



JANUARY 2025



WATER & POWER ASSOCIATES, INC.

NEWSLETTER

For a Sustainable Los Angeles



The Search for the Ratepayer Advocate

By Jack Humphreville

The Office of Public Accountability (OPA) is a City Charter mandated Office that was created to provide public independent analysis of Department of Water and Power (DWP) actions as they relate to water and electricity rates. OPA is charged with shedding greater light on DWP's operations and finances and analyzing proposed changes in water and power rates independent of the DWP and City Officials. All direct and indirect costs [\$5.9 million including contractual services and related costs] of the OPA are reimbursed by the DWP. Source: 2024-25 Adopted Budget

The Office of Public Accountability/Ratepayer Advocate <<https://opa.lacity.gov/>> is one of the most important City departments because of the transparency it provides to Ratepayers and Angelenos regarding rates and the operations and finances of the Department of Water and Power.

Over the next decade, the role of the independent Ratepayer Advocate will be of paramount importance because DWP will be going through a significant transition that is expected to cost more than \$100 billion, causing rates to quadruple. This includes the LA 100 Renewables Plan by 2035, the Power Supply Reliability Program, the development of local water supplies, and the Pure Water Los Angeles wastewater recycling facility at Hyperion.

The Citizens' Selection Committee <<https://opacsc.lacity.gov/>> ("CSC") is charged with finding the next Executive Director of the Office of Accountability ("Ratepayer Advocate") to replace Fred Pickel whose term expired on December 12, 2023 but has been allowed to continue until replaced. The Committee consists of five members appointed by the Mayor (2), the President of the City Council (2), and the Chair of the Energy and Environment Committee (1).

We are familiar with two of its members, David Nahai, the former General Manager (2007-09), and John Murray, a longtime director of the Metropolitan Water District and head of the successful Ratepayer Advocate search committee in 2012. Other members include Corissa Hernandez, a member of the small business community and a member of the Boyle Heights Neighborhood Council, Michael Mahdesian, a member of the small business and philanthropic community, and Caryn Mandelbaum, a recognized water expert and Staff Counsel representing the Public Advocates Office at the California Public Utilities Commission.

The CSC got off to a slow start. On March 17, 2023, the City Clerk notified Mayor Bass and Councilmembers Krekorian and Yaroslavsky that the term of Fred Pickel, the current Ratepayer Advocate, ended on December 12, 2023. The first meeting was held on January 6, 2014, in large part because of the failure of the Mayor and Council President to make timely appointments, After further delays caused by the Personnel Department and the City Administrative Officer, the CSC retained Korn Ferry, a leading executive search firm, in August to assist in finding a suitable replacement. The firm subsequently then prepared a ten-page

(Continued on page 2)



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Position Specification brochure outlining the qualifications and responsibilities of the Ratepayer Advocate.

<<https://drive.google.com/file/d/1jOKktfX3xuRwGj2pyoIJjO7WHzqBxPyo/view>>

One issue is compensation. The brochure lists a range of \$250,000 to \$350,000, in large part at the insistence of the City Administrative Officer, even though the City does not support the Office of Public Accountability. Korn Ferry, based on its knowledge of the market, has suggested a range north of \$500,000, an amount supported by a study commissioned by the Ratepayer Advocate.

While there is no set timetable for selecting the Ratepayer Advocate, the Committee is currently interviewing numerous candidates identified by Korn Ferry. The expectation is that a Ratepayer Advocate will be identified in the first quarter of 2025.

Until then, Fred Pickel, the current Ratepayer Advocate, has agreed to continue in his role and, more than likely, will assist in the transition.

While the Korn Ferry brochure lists numerous qualifications for the ideal candidate, there are three areas where the understated Pickel excelled. The first was that he was able to work constructively with many constituencies, including DWP management, City Hall, and the Ratepayers. He was always well prepared, his answers were short and concise, and he was willing to provide information that was not popular with the political establishment.

Pickel and his team also had an excellent knowledge in the development of rates, able to match the increase in rates with actual needs. This allowed DWP to defer portions of requested rate increases.

Pickel was also able to recruit an excellent staff, including Camden Collins and Grant Hoag.

There is some concern that City Hall may want to muzzle the Ratepayer Advocate.

Recently, the Ratepayer Advocate indicated that the “sustained escalation in rates and bills [associated with the LA 100 plan] is not reasonable.”

His office also said that the proposed Stormwater Capture Parks Program “is not cost effective as a water source of supply, and as such would have an unreasonable rate impact on DWP customers.” This finding was ignored by the politically appointed Board of Commissioners.

