian vegetation around Mono Lake and its tributaries, as well as the rehabilitation of streams throughout the watersheds. In addition to water and air quality benefits from these projects, plant and animal biodiversity has increased, fish and wildlife populations have grown, and there are more acres of wetlands in the watershed than in decades past. Recent efforts include the construction of a new spillway gate designed to increase control of flows from Grant Lake Reservoir through Rush Creek and into Mono Lake. The structure will be used during specific wet year conditions to deliver higher flows.

Community Investments

As a member of the Eastern Sierra community, we are dedicated to giving back to the region through economic development, community investments, and focusing on environmental stewardship. We engage directly with our partners and raise awareness of our investments in the community through public outreach. Over the last several decades, LADWP has partnered with almost 100 organizations annually in Inyo and Mono counties by supporting their events, community programs, educational activities, and workforce development opportunities.

FY 2021-22 Achievements in Water Quality

- Commissioned the Los Angeles Reservoir Ultraviolet Disinfection Plant.
- Achieved full compliance with EPA regulations to protect drinking water in reservoirs.
- Carried out a comprehensive testing program throughout the city's water system and its water sources, including annual average of over 34,000 samples and over 240,000 water quality test parameters.
- Maintained continuous, daily operation of field testing, sampling, and lab analysis throughout the pandemic.
- Developed new water quality technology and utilized online water quality monitors for the L.A. Convention Center during Super Bowl 2022 and Summit of Americas events.
- Supported the successful completion of the Mayor's goal to refurbish or install over 200 hydration stations throughout the city by creating, funding, and implementing the Hydration Station Initiative Program.

Learn more: LADWP.com/WaterQuality

Water Quality

Ensuring Safe, High Quality Water

LADWP is committed to providing clean, safe, and cost-effective drinking water that meets all state and federal standards. The water supplied to our customers' taps has been rigorously treated, tested, and monitored by highly trained, vigilant staff dedicated to providing the highest water quality possible.

20-Year Milestone

The Los Angeles Reservoir Ultraviolet Disinfection Plant (LARUVDP), a state-of-the-art $123.8 million water-treatment facility, was completed in January 2022. The project brought LADWP into full compliance with stringent water quality rules, including the EPA's Surface Water Treatment Rules (SWTR) and Disinfection Byproducts regulations. Under the regulations, open-air reservoirs had to be either covered, removed from service, or redesigned to treat water before it enters the distribution system. To achieve compliance with the SWTR and disinfection byproducts regulations, we installed floating covers or replaced open reservoirs with tanks, bypass trunk lines and other infrastructure.

In combination with LADWP's first Ultraviolet Disinfection Facility, completed in 2014, and the deployment of nearly 96 million shade balls in 2015 on the surface of the Los Angeles Reservoir, the LARUVDP further improves water quality and represents an important investment in the reliability and safety of L.A.'s drinking water infrastructure.

Headworks Reservoir Complex

The Headworks Reservoir Complex is a major water quality infrastructure project to provide storage that replaces the original open-air reservoirs in compliance with the SWTR. Through the project, Ivanhoe and Silver Lake reservoirs were replaced with the two seismically resilient, buried tanks. These are two of the largest underground water storage tanks in the Western U.S. with a combined storage capacity of 110 million gallons.

Headworks Reservoir East and Headworks Reservoir West became operational in 2014 and in August 2022, respectively. Remaining work is underway to enhance the site with public benefits such as landscaping and open space, and develop other facilities, including a recycled water demonstration project and a water quality laboratory.

Expanding Hydration Stations

LADWP's Hydration Station Initiative Program (HSIP) seeks to promote access to safe, high-quality drinking water and benefit the environment by decreasing reliance on single-use plastic water bottles. The program reached an early milestone in August 2022 with the installation and refurbishment of 200 hydration stations at locations throughout the city in public places with over half of them located in disadvantaged communities. HSIP is a partnership among LADWP, multiple city agencies and other organizations. Hydration stations are planned for additional locations as the city prepares for the 2028 Olympics.

Corrosion Control and Lead and Copper Rule

LADWP has been and continues to follow the EPA Lead and Copper Rule (LCR) sampling program since 1991. The EPA is revising the LCR to address lead levels in drinking water found in residential plumbing. LADWP conducted an inventory of the service lines in our distribution system and found no lead. We are developing a service line inventory system for customers and providing information to help mitigate discovery of any lead service lines connected to their property.

The new LCR revisions require testing drinking water at primary schools and licensed childcare facilities in our service area over a five-year period. We have identified approximately 2,600 sites that will need to be tested annually, beginning in 2025. The sampling at these facilities will be in addition to sampling at 100 residential services already underway. LADWP is investigating several alternatives to address this new requirement.

99th Street Sand Filtration

The 99th Street Wells Filtration Plant Project is designed to improve water quality in South Los Angeles. It includes construction of an iron, manganese, and sand filtration facility, a chloramination station, and the rehabilitation of four production wells. This treatment facility will reduce the levels of iron and manganese to comply with regulations and improve the aesthetics of the water when completed by January 2026.

Power for L.A.

LADWP is the nation's largest municipal power utility with a net maximum plant capacity of 10,664 megawatts (MW) and net dependable capacity of 8,058 MW as of August 31, 2022. In fiscal year 2021-22, we supplied more than 21,400 gigawatt-hours (GWh) of power for more than 1.6 million electric service customers, including 5,424 in the Owens Valley. We maintain a diverse and vertically integrated power generation, transmission and distribution system that spans five Western states, and deliver reliable, cost-efficient power to more than 4 million people in Los Angeles.

LOS ANGELES' POWER GENERATION AND TRANSMISSION

If stretched end to end, LADWP's 15,000 miles of power lines and cable are longer than the distance from Los Angeles to Australia and back.

Power Facts

Approved Power Budget

(FY 2022-23)

$4.7 billion **total**

$1.5 billion operations and maintenance

$1.7 billion capital projects

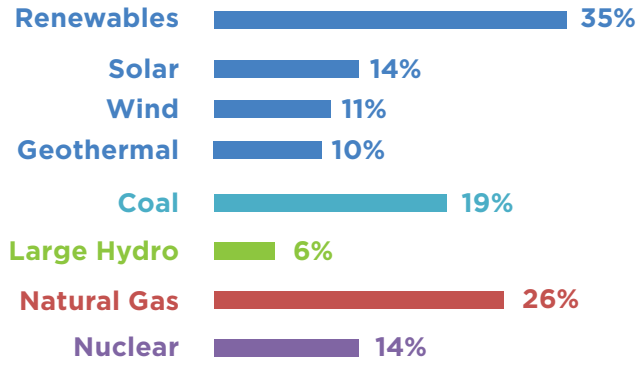
$1.5 billion fuel and purchased power

Electric Capacity

8,058 MW Net dependable generation capacity from a diverse mix of energy sources

Power Resources

(Calendar Year 2021)



Power Use (FY 2021-22)

The average electricity consumption per service connection was **438** kilowatt-hours (kWh) per month. The median usage for residential customers was about **320** kWh per month. Business, industry, and government agencies consumed about 59% of the electricity in Los Angeles, while residents make up about 90% of total customers.

Peak Energy Demand

6,502 MW The record instantaneous peak demand is reached on August 31, 2017.

Power Infrastructure

The Power System is responsible for inspecting, maintaining or replacing, and operating the following:

Generation

5 thermal plants

14 small hydroelectric plants

1 large hydroelectric pumped storage plant

1 wind plant

2 solar photovoltaic plants

Energy Storage

1.6 MW of city-owned, behind-the-meter energy storage

21.5 MW of utility-scale battery energy storage

1,265 MW of pumped hydro storage

Transmission

4,040 miles of overhead transmission circuits (AC and DC) spanning five Western states

135 miles of underground transmission circuits

Distribution

7,265 miles of overhead distribution lines

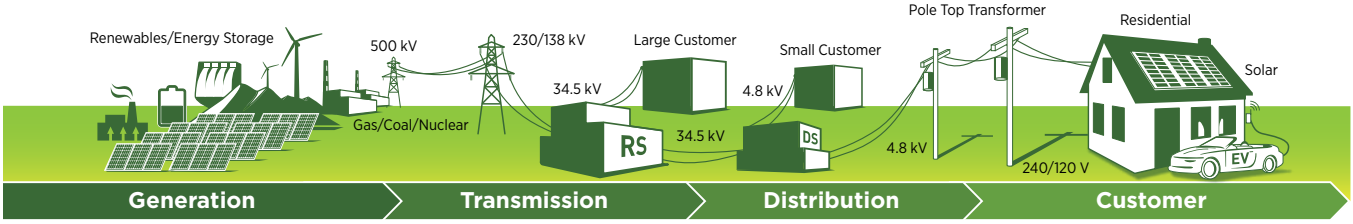
3,807 miles of underground distribution cables

310,750 distribution utility poles

3,148 pole-mounted capacitor banks

130,919 distribution transformers

167 distribution substations



Power Reliability and Resiliency

LADWP maintains a vast network of transmission and distribution overhead lines, underground cables, towers, poles, cross-arms, transformers, and vaults. We are committed to providing reliable, resilient and safe electricity service for our customers.