The Ratepayer Advocate also said the financing of the Silver Lake Master Plan with DWP funds is not reasonable because of the lack of a nexus between the Plan and DWP, an opinion that was not well received by a certain councilman.

We need an independent Ratepayer Advocate who is willing to act in the best interests of all Ratepayers and Angelenos, even if it is not popular with City Hall.

President's Column

2024 has been a year of Transition at LADWP. Marty Adams has retired as General Manager and Janisse Quinones was selected to be Chief Executive Officer. Simon Zewdu left as Sr AGM - Power and Dave Hanson has replaced him, and Aram Benyamin retired as Chief Operating Officer. The filling of this position has been put on hold awaiting the results of a reorganization study. In addition, two new Chief of Staff positions have been established in the CEO's Office; Jason Rondou for Power and Evelyn Cortez-Davis for Water.



Last month, Ken Silver and I met with Janisse to introduce her to the Water and Power Associates (WPA). We were both very impressed with her insights and her grasp of the issues affecting both the Water and Power Systems. We look forward to the WPA supporting her as she leads LADWP.

The lead article in this issue addresses one other key transition that is taking place, although outside of LADWP, with the replacement of the independent Rate Payer Advocate (RPA), Fred Pickel. Fred has done an outstanding job for over 12 years in representing the interests of the Ratepayers of Los Angeles in seeing that LADWP continues to provide the high level of water and electricity service that they have become accustomed to. At the same time, critically looking at the revenue needed to provide those services. He has provided economically sound recommendations, reducing the costs being borne by LADWP customers. WPA looks forward to working with the new RPA to see that reliable, cost-effective services are available to Angelenos.

In this issue we provide an update on the progress achieved in getting final approval for Sites Reservoir, which, if constructed, will be the first major new reservoir in California since the construction of Diamond Valley Reservoir by the Metropolitan Water District over 20 years ago.

There is also an update on the development of the 2025 Strategic Long Term Resource Plan which has been renamed the LA 100 Plan. This includes information on the progress that has been made in implementing the last plan and projections for the future. Also included is a schedule of the planned Public Outreach on the plan. In addition, there are several articles on the development of renewable resources which will be key to our energy future.

Also included are summaries of the presentations that were made to the WPA Board during their monthly meetings by Water & Power System managers regarding issues they are dealing with. WPA Members are invited to attend these meetings which are held at 10:00 am on the second Wednesday of each month in room 1471 of the JFB. Please email me ahead at jgewe@hotmail.com if you plan to attend, so we can make arrangements for you.

Finally, there is our Mystery History Question on Page 13. See how well you know the LADWP History.

Jerry Gewe, President

Sites Reservoir Update

THE PROJECT CLEARS ONE LEGAL HURDLE BUT RUNS INTO ANOTHER

By Robert Yoshimura

As we reported in the July 2024 and October 2024 issues of this newsletter, the Sites Reservoir Project has progressed through several administrative and legal steps to gain approval for construction. Shortly after approval of the final Environmental Impact Report (EIR) in November 2023, a coalition of environmental organizations led by Friends of the River filed a lawsuit in Yolo County Superior Court challenging the adequacy of the EIR. In June 2024, the judge presiding over that case found in favor of the State of California, which led the plaintiffs to file an appeal. Late in September 2024, a three-judge panel from the Third District Court of Appeals affirmed the lower court's decision and cleared the path for the project to proceed.

Of note was the rapid conclusion of these lawsuits in compliance with California's new "shot-clock" rule for resolution of legal challenges to certain types of critical infrastructure projects. The Yolo court decision was rendered in 150 days and the Appellate Court decision came 108 days after that. Both were completed within the 270 days allowed by the rule.

With the legal challenges to the EIR resolved, two final steps in the permitting process remain: water quality certification and a water right permit. All other necessary permits have been obtained including an Incidental Take permit from the California Department of Fish and Wildlife, which was granted just last month.



Water Quality Certification. Water Quality Certification is required under Section 401 of the Clean Water Act for projects that may discharge into the waters of the United States, which is the case for the Sites Project. The Sites Project purpose is to take water from the Sacramento River (part of the waters of the US) during heavy storms and return that water to the same river

during dry periods. The purpose of the Water Quality Certification process is to assure compliance with applicable water quality standards and to protect the receiving body of water for its designated beneficial uses.

In March 2024, the Sites Project Authority (the Authority) requested such certification from the US Army Corps of Engineers (Corps) via the California Water Resources Control Board (Water Board). Shortly thereafter, the Corps asked for additional information, including documentation about compliance with the Endangered Species Act, the National Historic Preservation Act, and certain Environmental Protection Agency guidelines.