Power Infrastructure Upgrades—At a Glance

Infrastructure Replacements	FY 2021-22 Achievements	FY 2022-23 Goals
Poles	3,799	3,500
Crossarms	11,087	12,000
Transformers	1,183	1,150
Underground Cable (miles)	51.9	60
Vaults	22	22

Investing in Infrastructure

Planned and sustained infrastructure replacement is a cost-efficient and highly effective approach to maintaining reliability. LADWP has invested significantly in the proactive replacement and upgrade of aging and undersized electrical equipment—approximately $5.7 billion from FY 2016-17 through FY 2021-22, with over $1 billion budgeted in FY 2022-23. Through the Power System Reliability Program (PSRP), LADWP proactively inspects power equipment to identify needed repairs related to distribution, subtransmission, transmission and generation infrastructure that is the backbone of L.A.'s power grid.

In the past year, we have expanded and accelerated the PSRP goals to lay the foundation for our transformation to 100% clean energy. We are building a clean energy future that will be dominated by variable renewable energy resources, such as wind and solar, more distributed local solar, and more electrification of buildings and transportation. Investing in modernizing, upgrading and expanding infrastructure is vital to creating an energy future that is clean, reliable and resilient.

Benchmarking

LADWP's power reliability metrics continue to beat national norms. Our power system average interruption frequency and duration indices (SAIFI and SAIDI) ranked in the 1st quartile, and our outage restoration time (CAIDI) ranked in the 2nd quartile when compared to investor-owned utilities (IOUs) nationwide and in California. The ranking was based on a 2020 benchmarking study performed by First Quartile Consulting and Pandora Consulting using data submitted by participating utilities and from the federal U.S. Energy Information Administration (EIA).

On average, our customers experienced less than one outage and 115 minutes of power interruption during FY 2021-22.

Local Projects to Enhance Reliability and Resiliency

LADWP's Power System is undertaking a series of larger projects, including substations and transmission upgrades, which will ensure power reliability and resiliency as we transition to a 100% clean energy future.

Distribution Upgrades

In FY 2021-22, LADWP crews completed repairs on more than 6,975 infrastructure-related jobs. We exceeded our distribution equipment replacement targets for poles, crossarms, transformers, and underground cables, and are on track to meet our FY 2022-23 targets.

Our long-term goals call for expanding capacity to address our undersized 4.8 kV distribution system. Currently, more than 300 electrical lines carry power loads that are above their rated capacity. By 2035, we plan to expand distribution station capacity by 800 MW and receiving station capacity by 650 MW.

Substation Automation

LADWP plans to automate 170 substations at a rate of 10 to 12 substations per year to improve operational capabilities and communications while reducing operations and maintenance costs. So far we have automated 94 substations—including 14 receiving stations, 69 distributing stations, seven switching stations, and four generating station switchyards. This accounts for 55% of all substations when excluding converter stations, large customer stations, and pole-top distributing stations.

Outage Notifications

LADWP issues automated power outage alerts to keep customers informed of the status of power outages in their neighborhoods. Customers who enroll can be notified through texts, emails or both when there is a power outage affecting their neighborhood. As of November 2022, 56,436 customers have subscribed to receive outage notifications, and the system has proven effective during several significant outage events. LADWP also keeps customers informed of major incidents via social media, including Facebook, Twitter and Nextdoor.

Sign up: LADWP.com/OutageAlert

Western Energy Imbalance Market

On April 1, 2021 LADWP successfully joined the Western Energy Imbalance Market (EIM), culminating four years of planning and preparing to become fully integrated with other participating power agencies. The Western EIM, operated by the California Independent System Operator (CAISO) offers a way for electric grid operators in the West to share energy reserves. This helps ensure reliability, lower costs, reduce GHG emissions, and optimize renewable energy resources. Through the Western EIM, LADWP voluntarily provides excess energy to other participating utilities as needed to maintain reliability in their service areas while retaining control of our generation and rate-setting.

During the first 18 months of EIM operations (April 1, 2021 to September 30, 2022), LADWP's participation generated gross benefits of $92.6 million in revenues and cost savings, and a reduction of our overall GHG emissions by 6.3%. LADWP continues to operate as an overall net importer in the market.

Wildfire Mitigation Plan

Wildfires have posed a significant threat to public safety. LADWP is updating our Wildfire Mitigation Plan for 2023 to keep our customers safe, and our power service reliable and resilient. Updated annually per state legislation, the plan describes how we continually mitigate the threat of wildfires posed by electrical lines and equipment. Our plan includes preventative strategies and programs such as system hardening through design and construction, vegetation management, operating protocols, and inspection and maintenance programs.

In the fall of 2022, LADWP's Wildfire Mitigation Plan was commended by the Wildlife Safety Advisory Board (WSAB) for the recent expansion of our public outreach efforts. WSAB also recognized LADWP for our vegetation management practices, asset information and workforce training protocols.

Learn more: LADWP.com/WildfirePlan

LAX Receiving Station in Mid-Flight Construction is underway on a new receiving station (RSX)—the first high-voltage receiving station to be built in Los Angeles in more than three decades—along with new transmission and distribution connections to support the modernization of LAX. With all underground structures and conduit installations completed, LADWP crews have begun work to equip the station, install the distribution system cables, and then test and commission the complete system. The entire receiving station is on track to begin operating in early 2025.

LA100

ACHIEVING 100% RENEWABLE ENERGY IN LOS ANGELES

Our Path to 100% Clean Energy

LADWP's efforts to achieve 100% clean energy for Los Angeles are guided by several important policy decisions and legislative mandates.

State Legislation

SB 100: California Senate Bill 100 (SB 100) requires that all retail electricity sold in California is supplied by renewable and zero-carbon resources by the year 2045. SB 100 allows zero-carbon resources such as large hydroelectric and nuclear power along with renewable energy resources, which include wind, solar, geothermal and small hydroelectric technologies. Combustion resources fueled by renewably derived biofuels or renewably derived hydrogen are also considered zero-carbon resources.

SB 1020: California Senate Bill 1020 (SB 1020), passed into law in September 2022, adds interim goals to the SB 100 mandates. SB 1020 requires that at least 90% of retail energy sales come from renewable energy and zero-carbon electricity by the end of 2035 and 95% by the end of 2040 as milestones to an eventual target of 100% by 2045. Additionally, all electricity procured to serve California state agencies must be supplied by renewable or clean energy resources by the end of 2035.

City of Los Angeles

In response to motions by the City Council to determine the investments needed to achieve 100% renewable energy for Los Angeles, LADWP partnered with the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) to compile the Los Angeles 100% Renewable Energy Study (LA100), completed in 2021. The LA100 study presented several pathways outlining how LADWP could achieve 100% clean energy by 2045 and as early as 2035 in the fastest scenario. Based on the LA100 findings, the City Council approved accelerated decarbonization goals: supply 100% clean energy for Los Angeles by 2035, and 80% renewable and 97% carbon-free energy by 2030.

Determining a Path

Meeting our city's aggressive renewable energy and decarbonization goals requires immediate actions along with near-term and long-term planning. While undertaking the critical next steps, we have initiated two related planning efforts to determine the optimum path to achieve our clean energy goals and meet reliability requirements in a way that is equitable and has minimal impact on customers.

2022 Strategic Long-Term Resource Plan

Described as a roadmap for our power future, the 2022 Strategic Long-Term Resource Plan (SLTRP) analyzed pathways for achieving our city's ambitious goals. Completed in October 2022, the plan incorporates community and stakeholder input and builds upon the LA100 study findings. The plan is based on the core principles and key considerations of environmental benefits and equity, reliability and resiliency, and affordability and rate impacts.

After being paused for five years while the LA100 study was underway, the 2022 SLTRP involved a robust public engagement process, bringing together an Advisory Group representing community-based organizations, city and local government, other utilities, customers, neighborhood councils, business and environmental organizations. In addition, LADWP conducted three virtual public outreach meetings to create awareness and gather feedback from customers across the city.

Using the same methodology and modeling as LA100, the 2022 SLTRP focused on three case scenarios that all would achieve 100% carbon-free energy as early as 2035, and interim targets of 80% to 90% renewables by 2030. The cases differed in the pace for decarbonization and reducing local pollutant emissions as well as the amount of distributed energy resources that would be developed, which resulted in tradeoffs in cost and rate impacts. The recommended case would achieve the interim goal of 80% renewables by 2030, rather than 90% by 2030, and was the least expensive of the three options. The recommended path most closely adheres to the City Council motion to achieve 100% carbon-free energy by 2035 in a way that is equitable and has minimal adverse impact on ratepayers.

Learn more: LADWP.com/SLTRP

LA100 Equity Strategies

As LADWP pursues 100% clean energy, how can we ensure that the transition will improve energy equity for all Angelenos? That is the primary question that LA100 Equity Strategies (LA100ES) seeks to answer. Now in its second year, LA100ES brings together members of environmental justice communities in Los Angeles and other key stakeholders to identify community-informed, energy-just, and implementation-ready outcomes for L.A.'s clean energy transformation.