However, late in September at about the same time as the EIR issues were resolved, the corps withdrew the request for certification (thus effectively denying the certification) because the Authority had not yet submitted the needed additional information.

While the Authority considers this action a setback, it still has the opportunity to submit the required information to the Corps and is working with them as well as the Water Board to do so. If submitted soon enough, the Corps could reach a decision on the water quality certification without restarting the permit process. The parties involved in this process believe the issues can and will be resolved with only a minor impact on the schedule.

Water Right Permit. California's water right permitting and licensing process has been the exclusive means of allocating an appropriative water right to a specific water project since 1914. Under this process, the Authority is obliged to prove that unappropriated water is available to supply the project and that the use of water is in the public interest.

The Authority has conducted an extensive analysis of water availability after all other water rights are fulfilled and all environmental needs are considered. Furthermore, it has projected hydrologic conditions as far out as 2070 to include the potential impacts that climate change may have on those conditions. Their studies have concluded that there will be water available to store in Sites Reservoir while all other water uses are met. Furthermore, the average annual estimated amount of available water will exceed Sites Reservoir's average annual usage by a factor of at least 3.

The Water Board accepted the Authority's amended application for a water right permit in May 2023 and deemed it sufficient to proceed with a public notice and water right hearings. A public notice was issued on June 2, 2023, and the hearings began in August 2024 and are expected to continue into early 2025. The Authority anticipates a final decision on the water right permit in mid-2025.

Regarding the public interest, the Sites Reservoir Project is specifically intended to fulfill both water supply and environmental needs while compensating for the consequences of climate change. As the planet slowly warms, less precipitation is expected to fall as snow and contribute to the Sierra snowpack which historically has provided about 30% of the state's water storage. Instead, more precipitation will fall as rain, particularly during atmospheric river storms. When such heavy rains occur, water will be diverted from the Sacramento River and stored in Sites Reservoir. During dry years, the stored water will be reintroduced to the Sacramento River to be used downstream for sustaining the ecosystem of the River and the Delta, as well as providing a supplemental water supply for both the State Water Project and the Central Valley Project.

Affordability was a primary concern to the Authority in its benefit-cost assessment. It applied a “Value Planning Effort” which resulted in a downsized project which saved \$2 billion compared to the original proposal. The resulting project is a 1.5-million-acre-foot (AF) reservoir that will yield an average of 240,000 AF per year. The current estimated cost of the project is \$3.93 billion.

Had the project been in operation today, it would have captured enough water during the last two years to fill the reservoir to capacity. The 1.5 million acre-feet of water thus stored would have been sufficient to provide for the needs of 3 million people for one year. As it was, all that water flowed out through the San Francisco Bay and provided no benefit to anyone.

Solar Update

By William Glauz

Excerpted from Power Engineering, LADWP News and Renewable Energy World:

<https://www.power-eng.com/solar/u-s-solar-generation-continues-to-make-huge-gains-in-2024/>

<https://www.ladwpnews.com/ladwp-celebrates-clean-energy-milestone-at-the-eland-solar-plus-energy-storage-center/>

<https://www.renewableenergyworld.com/solar/utility-scale/arevon-fires-up-the-first-solar-storage-peaker-plant-in-the-u-s/>

2024 has been an impressive year for renewable energy growth so far, according to the latest Electric Power Monthly release from the U.S. Energy Information Administration (EIA).

Solar continues to grow the fastest in the U.S. During the first nine months of 2024, utility-scale solar power generation (thermal and PV) output increased a whopping 30.1% from the same period in 2023. Estimated total solar from all facilities (utility- and smaller-scale) increased 25.1% during this same period.

In the month of September 2024 alone, utility-scale solar (thermal and PV) increased 29% from the month of September 2023.

Significant installations are driving the increase in solar generation, with solar accounting for 59% of U.S. generating capacity additions in the first half of 2024, EIA reported in September. The increase in solar capacity was also supported by the development of new battery storage capacity, the agency said.

In 2019, the Los Angeles City Council approved the two Power Purchase Agreements that paved the way for Eland 1 and Eland 2 to be developed. LADWP collaborated with Arevon Energy, the developer, owner and



Arevon's Vikings Solar + Storage in Imperial County, California.
Courtesy: Arevon Energy

operator of Eland, to procure the power produced from Eland under a 25-year power purchase agreement. Eland is a 2 phase 400 MW solar photovoltaic power plant combined with a 1200 MWh Battery energy storage plant, located on 4600 acres near Mojave in Kern County. This will be the largest solar/battery energy storage system on the LADWP grid. Phase 1 of Eland was recently completed and energized with Phase 2's completion expected in early 2025. The Eland project is forecasted to help L.A. reach 64 percent clean energy by the end of 2025. Eland will provide 7 percent of Los Angeles's total energy needs while helping to reduce reliance on fossil fuels. LADWP has over 1,100 MW of utility-scale solar previously installed.

Arevon has also developed its Vikings Project, a 157 MW solar plant with 600 MWh battery energy storage in Imperial County, California that will provide energy to San Diego Community Power.

In July, Arevon also started operations at its 200 MW/800 MWh Condor Energy Storage Project in San Bernardino County, California. Arevon also recently secured offtake agreements for its Cormorant and Avocet Energy Storage Projects.

EV Battery Replacement Costs Expected to Plummet

By William Glauz

Excerpted from Inside EVs

<https://insideevs.com/news/742022/battery-replacement-costs-fall-cheaper-than-fixing-engine/>

The high-voltage battery is the heart of an electric vehicle. Over the years there have been many concerns raised over the long-term operation of the lithium-ion (Li-ion) battery packs for EVs; how long will they last and what are the costs for replacement.

There is now some good data that shows that Li-ion battery packs are lasting much longer than originally anticipated. Most modern batteries can last twice as long and go double the distance of the typical 8-year, 100,000 mile warranty. Tesla owners frequently report driving over 200,000 miles in their EVs with minimal degradation. There's even a 1.2 million-mile Model S out there that has undergone four battery replacements, bringing the average replacement mileage to 300,000 miles!



Then there is the question of how much the battery replacement would cost, when the time comes for replacement. Current Lithium prices have dropped considerably, over 80% since last year. This is primarily due to the slowing demand for EVs and oversupply of lithium. American lithium production is having a hard time competing with China at these low commodity prices. Battery pack prices are expected to drop to \$50/kWh by the end of this decade. Meaning the replacement of a 100kWh battery pack would be less than \$5,000, which is on par with the cost

for replacing an internal combustion engine. This cost can even be reduced further by selling back the used, degraded battery pack for secondary use, possibly for utility scale battery installations. In addition to these significant cost reductions, battery packs are also becoming much more efficient and longer lasting. These costs and battery improvements also benefit the use of batteries for electric utility uses.

Trump's Selection for Energy Secretary, Chris Wright

By William Glauz

Excerpted from the Associated Press and Power Magazine

<https://apnews.com/article/trump-2024-election-energy-secretary-d546f5f81d7b2347b49905be924dfcd7>

<https://www.powermag.com/woodmac-analysis-says-trump-energy-agenda-will-face-roadblocks/>



Donald Trump and his nominee for Secretary of Energy, Chris Wright
Chris Wright downing a shot of fracking fluid

President-elect Donald Trump has selected Chris Wright, a campaign donor and fossil fuel executive, to serve as energy secretary in his upcoming, second administration. Additionally, North Dakota Gov. Doug Burgum, his choice to head the Interior Department, will also lead a newly created National Energy Council that will seek to establish U.S. “energy dominance” around the world.

CEO of Denver-based Liberty Energy, Wright is a vocal advocate of oil and gas development, including fracking, a key pillar of Trump’s quest to achieve U.S. “energy dominance” in the global market.

Wright has been one of the industry’s loudest voices against efforts to fight

climate change, and could give fossil fuels a boost, including quick action to end a year-long pause on natural gas export approvals by the Biden administration.

Frequently criticizing what he calls a “top-down” approach to climate by liberal and left-wing groups, Wright has argued that the climate movement around the world is “collapsing under its own weight.” He has never served in government but has written that more fossil fuel production is needed around the globe to lift people out of poverty.

Jackie Wong, senior vice president for climate and energy at the Natural Resources Defense Council, an environmental group, called Wright “a champion of dirty fossil fuels” and said his nomination to lead the Energy Department was “a disastrous mistake.”

An analysis from global data and analytics group Wood Mackenzie says Republican control of the White House and Congress means U.S. energy policy will move away from net-zero emissions targets, but there remains bipartisan support for the Inflation Reduction Act (IRA). The group also said competitive economics for renewable power resources mean the energy transition will continue, despite a better regulatory landscape for fossil fuels.