LA100ES is led by a team of researchers from NREL and UCLA, and guided by a Steering Committee and an Advisory Committee. Extensive public engagement has included "listening sessions" with community members. LA100ES has already led to several initiatives, such as "Cool LA," which helps income-qualified customers manage their electric bills and stay safe during extreme heat through level pay plans and significant discounts on room air conditioners. Other Equity Strategies initiatives include our EZ-SAVE program, providing low-income and Lifeline discounts to customers and adoption of a policy by our Board to prohibit shut-offs of low-income customer utilities as a debt collection tool.

Learn more: LADWP.com/LA100ES

Staying on Track to 100% Clean Power

Following are actions underway to successfully transition to 100% clean power, as identified by the findings of the LA100 study.

Accelerate to 80% Renewables and 97% Carbon-Free Power by 2030

Renewable Energy Highlights

- Achieved 35% renewable energy in 2021. With the addition of the Red Cloud Wind Project, our renewable energy portfolio is expected to increase to nearly 44%.
- About 1,120 MW of solar power and battery energy storage, representing 2,875 GWh, is now providing clean power from utility-scale solar facilities in the Mojave Desert and delivered to L.A.
- Red Cloud Wind Project (331 MW), located about 85 miles southeast of Albuquerque, New Mexico, was placed into service in December 2021.
- Northern Nevada Geothermal Portfolio increased to 153 MW on August 4, 2022.
- Eland Solar + Energy Storage Center is under development in the Mojave Desert. It will have capacity for 400 MW of solar and 300 MW / 1,200 MWh battery energy storage. Eland is expected to reach commercial operation in mid-2025.

Upgrading VIC-LA Transmission

LADWP is upgrading a key East-West transmission line to support new renewable energy expected to come into the L.A. Basin from east of Los Angeles. The Victorville-to-LA Basin (VIC-LA) Transmission System stretches 399 miles and includes three 500 kV and two 287 kV lines. The VIC-LA expansion will increase the path's capacity by about 450 MW, from 3,850 MW to 4,300 MW, and includes 12 projects at various facilities along the route. As of the end of 2022, LADWP had successfully raised 14 new transmission towers and placed nearly 16 circuit miles of upgraded transmission line in service. We completed transformer upgrades at Victorville and replaced the circuit breaker/disconnect switch at Rinaldi. A majority of the projects are on track to be in service by the end of 2023.

Upgrading McCullough-Victorville Lines 1 and 2

Another important transmission path is the 163-mile McCullough-Victorville Lines 1 and 2, anchored at each end by the McCullough and Victorville switching stations. LADWP is installing new series capacitors at both stations, upgrading the circuit breakers and disconnect switches at Victorville, and upgrading both transmission lines. By installing new equipment to reduce power losses at both receiving stations, the power transferred on the lines will be increased from 35% to 70%, expanding transmission capacity by 475 MW—equivalent to powering approximately 300,000 homes for one year.

Rosamond Switching Station

LADWP is laying the groundwork to build a new switching station that will be vital to achieving our renewable energy targets. The Rosamond Switching Station will enable LADWP to bring more renewable energy to Los Angeles via the Barren Ridge Renewable Transmission Corridor. The new 230 kV switching station will tie into the existing 230 kV Barren Ridge-Haskell Canyon Lines 1, 2, and 3. The station will be equipped for five bays but has potential for up to 10 bays in anticipation of future interconnection requests by renewable energy developers. The station is expected to be in service in November 2025.

Accelerate Local Transmission Upgrades

LADWP has identified 10 transmission lines and other related projects that are needed by 2030 to support the expansion of renewable energy. Many of these projects are in planning and design or construction. Among these is the 11.5-mile underground Scattergood-Pershing-Olympic Cable, connecting the new receiving station at LAX with the Scattergood Generating Station to improve reliability for West Los Angeles.

Transform Local Power Generation

In-basin local power generation is at the crux of LADWP's ability to transition to 100% clean energy while maintaining a reliable and resilient power grid. The LA100 study showed that in the future, we can rely upon clean energy technologies like wind, solar, and batteries for most of our everyday power needs. However, LA100 pointed to the need for combustion turbines—driven by renewable fuels—located within the L.A. Basin for limited periods during critical situations. While this type of power generation would be used infrequently, it is considered essential to keeping the lights in case of a wildfire, earthquake, or other event causing the loss of transmission and generation that could cut off power to the city from outside of the L.A. Basin.

To meet the need for clean in-basin generation that can be dispatched during critical events, as well as support increased energy demand in an environmentally

conscious way, LADWP is proposing to build green hydrogen-ready generating units at our in-basin power plants, starting at the Scattergood Generating Station in Playa Del Rey.

Role of Green Hydrogen

Hydrogen is the simplest and most abundant element in the universe. With economy-wide decarbonization taking shape, there is growing interest in hydrogen as a promising energy carrier since it emits no carbon when used. Traditionally, hydrogen is produced from fossil fuels in processes that produce carbon, but LADWP is focused on the role of green hydrogen in achieving 100% clean energy. Green hydrogen is hydrogen produced from a process called electrolysis, utilizing renewable power to split water into hydrogen and oxygen. Green hydrogen is currently expensive and the necessary infrastructure to support its production, transportation, and storage does not yet exist. However, with an accelerated focus on clean energy, a developing landscape with supporting policies and subsidies, and rapid technology innovations, green hydrogen can play an important role in decarbonizing the power sector and the broader economy.

Scattergood Green Hydrogen-Ready Modernization Project

LADWP is planning to develop a green hydrogen-ready generating system to replace Scattergood Generating Station Units 1 and 2. The new units would be capable of using 30% green hydrogen, blended with natural gas, starting on Day 1 of operation. LADWP will increase green hydrogen usage as turbine technology and infrastructure continues to improve with a goal of achieving 100% green hydrogen fuel as soon as it is technically and practically feasible to do so. The project will bring Scattergood into compliance with state regulations banning the use of ocean water cooling—a process called once-through cooling (OTC). The project will also promote environmental justice by providing the flexibility needed to reduce the use and related emissions at the Valley Generating Station, located in an environmentally burdened community.

Scattergood Generating Station

Haynes Generating Station

A relatively new combined cycle generating unit at Haynes Generating Station in Long Beach—one of the most efficient in our fleet—must be shut down by December 2029 or be brought into compliance with OTC regulations. To continue operating Haynes to maintain power reliability, we plan to retrofit the unit with a new cooling system that will use recycled water. This is a cost-effective solution that will also foster more energy equity citywide, as the use of Haynes offsets the need to increase use of the Valley Generating Station.

Accelerate Energy Storage

LADWP plans to build over 1,000 MW of energy storage in-basin and out-of-basin by 2030, as called for by the LA100 study. We are evaluating proposals for new energy storage capacity at the Beacon Energy Storage Center, situated near several LADWP renewable facilities in the Mojave Desert. In addition, we have completed the demolition of Haynes Units 3 through 6 to make room for future energy storage. We expect to increase the capacity of our Castaic Pumped Hydropower Plant to provide more pumped storage as we integrate increased renewables. All future large solar power agreements will incorporate energy storage. We are encouraging development of customer "behind-the-meter" energy storage that is tied to the local distribution system. As of fall 2022, we have interconnected 22.6 MW "behind-the-meter" energy storage with more than 9 MW of energy storage pending interconnection.

Accelerate Distributed Resources Equitably

LADWP continues to ramp up our distributed energy resources (DER) programs—small-scale energy resources connected to the local distribution system. Our goals are to expand local solar by deploying 1,000 MW and offsetting 500 MW of power capacity through demand response programs by 2030. To date, we have achieved 50% or greater participation from disadvantaged communities in the majority of our DER programs. As LADWP designs new programs to attract customers, we will continue to prioritize disadvantaged communities and low-income customers to foster energy equity. To that end, we have expanded our solar Feed-in Tariff (FiT) program from 150 MW to 450 MW, and launched the FiT Plus and Virtual Net Energy Metering pilot programs to help foster solar development in environmentally impacted and disadvantaged communities.

Intermountain Power Project Is Going Green

The Intermountain Power Project (IPP), which is the last remaining coal power plant in LADWP's energy portfolio, is slated to stop using coal fuel in mid-2025. LADWP and our partners in the Intermountain Power Agency (IPA), which owns IPP, are developing a new state-of-the-art 840 MW combined cycle generating system that will be capable of using up to 30% green hydrogen as a fuel source beginning the first day of operation, and be capable of using up to 100% by 2045.

The new IPP will also feature a seasonal energy storage system, located in nearby caverns built within a giant salt dome, that will hold up to 300,000 MWh of renewable hydrogen for months at a time. Construction of the new generating facility, including the technology to convert renewable energy into green hydrogen, is underway. The IPA has also established an initial contract to secure a portion of the underground salt cavern storage capacity. When completed in mid-2025, IPP will lead the way to making green hydrogen an economically viable carbon-free power supply.

Intermountain Power Project
Construction is underway to build a new combined cycle generating station that will use 30% green hydrogen as a fuel source on the first day of operation, slated for July 2025.

Maximizing L.A. Sunshine

Fostering local solar to benefit L.A. residents and businesses continues to be a high priority for us. As of December 2022, more than 70,400 customer-installed solar systems were connected to the grid, with 638 MW of total installed local solar. Through the 2022 SLTRP, we evaluated scenarios to achieve a minimum of 900 MW to 1,500 MW of local solar, and—as part of the LA100 Equity Strategies—we are working to ensure these new resources are developed equitably across the city. LADWP's suite of local solar programs include new initiatives to benefit underserved and environmental justice customers living in multi-family buildings.

Feed-In Tariff

We have expanded our FiT program to 450 MW as well as increased the maximum size allowed for each renewable energy project. The FiT program enables property owners and developers to install 30 kW systems or greater and directly feed generation into the local distribution grid. Under this program LADWP will purchase all energy from FiT projects for up to 20 years through a power purchase agreement.

Feed-In Tariff Plus Pilot Program

LADWP launched the Feed-in Tariff Plus (FiT+) Pilot Program in April 2021, with 10 MWs of capacity available for customers and solar developers. FiT+ encourages the installation of energy storage coupled with local solar projects, making solar energy dispatchable, while increasing LADWP's grid resiliency and reliability. This program is designed for customers seeking to co-locate solar with energy storage projects. The configuration optimizes the deliverability of renewable energy to serve nearby load centers at hours that are most beneficial to the electric grid.

Virtual Net Energy Metering

Residential customers living in condominiums and apartments have limited opportunities to enjoy the benefits of solar. LADWP's Virtual Net Energy Metering (VNEM) Pilot Program, launched in March 2021, represents a continued commitment to expand programs to populations with low solar participation rates. VNEM is designed to remove barriers to solar benefits and make it easier for renters to manage their electrical bills over time. VNEM is similar in structure to the FiT program, but available to residents of multifamily housing, a sector with great potential for rooftop solar systems. Developers will sell the output of local solar projects directly to LADWP. Proceeds from the energy sales will be financially divided among tenants, project developers, and property owners.

Community Solar

Since launching the Community Solar Program (CSP) in 2015, LADWP has been developing innovative business models to better serve our customers and help create the grid of the future, meet renewable energy mandates, increase solar equity, and empower communities in the clean energy transition. The CSP includes the Solar Rooftops and Shared Solar Programs. It came about in response to findings of LADWP's Equity Metrics Data Initiative (EMDI), which identified a lack of solar in disadvantaged and underserved communities. Community Solar programs offer an opportunity for all Angelenos to access the health and environmental benefits of solar power.

Net Energy Metering

Residents and businesses in Los Angeles continue demonstrating their enthusiasm for going solar. The Net Energy Metering Program enables customers to install their own solar systems and connect to the city's electric grid. Customers benefit by receiving a credit on their bill for the amount of power that their solar system provides to the grid. Through the program, LADWP provides customers with a solar net energy meter and works with them on connecting the meter to the power grid. Although the solar incentive program is no longer available, customers can still take advantage of the Federal Tax Credits until the end of 2024.

Learn more: LADWP.com/solar

Local Solar – By the Numbers

As of December 30, 2022

Over 70,400 customer-installed solar systems are connected to the grid. We have a total of 638 MW of customer and utility-built local solar.

Net Energy Metering/Solar Incentive Program:

- $338.9 million in solar incentives for 34,601 systems since the program launch in 1999*
- $288 million in incentives for 279.5 MW under state legislated program SB1*
- Total net-metered solar (including projects funded through the Solar Incentive Program): 537.6 MW from 70,460 systems, generating approximately 887,040 MWh per year, equivalent to serving energy to 158,968 homes for one year.

*Includes incentives processed after the SIP program closed on December 31, 2018

Feed-in Tariff (FiT) Program:

- 138 renewable local solar projects in service, totaling 93.2 MW
- 2 additional projects in the Owens Valley totaling 4 MW of capacity and 2 renewable landfill gas projects with a capacity of 4 MW
- Total installed FiT program capacity: 101.2 MW
- The amount of energy generated from these projects is approximately 166,980 MWh per year, equivalent to serving power to 29,925 homes for one year.

Feed-In Tariff Plus Program

- 4 projects active and under development with a capacity of 1.29 MW

Community Solar
Solar Rooftops Program

- 31 installations completed
- 106.9 kW of solar power being delivered
- 13 projects totaling 49.3 kW in the queue for construction

Shared Solar Program

- 3,211 customers enrolled
- 283,500 kWh per month supplied

Utility Built Solar

- 44 in-basin solar projects totaling 7 MW
- 47 installations in-service totaling 26 MW. The largest installations are 8.5 MW at Pine Tree and 10 MW at Adelanto.

Learn more: LADWP.com/solar

LA DWP Charging Ahead

Major Milestone

20,000 Chargers Installed

LADWP plays a vital role in converting our city's car culture into clean, carbon-free vehicles and transit. As the city's electric service provider, we offer incentives to encourage customers to drive electric while expanding the necessary charging station infrastructure to make EVs a reliable and convenient mode of transportation for Angelenos and visitors.

In November 2022, we achieved major milestones of 20,000 charging stations and 100,000 electric vehicles in Los Angeles. We are on track to meet our next electric transportation milestones and provide EV infrastructure for the 2028 Summer Olympic and Paralympic Games, and support the goal of 750,000 EVs in the city by 2030.

Charging Up Disadvantaged Communities

This past year, LADWP continued to focus on improving access to EV charging stations in disadvantaged communities, such as building EV charging plazas at the Green Meadows Recreation Center in South Los Angeles and Van Nuys Service Center.

Both will offer microgrids comprised of community solar power with public EV charging stations. We continue to offer public charging stations at many facilities, including the John Ferraro Building in downtown Los Angeles, the Los Angeles Zoo, various city libraries, and other city facilities.

Fast Charging

Our vision for transportation electrification includes creating EV fast charging hubs at LADWP and other city facilities. The Van Nuys Customer Service Center EV plaza, nearing completion, will offer four DC Fast Chargers (DCFCs) and joins the Crenshaw Customer Service Plaza, already in operation. A fast-charging hub located at our distributing station in Woodland Hills (DS-136) is completed, offering three DCFC stations to the community.

Highlights

As of December 30, 2022

Installations

- **20,254** estimated commercial EV chargers in the City of Los Angeles:
  - **3,920** publicly accessible EV chargers
  - **16,334** non-public commercial EV chargers
- **101,452** estimated registered EVs in the City of Los Angeles*
- **1,096** Level 2 and 41 DCFCs installed and in-service at LADWP facilities, including 19 publicly accessible DCFCs

Rebates

- **2,476** rebates issued for used EVs, totaling $2.9 million
- **16,001** rebates issued for commercial EV chargers, totaling $81.4 million
- **4,240** rebates issued for residential EV chargers, totaling $2.1 million

*Data derived from the Electric Power Research Institutes' most recent Q3 2022 Vehicles in Operation Report

Rebates for EVs and EV Chargers

We continue providing incentives to encourage customers to drive electric, with enhanced rebates for low-income customers who apply for the Used EV and Residential EV Charger programs. Since 2019, we have allocated $125 million in funding to support residential, commercial, and used EV rebates.

Partnerships

Since 2018, LADWP has partnered with other City Departments to develop and support transportation electrification projects for employees, City fleets, or public use through agreements that reserve funds and reduce air emissions. More than $32 million has been allocated to deploy EV charging stations at the Port of Los Angeles, Department of Transportation, General Services, and Recreation and Parks facilities. Additional MOUs are under development to expand EV charging station deployment in Los Angeles.

Our Fleet

LADWP has embraced electrification of our transportation fleet as part of our emphasis on corporate sustainability and environmental responsibility. Some of the latest and most modern EVs in the market have been purchased for use during our day-to-day operations thanks to a "Zero Emission First" procurement policy that adheres to a City of Los Angeles directive. As of November 2022, we have 160 all-electric vehicles in our fleet. Newly purchased vehicle models include 15 Ford F-150 Lightning all-electric trucks and eight Ford Mach-E sport utility vehicle, along with 65 Chevrolet Bolts, three Ford Focus all-electrics, three Kia Soul all-electrics, 59 Nissan Leafs, and seven Toyota Rav 4s.

With a state mandate to achieve 100% of medium- and heavy-duty vehicles purchased for government fleets to be zero emissions by 2027, we will substantially ramp up from 200 charging stations to 500 installed annually to keep pace.

Putting Customers First

Introduction

We recognize that our customers continue to face challenges with managing their electric and water use and costs as we recover from the pandemic. This impacts all customer segments, from our large commercial and industrial to our residential customers. Due to economic impacts, many have to continuously manage consumption, evaluate whether to invest in conservation and electrification, and consider how to pay their bills. We believe the best way to support our customers is by engaging with them and by adapting our operations rather than just returning to business as usual.