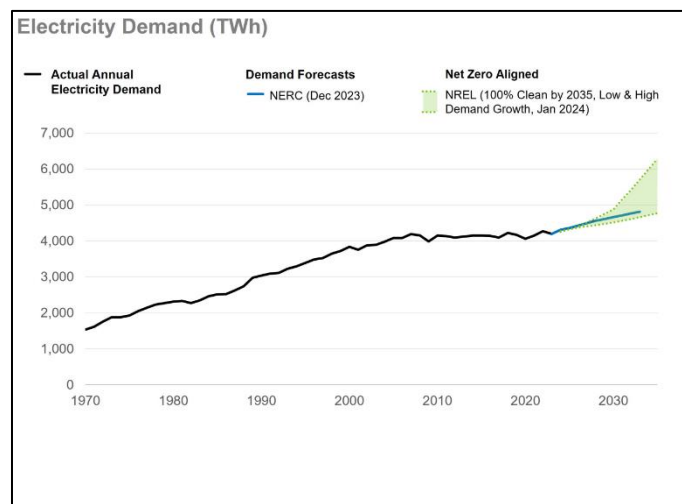
The Growth of Data Centers and Their Impact on Electricity Demand

By William Glauz

Excerpted from Power Engineering

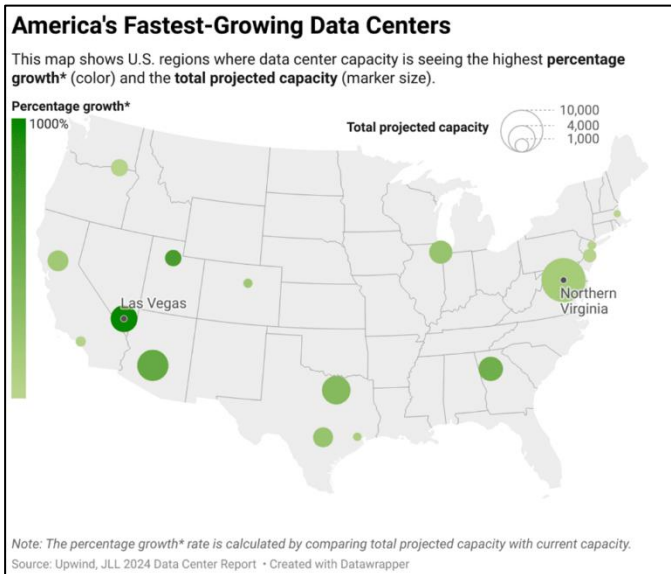
<https://www.power-eng.com/news/which-cities-are-seeing-the-highest-data-center-growth/>

A data center is a building or a dedicated space within a building or group of buildings used to house computer systems and associated equipment such as telecommunication and storage systems. Since information technology is crucial for business, data centers generally include backup equipment and infrastructure for power supply, data communication, security devices and environmental controls such as air conditioning and fire suppression. A large data center can use large amounts of electricity. In 2022 it was estimated that over 1% of electricity used globally was for data center operations, excluding energy used for cryptocurrency mining, adding another 0.4% of global electricity demand. The International Energy Agency projects that data center electricity use could double between 2022 and 2026. The large demands for electricity from data centers, including cryptocurrency mining and artificial intelligence, has also increased strain on local electric grids and increased electricity prices in some markets.



Data centers had their origin in the 1940s, when early computer systems were developing. The first boom in data centers came during the dot-com bubble of 1997-2000, when many companies needed fast internet connectivity and non-stop operation to establish a presence on the internet. Smaller companies could not manage this level of operation internally so they relied on specialized companies who would develop a large data center to assist. This included internet and cloud data centers. The United States is currently the world-wide leader in data center infrastructure, hosting 5,381 data centers as of March 2024, accounting for about 40% of the global market.

Electricity demand for data centers in the US in 2022 was about 17 GW. That is expected to double to 35 GW by 2030. In terms of electrical energy consumption, S&P Global compiled data from electric utilities that predict that annual electricity demand from data centers in the United States will rise from 185 tera-watt hours (TWh) in 2023 to 440 TWh in 2035, a 250 TWh increase, equivalent to roughly the amount of electricity consumed in California in 2022. The Electric Power Research Institute estimates that U.S. data center electricity consumption could grow to 9% of the country's generation by 2030, up from about 4% in 2023.



Electricity demand in the U.S. has been very stable over the last 15 years, primarily due to improvements in energy efficiency, a decline in domestic manufacturing and economic headwinds. However, with the increase in data center development, along with industrial electrification and electric transportation, electricity demand is expected to rise again as it did the previous four decades.