We're Here to Help

LADWP is committed to ensuring that every customer has equitable access to water and power, and we are focused on better understanding the needs of the customers, communities and industries that we serve. We accomplish this through continuous customer feedback and input, and listening to the challenges customers face when accessing available services and programs. With this feedback, we have collaborated with local, state, and federal agencies to make changes to eliminate these barriers. We have reexamined our processes and policies to improve accessibility and engagement, equip our employees with the necessary tools and information, and implement new programs and services.

Equitable Access to Our Programs

As we forge a 100% clean energy future for L.A., it is our responsibility to ensure that all customers and communities share in the benefits of our clean energy transition and that everyone can live with the changes. LA100 Equity Strategies (described on Page 36) will help define the barriers and identify strategies for creating an equitable clean energy future. In 2022, our Board initiated several programs to help customers save energy and money, rolled out assistance programs for those who can least afford to pay their utility bill, and established a moratorium on utility shutoffs for our most vulnerable customers. Described on the following pages, these programs include bill pay relief funding, level pay, EZ-SAVE, and Cool LA rebates for energy-efficient cooling units.

1.6 million
Calls handled

31,192
Emails handled

By the Numbers - for FY 2021-22

120,757	314,443	1 minute 41 seconds	31,427
Online transactions	In-person visits	Average call wait time	Appointments in Service Centers

Help Is Here

LADWP was able to secure more than $330 million in relief funding through the California Arrearage Payment Program (CAPP) and the California Water and Wastewater Arrearage Payment Program (CWWAPP). The funds were a tremendous help for customers and were applied to nearly 300,000 residential accounts to assist with water, electric and sewer bills.

In addition to the CAPP and CWWAPP programs, LADWP also worked with the state, community, and charitable organizations to obtain an additional $120 million in relief funding. This was made possible primarily through Housing Is Key, the Low-Income Household Energy Assistance Program, and the Low-Income Household Water Assistance Program. LADWP continues to work with local service providers and community organizations to expand program awareness and increase enrollment for qualifying customers.

Level Pay Program

To help our customers better manage their water and power bills, we launched the Level Pay Program in September 2022. Level Pay provides customers the ability to have a consistent, predictable bill to plan for and pay on a monthly basis. In addition, customers' past due amounts can be included in their payments. We have also expanded repayment options for low-income discount customers, allowing more time and flexibility to help them bring their accounts up to date.

Learn more: LADWP.com/LevelPay

EZ-SAVE

To assist customers experiencing financial hardships, we streamlined the EZ-SAVE program. We removed the requirement to provide proof of income in 2021 by allowing customers to self-certify their eligibility. This program change resulted in a 40% increase in enrollment. As of October 2022, more than 145,000 customers are enrolled in the EZ-SAVE program.

Learn more: LADWP.com/CARES

Accessibility

LADWP is working on a number of initiatives to improve customer support and accessibility to programs and services. In January 2022, we piloted the Customer Consultations Program to conduct one-on-one meetings with customers to assess their specific needs, identify programs suitable for them, and walk them through the enrollment process for various programs. We focused first on low-income customers. Based on the positive response, we will expand consultations to include all residential customers, and then small and micro businesses.

We also established four grants with local community service providers to pilot a community-based engagement approach to help customers to enroll in this program. We are also providing support in languages other than English and making sure customers know that we can help them in the language they prefer.

Scam Awareness and Online Reporting

Scams continue to be a growing problem for utilities across the nation, and imposters are becoming more sophisticated in their tactics. LADWP belongs to a national organization, Utilities United Against Scams (UUAS), through which we work together on nationwide campaigns to increase awareness and protect our customers from scams. Due to an increased number of reported scam calls, we are better informing our customers about common scam tactics. We have added resources to our website's Scam Alert information page, including a new self-reporting feature. Our goal is to decrease the number of customers negatively impacted by scammers.

Learn more: LADWP.com/ScamAlert

Customer Service Centers

We have 14 customer service centers located in various communities throughout the city, and one in the Owens Valley. Earlier this year, the service centers in Watts and North Hills were relocated to larger, modernized locations with ample customer parking. During the pandemic, the centers offered appointment-only visits and are in the process of resuming walk-in visits.

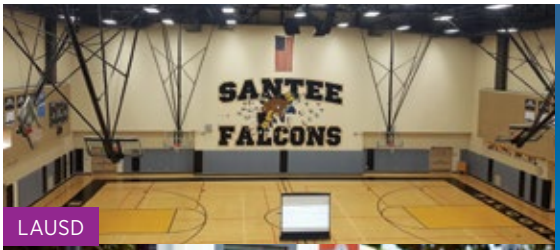
Updates: LADWP.com/CSC

Customer Survey

LADWP launched the Customer Connections Survey program in 2022 to learn more about our customers' needs. More than 50,000 customers participated and received approximately $7.5 million in bill credits. We plan to continue our research by establishing a customer research panel focused on low-income and Lifeline customers.

We're Here to Help

Customer Savings and Sustainability



LAUSD


LADOT / EV Charging Solutions, Inc.

Airgas USA, LLC


Los Angeles World Airports


LAUSD

Sustainability Awards

LADWP celebrated our largest customers' achievements in electrification, efficiency and conservation at the 7th Annual Sustainability Awards, held virtually on April 7, 2022. The awards, which were launched in 2016, recognize significant positive environmental impacts through participation in LADWP rebate programs. By keeping water and electric use efficient, and by adopting electric vehicles and installing chargers, our largest customers are able to save on costs, conserve natural resources, and contribute to the environmental goals of the City of Los Angeles.

Through their outstanding commitment to sustainability, these organizations collectively reduce CO2 emissions by 7,801 metric tons annually, equivalent to removing about 2,000 gas-fueled vehicles from the roads.

Awards were presented to 20 customers for Leadership and Impact in four categories: Energy Efficiency, Water Efficiency, Electrification of Transportation (LADWP's Charge Up L.A. Program), Demand Response. Leadership Awards are based on absolute water and energy savings, and Impact Awards are based on how much water and energy was saved compared to their annual average use.

Energy Efficiency 1st Place Winners

- **Leadership: Los Angeles Unified School District,** saved about 11.7 MWH of energy annually by increasing energy efficiency levels at 76 of their new and existing schools, replacing more than 250,000 inefficient lamps with high-efficiency LEDs, installing over 20,000 lighting controls, and upgrading their chiller and variable frequency drives (VFDs).
- **Impact: DataDirect Networks, Inc.**, reduced annual electric use by 45.79% by installing 322 linear fluorescent lights with more efficient LED lighting and sensors, and installing 10 LED exterior wall and ceiling fixtures; three LED pole mount fixtures; interactive effects; and new wallbox/wall/ceiling mounted sensors.

Water Conservation 1st Place Winners

- **Leadership: Decron Properties Corporation**, saved 2.1 million gallons of water by installing 628 high efficiency toilets at three locations.

Transportation Electrification 1st Place Winner

- **Leadership (Level 2 Chargers): Decron Properties Corporation,** installed 158 Level 2 electric vehicle chargers at seven locations.
- **Leadership (Level 3 Chargers): Los Angeles Department of Transportation,** installed 30 DC Fast Chargers at 10 locations.

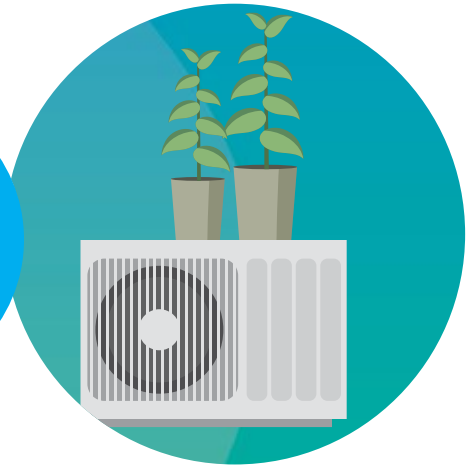
Demand Response 1st Place Winners

- **Leadership: Los Angeles Unified School District**, curtailed 18,445 kW and saved 74 MWh of electricity by raising the chilled water temperature by 2 to 4 degrees, reducing interior lighting and plug loads, and turning off miscellaneous fans and parking structure lighting.
- **Impact: Airgas USA, LLC**, curtailed 87% of base load for the entire 2021 demand response season, saving 9.2 MWh of power by shutting down process compressors at the facility.

Learn more: LADWP.com/SAP

COOL LA

Beat the Heat & Stay Safe



Cool LA Initiative Launched

To address extreme heat faced by L.A. residents, especially our most vulnerable customers, our Board championed a new Cool LA initiative that provides generous rebates for various cooling units to help keep residents safe at an affordable cost. Under Cool LA, low-income, older adults, and medically-vulnerable LADWP customers are eligible to receive a $225 rebate for the purchase of portable, window, and room air conditioners. The initiative also provides a "level pay" bill option to help these customers manage higher summer bills by spreading them out over the entire year.

The Cool LA rebates are available through LADWP's Efficient Product Marketplace (EPM), a convenient one-stop online store that provides pricing and rebate information for various popular energy-efficient products. Nearly 1,300 LADWP customers purchased and received rebates for nearly 1,500 air conditioners from September 1st through the first week of November 2022.

Learn more: LADWP.com/Cool-LA

Residential Consumer Rebates

LADWP's Consumer Rebate Program (CRP) promotes the use of energy efficient products by offering financial incentives to residential customers. This program is designed to educate LADWP residential customers about the benefits of energy efficiency and help them to purchase and install qualifying products in their home. We offer rebates on energy efficient products including cool roofs, Energy Star® qualified windows, heating, ventilation and air conditioning systems, pool pumps, whole house fans and other energy saving measures.

Learn more: LADWP.com/CRP

The Consumer Rebate Program processed over 16,400 applications in FY 2021-22, resulting in more than $19 million in rebates to customers.

EPM Expanded in 2022

LADWP's EPM is a convenient online marketplace that provides pricing and rebate information for various popular energy-efficient products. In addition to expanding with the Cool LA marketplace, the EPM rebate menu added EV chargers and the Low Global Warming Potential filter, which enables customers to identify refrigerators that reduce greenhouse gas emissions. In addition, EPM partnered with our residential demand response program, Power Savers, to increase participation and offer rebates on smart thermostats. In less than one week, the joint effort resulted in more than 1,000 thermostats purchased and enrollment increased by 25% in the Power Savers Program.

Learn more: LADWP.com/EPM

Energy-Saving Programs Enhance Equity

Innovative Multifamily Retrofits Program

The Comprehensive Affordable Multifamily Retrofits (CAMR) program, launched May 1, 2022, helps renters save on their energy bill and provides access to energy-efficient retrofits for owners of low-income, multifamily properties. The $75 million program provides significant financial incentives and technical assistance to help owners and their tenants save energy and reduce costs.

CAMR's free property assessments help property owners identify efficiency opportunities. Participants earn incentives based on their property's reduction of greenhouse gases, resulting from efficiency upgrades implemented both in common areas and inside tenants' units. The largest incentives are awarded for retrofits that lower energy costs for tenants. Additional incentive opportunities for the installation of on-site solar photovoltaic systems may also be available to properties that achieve a minimum of 5% electrical energy savings.

Additionally, participants may apply energy savings from past LADWP program participation (within the last five years) toward the minimum electrical energy savings requirement.

Learn more: LADWP.com/CAMR

Free Energy Improvement Upgrades

After being paused due to the COVID-19 pandemic, we relaunched the Home Energy Improvement Program (HEIP) in September 2022. The program offers residential customers free home upgrades to improve energy and water efficiency in their homes, which can potentially lower their bills and enhance their comfort level.

Learn more: LADWP.com/HEIP

Refrigerator Exchange and Recycling

LADWP continued offering Energy Star® refrigerators in exchange for qualified older model refrigerators, free of charge, for qualified low-income customers.

Energy Star® refrigerators can save up to $60 annually on operating costs. Throughout FY 2021-22, we exchanged 3,333 refrigerators for a potential savings of more than 2,664 MWh, and removed older inefficient units to be recycled in an environmentally responsible manner.

RAD Champion Award

In recognition of outstanding performance in the Refrigerator Recycling and Refrigerator Exchange Program, LADWP received the 2022 RAD Champion Award from the Environmental Protection Agency's Responsible Appliance Disposal (RAD) Program. The RAD Champion Award recognizes high-achieving RAD Partners for their accomplishments in reducing emissions of ozone-depleting substances and greenhouse gases through insulation foam recovery. Since becoming a RAD partner in 2012, LADWP has processed a total of 91,035 units, which is equivalent to the carbon dioxide emissions from 67,602 homes' energy usage for one year. This marks the third consecutive RAD Champion Award for LADWP.

Energy Management Programs

Like energy efficiency, demand response is considered an important strategy to achieve our clean energy future, focusing on ways to reduce energy demand on the customer side of the meter. Through demand response programs, customers are incentivized to shift their energy use to off-peak periods, when rates are typically lower and there is less demand on the grid. This helps customers reduce their cost and improves the reliability power supply and infrastructure.

Demand Response at Work

LADWP provides incentives to commercial and industrial customers who participate in our Demand Response Program. Participating customers reduce their energy use during the peak summer months, increasing reliability of the power grid and supporting the integration of renewable energy resources. In 2022, LADWP increased the number of DR events from three to nine to achieve higher energy savings. We shaved 1,177 MWh in energy use by 63 participants—consisting of high-rise office buildings, retail-chain stores, schools, manufacturing plants, cold storage facilities and other large commercial and industrial customers.

Since the commercial and industrial DR program began in 2015, LADWP has incentivized around $5.2 million to participating customers, offsetting 40 MW of power generation. For the 2023 demand response period, LADWP looks to expand the program to offset 60 MW of power generation.

Learn more: LADWP.com/DRProgram

Demand Response at Home

The Power Savers Program helps residential and small business customers better manage their energy use and reduces demand on the power grid during peak periods. Customers participate with their own smart thermostat, which they can purchase through the EPM at a discount. Customers also receive an incentive upon enrollment and for each year of participation. In 2022, LADWP expanded the program from 32,000 to about 43,700 thermostats, with about 37,200 residential customers participating. Through 10 separate Power Savers events, customers achieved 781 MWh of energy savings, contributing to a 32 MW reduction in electricity demand. Since 2020, LADWP has provided over $11 million in incentives to participating customers, and achieved 1,344 MWh energy savings. We will continue to offer the program to the customers in summer 2023.

Learn more: LADWP.com/PowerSaversProgram

After three consecutive record dry years, we boosted rebates for turf replacement, water-efficient devices and appliances, and enhanced other water-saving measures for residential and commercial customers.

Embracing Sustainable Landscaping

Did you know that approximately 44% of water for typical single-family homes is mostly used for outdoor irrigation? One way to achieve significant water savings is to replace water-thirsty lawns with sustainable and drought tolerant landscaping. Effective October 1, 2022, we increased the rebate for replacing turf, or grass lawns, with sustainable landscaping from $3 to $5 per square foot for up to 5,000 and 50,000 square feet for residential and commercial customers, respectively. We now offer turf replacement design services for eligible single-family residential customers to help transform their landscapes to California Friendly® gardens.

Learn more: LADWP.com/Landscaping

Landscape Training

Along with providing the rebate, LADWP offers free hands-on workshops and online training classes to help customers create landscaping that is sustainable and attractive.

Virtual Training: LADWP continues to offer online Landscape Training Classes that provide tips and guidelines to help customers transform lawns into California Friendly® and drought-tolerant landscaping. The one-hour virtual trainings are offered several times each month in English and Spanish as well as Mandarin. Classes cover landscape design and the basics of landscape irrigation.

Learn more: LADWP.com/Landscaping

Hands-On Workshops: We also offer Hands-On Workshops to show customers how to transform their landscape and save water. Customers get their hands dirty learning the proper way to remove turf, grade the soil for stormwater capture, install drip irrigation, and plant native and drought tolerant landscaping that thrives in their yards. LADWP also offers many free resources on our website, such as watering guides, planting templates and YouTube videos.

Sign-up: lawnbegone.ladwp.com

Flume: Monitor Water Use on Your Device

LADWP has partnered with Flume Inc. to provide a way for residential customers to monitor their water use and easily catch leaks and other water waste at home. With easy DIY installation, customers can gain real-time access to their water usage data straight from a smartphone or other smart device app. Through a special offer, customers can receive the Flume device at a significant discount through a streamlined direct discount process; customers can simply order

Since we started the Turf Replacement Program over a decade ago, Angelenos have said goodbye to nearly 52 million square feet of grassy lawns through this program. The amount of water saved through those turf transformations is enough to supply water to more than 28,000 homes per year.

the device directly from Flumewater.com/LADWP. Our customers have responded enthusiastically to the program with more than 7,000 Flume devices distributed within the first few months after it launched in September 2022.

Learn more: Flumewater.com/LADWP

Boosting Rebates

To help residential customers step up their efforts to conserve water, we increased rebates to $250 for residential premium high-efficiency toilets and $500 for high-efficiency clothes washers in early 2022. For commercial customers, rebates for premium high-efficiency toilets were increased to $300. These incentives will help drive the market towards making conservation a California way of life.

Learn more:
Residential rebates: LADWP.com/Save
Commercial rebates: LADWP.com/CWR

Home Water Use Report

Given the success of the Home Water Use Report pilot program, with about 70,000 LADWP customers receiving bi-monthly water use reports, we plan to expand the program for all single-family customers in 2023. The program guides customers in achieving water savings by sending them individual water use consumption data with tailored messaging about how to save water.