There are certain areas in the U.S. where data center growth is expected to be the greatest. These include Northern Virginia, Phoenix, Dallas, Las Vegas/Reno and Atlanta. Also some other areas of fast growing data center capacity include Salt Lake City, Chicago and Austin/San

Antonio. It is expected that data center growth will occur in Los Angeles, but not at the same rate as some of the other locations listed here.

Update on the Strategic Long Term Resource Plan

By Kenneth Silver

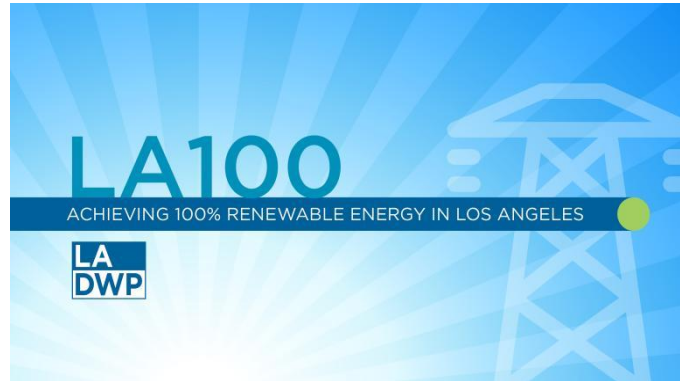
The Strategic Long Term Resource Plan (SLRTP) has been renamed the LA 100 Plan. The LA 100 Plan includes an 80% Renewable Portfolio Standard by 2030 and be 100% Carbon Free by 2035, and is used as the main roadmap for Power System planning. It contains updated input assumptions (including load projections, pricing and buildout schedules) and output metrics (including costs, emissions, reliability impacts, energy burden and rate impacts). It expands Planning from traditionally only Generation Resources to integrate Transmission and Distribution System needs. LA100 provides an iterative loop between planning for Generation, Transmission and Distribution System needs (e.g. Integrated System Planning).

LADWP Accomplishments and Updates since the Last Plan

- Proposes to invest 1) \$1.8 billion in transmission system upgrades to improve ability to import renewables; and 2) over \$1.3 billion in distribution system upgrades to improve system resilience during heat storms and other stressed-grid conditions, while preparing for system load growth and electrification.
- Has seen the development of approximately 750 MW of local solar, with a target of over 2,200 MW by 2035.
- Has achieved nearly 60% carbon-free energy with 43% renewables in 2023.
- Is forecasting nearly 66% carbon-free energy with 49% renewables for 2024.

LA100 Plan Key Takeaways

- Will acquire an additional 2000 MW of Solar co-located with Battery Storage by 2030, 4400 MW by 2035, and 7750 MW by 2045.
- Will acquire an additional 500 MW of Wind by 2030, 1150 MW by 2035, and 2900 MW by 2045.
- Will acquire 125 MW of Geothermal by 2030 and 900 MW by 2035.
- Will have 3270 MW of in-basin green hydrogen capacity by 2035.
- Demand side plans include electrification efforts for vehicles and buildings adding 71% of load growth by 2035.
- Energy Efficiency and Rooftop solar growth to save 17% of load by 2035.
- Total Cost for the LA100 Plan is estimated to add approximately \$18 Billion above the costs of meeting California's energy mandates.
- Loss of load target has been revised to once in 10-years rather than 2.4 hours/year. The new target is more stringent and in line with industry standard.
- Mid-Case Load growth projections show modest growth over time.
- Annual load is expected to increase 1.3% from 2024 to 2035, then increase to 2.6% from 2035 to 2045.
- Peak demand will increase more rapidly at 2.5% per year from 2024 to 2035 then slow to 1.6% per year from 2035 to 2045. Load growth is driven mainly by population changes and electric vehicle adoption rates.
- Increased energy efficiency and rooftop solar will offset some of the anticipated electric vehicle growth.



Planned Public Outreach

- In late January or early February 2025, a series of weekday-evening and Saturday public meetings will take place. These meetings will be both in-person and virtual. They will cover topics including Power System Overview, LADWP Overview and Recent Accomplishments, LA100 Plan Orientation, Key Considerations, LA100 Plan Preliminary and Sensitivity Results, Modeling Framework, Tradeoffs, Implementation and Considerations for Risk Factors.
- Advisory Group Meeting #7 (Outreach) in February 2025.
- Advisory Group Meeting #8 (Results #2 and Transmission Planning) in March 2025.
- Additional Public Meeting(s) in April 2025.