On TAP for Large Customers

For our commercial customers, LADWP has significantly boosted rebates from $2.50 to $7.00 per 1,000 gallons of water saved, and an eight-fold increase in the maximum per-project rebate to $2 million through the Technical Assistance Program (TAP). TAP offers financial incentives for large water-saving projects, such as upgrading cooling towers, that help multifamily, commercial, and industrial building customers conserve water. Also, qualified customers can receive free facility and cooling tower assessments to identify savings opportunities through our incentive programs.

Learn more: LADWP.com/CWR

Connecting with Communities

As social distancing restrictions faded, we welcomed the opportunity to safely connect with our communities at more in-person events throughout the city. We hosted our first in-person community event on December 21, 2021 at the Chatsworth Nature Preserve with the Winter Solstice Community Wellness Gathering. During the 2021 event, we also honored all who perished in the COVID-19 pandemic. We hosted the second annual Winter Solstice Sunrise Ceremony at Chatsworth Nature Preserve on December 21, 2022. For both events, we partnered with the Fernadeño Tataviam Band of Mission Indians to celebrate the winter season.

In April 2022, our annual Earth Day Open House was back in full swing at the Chatsworth Nature Preserve after a two-year COVID-19 hiatus. The event welcomed close to 3,000 Angelenos to the preserve to experience live animal exhibits, bird observations and a guided two-mile walking tour that featured newly metamorphosized baby western toads at the vernal pool.

Over the summer of 2022, our employees took the opportunity to safely gather and to give back to their communities with in-person community cleanup events and march in parades to encourage others to join the LADWP team. LA Pride and the Martin Luther King Jr. parade were just two summer events where we had a presence and encouraged community members to consider joining LADWP.

Virtual platforms continued to play a key role in our outreach efforts despite the return of in-person events, especially with neighborhood councils and other community groups on significant issues, and construction projects affecting their areas. We continued to support LADWP's water and power crews through outreach as they maintain critical infrastructure in local neighborhoods, and we sought to minimize impact on customers and local traffic as more cars returned to the streets.

Throughout the pandemic, we never slowed down on outreach and engagement with stakeholders to support LADWP's important water and power planning efforts, including the 2022 Power Strategic Long-Term Resource Plan (SLTRP) and LA100 Equity Strategies, both of which build off of the Los Angeles 100% Renewable Energy Study (LA100). Both efforts included monthly meetings that brought together representatives from a cross-section of interests to provide input on the power resources that would help us reach our renewable goals, and the policies and programs that would ensure equity in that transition.

With the ongoing drought, and L.A.'s increased watering restrictions, LADWP also restarted the Water Stakeholder Engagement Group to provide policy updates and stress the need for support across the city on our water-related initiatives.

With so many of our stakeholders using digital communications to stay connected, we maintained a strong presence on the social media platform Nextdoor, where LADWP can reach over 855,000 members and about 1,300 neighborhoods. We also stayed in contact with our communities through a monthly digital newsletter, LADWP in the Community, which reaches

about 2,400 subscribers. During fiscal year 2021-22, LADWP hosted or participated in 275 community events and meetings.

Learn more: ladwp.com/Community

Partnerships in Education

The goal of our educational programs is to help students understand important STEM concepts and plan for future careers with the City of Los Angeles and LADWP. We also partner with Owens Valley schools to support communities along the Los Angeles Aqueduct where LADWP has a significant presence.

In the school year 2021-2022, LADWP and our employees continued a four-decades-long tradition of partnering with the Los Angeles Unified School District (LAUSD), nonprofit education-related organizations, local schools and teachers on programs and activities to enhance education and students' learning. During the year, our education programs reached more than 120,000 students, 2,100 teachers and about 700 schools.

Over summer 2022, the electric vehicle lessons, "Charge Into the EV World," were updated incorporating suggestions from teachers who field tested them in the spring semester. The lessons were rolled out districtwide and to private or parochial and charter schools in fall 2022. These lessons focus on climate change, smart grid and energy supply sources. LADWP is partnering with LAUSD and an education lesson publisher to provide the EV curriculum free to local high school science classes. The new EV curriculum was featured during an LAUSD Career Technical Education (CTE) workshop in the fall with teachers in five of 15 career pathways. At this workshop, we also shared information about present and future LADWP career opportunities. During calendar year 2022, 94 teachers for over 10,000 students from 57 schools ordered the EV lessons.

We conducted the second virtual LADWP Science Bowl competition during the spring of 2022. We also co-sponsored the intensive Environmental Teacher Institute in which a record 45 teachers participated over four Saturdays, emphasizing water and energy topics, which were incorporated into stewardship projects. For the first time, the program extended to teachers in Orange County.

For decades, LADWP employees have volunteered to lend their expertise to schools in LADWP's service area, including the Owens Valley, through the Adopt-A-School Program. We are expanding to include career readiness at three high schools, emphasizing STEAM (science, technology engineering, arts and math) fields, cybersecurity as well as environmental awareness pathways. For the 2022-23 school year, the program has expanded to 27 schools.

Learn more: LADWP.com/Education

Los Angeles Times
IN EDUCATION

Reaching the most students of any of our programs, LADWP-Times in Education covers water conservation, energy efficiency, and other sustainability topics. We provide digital access to teacher guides. Students of participating teachers are eligible for the student art poster contest. The 2021-2022 LADWP-Times in Education Art Poster Contest Theme was "Water Conservation, Energy Efficiency, Renewable Energy and Local Water Supply Sources."

Left, the Grand Prize Winner and 1st Place, 9th Grade poster by Michael Kim, Loyola High School


Bank of America

Financial Health and Competitive Rates

As a public municipal water and power utility, LADWP exists by and for our customers, who are also our owners. We develop all of our strategic plan goals and objectives so that they are achievable, measurable, and cost effective, and are designed to maintain cost competitive rates for our customers. LADWP is committed to meeting our operational needs and financial goals through:

- Maintaining diverse power and water sources
- Meeting or exceeding all regulatory commitments
- Continuing to invest in water and power system reliability
- Maintaining competitive retail rates and financial stability
- Improving customer service

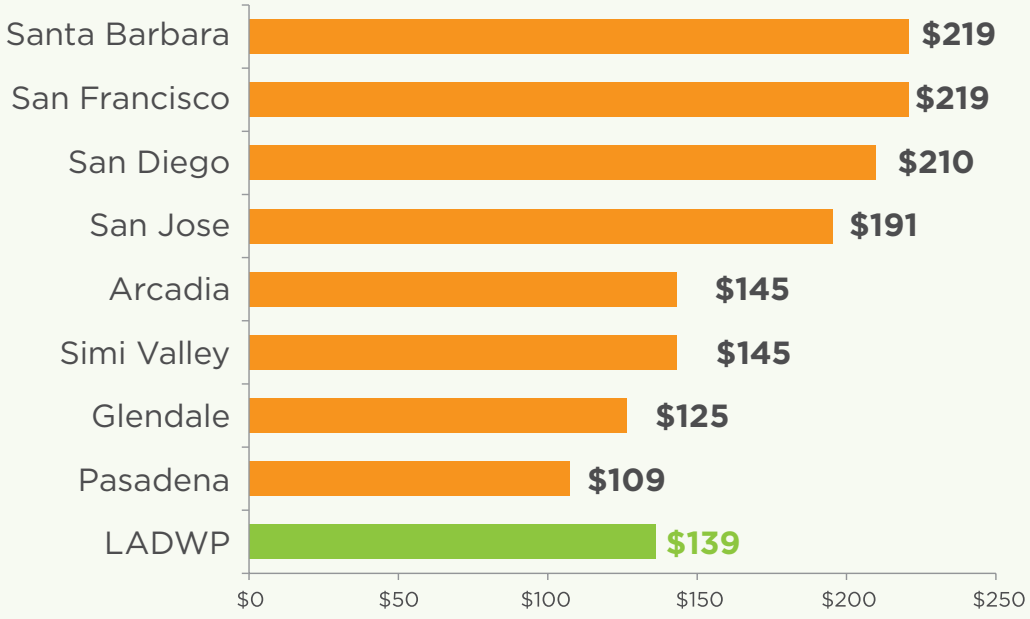
For fiscal year 2022-23, the budgets approved by the Board of Water and Power Commissioners are consistent with our strategic plan, reflect continued cost controls and prioritization of resources that address our customer-driven priorities.

Successful Bond Sales

Maintaining strong credit ratings is a key component of keeping water and power rates competitive. LADWP continues to maintain high bond ratings from Wall Street, and this enables us to access low-interest borrowing and achieve cost-effective capital projects, which saves money for our customers.

Since 2012, LADWP has refunded $7.2 billion of debt and yielded $1.2 billion in present value savings. To maintain our financial health and protect our ratepayers, we follow Board approved financial planning metrics, including debt service coverage, full obligation coverage, operating cash, and capitalization ratios.

Our Water and Power Rates Are Competitive



Residential combined monthly water and power bills, as of September 2022.
Based on the midpoint of all residential electricity use of 300 kWh per month and residential water use of 10 HCF per month.

Financial Data

This provides an overview of the financial activities of the LADWP for fiscal years 2017-18 through 2021-2022.

For the complete financial statements:
LADWP.com/financialinfo

WATER SERVICES FACTS IN BRIEF

	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018
Use of Water					
Average Los Angeles Population Served	3,819,538	3,853,323	3,896,077	3,986,031	3,996,298
Average daily use per capita (gallons)*	113	112	105	105	112
Water Sales for Fiscal Year (Millions of Billing Units of 100 cu. Ft)*	199.2	209.3	199.9	195.4	205.7
Water Supply (Millions of Billing Units of 100 cu. Ft.)					
Local supply*	23.1	24.0	15.0	14.0	9.5
DWP Aqueduct*	30.1	55.9	127.2	136.1	134.0
MWD*	160.3	138.0	67.0	60.0	79.6
Recycled Water*	5.2	4.9	4.2	3.3	4.3
Gross Supply	218.7	222.8	213.4	213.4	227.4
Diversion from (to) local storage*	-0.5	0.4	-0.3	-0.7	-0.1
Net supply to distribution systems	218.2	223.2	213.1	212.7	227.3
Bond Ratings					
Moody's/S&P**/Fitch	Aa2/AA+/AA	Aa2/AA+/AA	Aa2/AA+/AA	Aa2/AA+/AA	Aa2/AA+/AA
KBRA**	AA+	AA+	Not Applicable	Not Applicable	Not Applicable

ENERGY SERVICES FACTS IN BRIEF

	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018
Number of Customers					
Residential	1,430,123	1,414,367	1,404,768	1,396,643	1,385,470
Commercial and Industrial	128,074	126,418	126,153	125,673	123,680
All Other	7,079	7,030	7,010	6,484	6,391
Total customers of all classes	1,565,276	1,547,815	1,537,931	1,528,800	1,515,541
Power Use					
Sales to Ultimate Customers - kilowatt (kW) hours	21,310,156,058	20,837,903,238	21,127,502,753	21,961,382,983	22,383,310,345
Sales to Other Utilities - kW Hours	1,890,471,776	2,086,733,000	1,050,536,000	626,058,000	532,293,000
Average annual kW hours per residential customer	5,350	5,667	5,335	5,252	5,248
Net dependable capacity, megawatts	8,004	7,954	7,981	7,937	7,850
Bond Ratings					
Moody's/S&P**/Fitch	Aa2/AA-/AA-	Aa2/AA-/AA-	Aa2/AA/AA-	Aa2/AA/AA	Aa2/AA/AA
KBRA**	AA	AA	Not Applicable	Not Applicable	Not Applicable

WATER AND POWER (CONSOLIDATED) FINANCIAL FACTS IN BRIEF

($ Billions)	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018
Financial Data					
Total Assets	34.3	30.9	29.0	28.3	26.9
Total Net Position	10.3	9.8	9.1	8.8	8.4
Total Annual Operating Revenue	6.2	5.8	5.1	5.3	5.0
Total Annual Budget	6.7	6.2	6.3	5.7	5.4
Retiree Benefits Data Based on Market Value of Assets					
Unfunded/(Overfunded) Pension Liability	0.6	(1.7)	1.1	0.8	0.9
Funded Pension %	96.2%	111.1%	92.3%	94.0%	93.1%
Unfunded/(Overfunded) Retiree Medical Liability	(0.1)	(0.3)	0.2	0.5	0.4
Funded Retiree Medical %	106.8%	101.2%	92.5%	82.8%	84.5%

* 2022 Amounts for these lines are preliminary and subject to change pending validation.

** S&P continues to rate bonds issued prior to December 2019. Starting in FY 2021, Kroll Bond Rating Agency rated the Power 2021 B Bonds and the Water 2020 B, 2020 C, and 2021 B Bonds.

WATER SERVICES SELECTED FINANCIAL DATA AND STATISTICS

($ Millions)	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018
Operating Revenue					
Residential	$673.9	$634.8	$537.6	$515.2	$509.6
Multi Dwelling	500.2	460.5	402.0	396.0	352.1
Commercial and Industrial	351.7	301.2	253.2	262.3	254.7
Other	80.9	67.3	82.3	80.0	73.7
Total Operating Revenue	$1,606.7	$1,463.8	$1,275.1	$1,253.5	$1,190.2
Operating Income	406.5	386.9	317.3	309.1	339.0
As % of operating revenues	25.3%	26.4%	24.9%	24.7%	28.5%
Change in Net Position*	$232.6	$290.6	$208.6	$167.2	$200.3
Balance Sheet					
Net utility plant	$10,128.1	$9,481.9	$8,926.0	$8,436.8	$8,033.0
Capital additions, net	652.3	576.8	504.5	455.8	488.4
Capitalization					
Net Position	3,917.2	3,684.7	3,394.0	3,185.4	3,018.3
Long-term debt	6,874.7	6,740.2	6,334.1	6,139.4	5,786.4
Interest on debt	207.0	208.7	218.4	214.5	205.3
Key Financial Planning Metrics					
Debt Service Ratio	1.84	2.10	1.85	1.70	1.82
Number of Days Cash on Hand	182	274	259	253	183
Debt to Capitalization %	63%	64%	65%	66%	65%
Operations					
Gallons sold (billions)	149.0	156.6	149.5	146.2	153.6
Customers - average number (thousands)	694	692	689	687	683
Average Revenue per hundred cu. ft. Sold (in dollars)					
Residential	$8.76	$7.66	$7.15	$7.07	$6.48
Multiple Dwelling	7.96	7.05	6.37	6.45	5.62
Commercial and Industrial	8.08	6.95	5.89	5.94	5.53
Water Supply (millions of billing units of 100 cu. ft.)					
Local supply	23.1	24.0	15.0	14.0	9.5
DWP Aqueduct	30.1	55.9	127.2	136.1	134.0
Metropolitan Water District	160.3	138.0	67.0	60.0	79.6
Recycled Water	5.2	4.9	4.2	3.3	4.3
Gross Supply	218.7	222.8	213.4	213.4	227.4
Diversion from (to) local storage		0.4	-0.3	-0.7	-0.1
Net supply to distribution systems	218.7	223.2	213.1	212.7	227.3

*The Change in Net Position amount under Fiscal Year 2018 excludes the cumulative effect of change in accounting for post retirement benefits other than pensions under GASB 75.

ENERGY SERVICES SELECTED FINANCIAL DATA AND STATISTICS

($ Millions)	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018
Operating Revenue					
Residential	$1,637.1	$1,614.0	$1,360.6	$1,376.3	$1,265.7
Commercial and industrial	2,784.7	2,492.1	2,372.5	2,560.1	2,429.3
Sales for resale	230.2	186.7	61.5	111.5	91.4
Other	(58.2)	(24.3)	12.7	22.9	17.8
Total Operating Revenue	$4,593.8	$4,268.5	$3,807.3	$4,070.9	$3,804.2
Operating Income	801.0	744.1	364.0	512.3	725.3
As % of operating revenues	17.4%	17.4%	9.6%	12.6%	19.1%
Change in Net Position*	$307.3	$415.6	$90.1	$226.9	$278.2
Balance Sheet					
Net utility plant**	$14,087.6	$13,457.8	$12,826.9	$12,173.8	$11,531.0
Capital additions, net	652.1	668.5	695.2	715.1	634.7
Capitalization					
Net Position	6,424.9	6,117.6	5,702.0	5,611.9	5,384.9
Long-term debt	12,327.4	11,360.8	10,761.7	10,370.1	9,772.3
Interest on debt	371.0	359.0	370.1	355.4	348.3
Transfers to City of Los Angeles	225.0	218.4	229.9	232.6	241.8
Key Financial Planning Metrics					
Debt Service Ratio	2.44	2.60	2.11	2.40	2.59
Number of Days Cash on Hand	245.15	247.10	211.00	204.00	176
Debt to Capitalization %	65%	65%	65%	65%	64%
Full Obligation Ratio	1.88	1.88	1.74	1.90	1.88
Operations					
Kilowatt hours sold (billions)	23.4	23.0	22.3	22.6	23.0
Customers - average number (thousands)	1,565	1,548	1,538	1,529	1,516
Average Revenue per kWh Sold (in cents)					
Residential	22.2	20.9	18.9	18.8	17.4
Commercial and Industrial	19.8	18.9	16.9	17.5	16.0
Energy production (billions in kWh)					
Total generation	17.2	17.3	17.9	16.9	14.0
Purchases	9.4	9.0	7.3	9.0	12.3
Total production	26.6	26.3	25.2	25.9	26.3
Net system dependable capability (thousand megawatts)					
Power System-owned facilities	4.7	4.7	4.8	4.8	4.8
Jointly owned and firm purchases	3.3	3.2	3.2	3.1	3.1
Total	8.0	7.9	8.0	7.9	7.9

*The Change in Net Position amount under Fiscal Year 2018 excludes the cumulative effect of change in accounting for post retirement benefits other than pensions under GASB 75.

**A reclassification has been made to the 2018 Net Utility Plant amount to conform to the 2019 financial statement presentation.

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