Field Trip to Headworks Site

By Susan Rowghani

On October 11, Louis Rubalcaba, Chris Munis, and other members of the Water System Project Management Office hosted a tour of the site of the Headworks tanks for WPA members. This site, which was the location of the Headworks Spreading Grounds, an approximately 40-acre site, is scheduled to be a major facility for the Water System.



The site was recently renamed the Tom LaBonge Headworks Water Complex that contains the two buried tanks with a total storage capacity of 110 million gallons which functionally replaced Silver Lake Reservoir. These 2 reservoirs are the largest underground water storage facility in the Western United States. The total footprint of the reservoirs is approximately 10 acres. Recently completed was a flow control facility, which has a capacity of 250 cubic feet per second. This facility allows the Water System to remove the River Supply Conduit (RSC), the only non-pressurized pipeline in the distribution system from service. This action was originally directed by the health regulators in the 1970's, but was not completed due to the difficulties in replacing the function of the RSC while still maintaining water supply.

The tanks were constructed using an alternative delivery process known as Construction Manager at Risk, where the owner, designer, and contractor collaborate together to ensure a successfully delivered project. Due to the large amount of concrete needed for the construction of each reservoir, a concrete batch plant was constructed on site, which facilitated its construction. In addition, the aggregate used in the concrete was imported from Canada in order to meet the concrete specifications.

Since the tanks are buried, this area will also be the location of a public park planted with native vegetation, to be operated by the Department of Recreation and Parks under an agreement with LADWP.

In addition to these facilities, this location is to be the home of the new Water Supply Laboratory, which is currently in design. It will also be the site of a direct potable reuse demonstration facility, which would provide advanced water purification of recycled water from the Los Angeles-Glendale Water Reclamation Plant.

A very thorough presentation was made of the history of the project and the innovations in contract delivery that have taken place through many years it took to complete the process of replacing Silver Lake Reservoir and the RSC.

Mystery History Question

Presented by Jack Feldman



On March 30, 1916, the raising of a single pole in Highland Park (pictured above) inaugurated a distribution system that within just 20 years would become the dominate electric utility business of Los Angeles.

The first power supplied to the above distribution system came from a nearby power plant in Pasadena. However, just one year later, the Los Angeles Bureau of Power and Light had developed enough electric energy from its newly constructed power plants to sell its excess energy to Pasadena using these same lines.

What major power plant constructed by LA's Bureau of Power and Light made this possible?

- A. Hoover Dam Power Plant
- B. Scattergood Power Plant
- C. Valley Steam Plant
- D. San Francisquito Canyon Power Plant
- E. Haynes Steam Plant

Bonus Points: Can you name the exact location of this intersection?

Answers on page 19, OR

Click [HERE](#) for Answer or go to our website's

[Mystery History Section](#)

GUEST SPEAKERS

Summaries by Robert Yoshimura

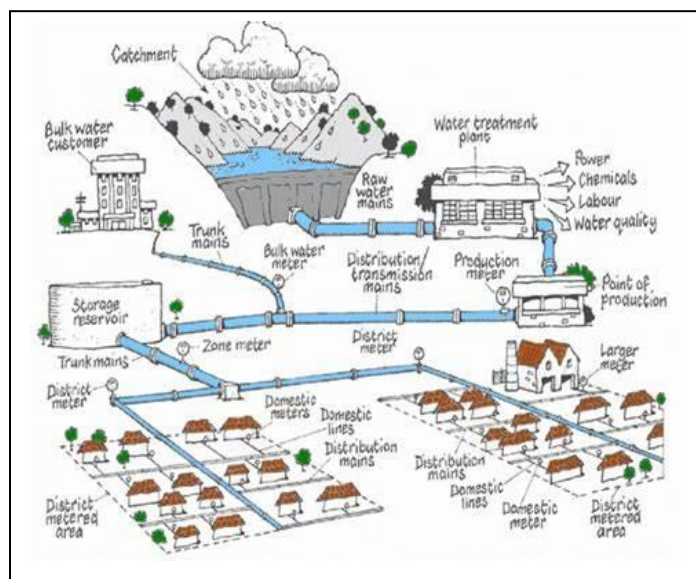
GUESTS OF THE MONTH
DECEMBER 2024

Breonia Lindsey, Director of Water Distribution Division (WDD) and Staff

UPDATE ON THE STATUS OF THE WATER DISTRIBUTION SYSTEM

Breonia Lindsey and several members of his staff attended the December 2024 meeting to provide a summary of significant accomplishments over the last ten years which have resulted in an improved water distribution system for Los Angeles. As an example, he pointed to the leak rate which was 28.5 leaks per 100 miles of pipe in 2007. Today it is 14.7 which is now significantly below the national average of 25. Furthermore, the volume percentage of leakage is about 6% of the total water supply compared to about 30% nationally.

Breonia introduced key managers involved in this presentation including Nathan Bautista, Manager of Metro Engineering; Bart King, Manager of Distribution Engineering; Hinamon Awani, Manager of Infrastructure Resiliency; and Earl Nutberger, Manager of Construction Support.



Nate Bautista began the presentation with an agenda for the day which covers a 10-year retrospective of the division including what has changed, what has improved, and what significant milestones have been achieved.

Summary of Organization. The WDD organization chart is divided into two components: 1. Construction and Maintenance which consists of the five districts (Central, Western, Harbor, East Valley, and West Valley) plus Trunk Line Construction, the Sylmar West Training Center, and the Meter & Services organizations. 2. The second component is the Engineering group which has expanded significantly to tackle a changing regulatory environment and includes Construction Support & Procurement, District Engineering, and New Business. Additionally, three new groups have been recently added to this part of the organization. They are Training Development, Trunk Line Construction Support, and Infrastructure Resiliency.

The Training Development Section is responsible for developing technical training courses and supporting the new Sylmar WEST Training Center, and for the development of emergency preparedness procedures and training. The Trunkline Construction (TLC) Support group, while not new, is greatly expanded to accommodate the growing needs of the Water System. It is responsible for the installation of trunklines 24" in diameter up to 144" including valves and appurtenances and provides engineering support in response to trunkline breaks. The TLC

group will further expand in the next five years with the addition of engineering support personnel for two additional Trunkline crews. The Infrastructure Resiliency Section is a brand-new group responsible for new technologies to assure a resilient distribution network, and to oversee the work of contractors and coordinate with third party developers.

Mainline Replacement Program. The Mainline Replacement Program is the primary focus of WDD and is necessary to sustain the viability of the distribution network. For fiscal year 24-25, WDD has established a goal of 240,000 linear feet of installed pipe. The table below depicts the goal broken down by

District. The Western District has the highest leak rate per mile of pipeline because of age and soil conditions, and thus requires a more aggressive approach to mainline replacement. To achieve the higher goal in the Western District, the other four Districts will share their engineering and construction resources to achieve the District Support 10-year Plan. In support of the plan, WDD has added three new crews as shown. Additionally, at least one crew from each District has been reallocated to the Western District.

MLR Program Goals				
		Crews	Construction	Design
District	24-25 Crews	Allocated	Linear Feet	Linear Feet
Western	7+1	13	89,000	100,000
Central	7+1	6	48,000	49,000
Harbor	4	3	28,000	29,000
East Valley	4+1	4	33,000	34,000
West Valley	6	5	42,000	43,000
Totals	31	31	240,000	255,000

WDD has identified more than 700,000 linear feet of pipe in Western District that need replacement but can only replace 89,000 feet per year. Thus, some means of prioritizing is needed. Historically, the division used a likelihood of failure model to screen high priority projects. In 2024, it added a new tool – the leak intensity heat map and merged it with the likelihood of failure map to more accurately determine the most critically needed projects.

Key Performance Indicators (KPI). WDD has historically been a goal-oriented organization and KPI's are in place to manage performance each year to assure infrastructure reliability. Four key examples of such goals are mainline replacement, anode installations, small meter replacement, and safety tours. Additionally, there are goals in place for service installations, affordable housing, and limited duration goals from the Mayor's Office to assure exceptional customer service. WDD's performance against these goals has been good. The small meter installation/replacement goal is to complete the work within 100 days, and actual performance has averaged 43 days. For large meters the goal is 140 days, and the actual performance has averaged 62 days. Meter installation goals for affordable housing are 70 and 110 days respectively for small and large meters. The actual performance has averaged 33 days and 50 days for each showing exceptional performance against the goals in these categories of work.

The Mayor's goals include a four-year mainline replacement target of 108 miles of pipeline between 1/01/2018, and 12/31/2021. The actual performance of 127 miles exceeded the target significantly. Another Mayor's goal was to install 19.3 miles of earthquake resilient pipe in the timeframe of 6/01/2016 to 12/31/2020. Again, the actual performance of 21.6 miles exceeded the target. Mainline replacement results further demonstrate the value of goal setting. For the 23/24 fiscal year, WDD exceeded its goal of installing 225,000 linear feet by more than 11,000 feet. The engineering group exceeded its goal of designing 245,000 linear feet of pipe by more than 9,000 feet. Design goals are typically higher than installation goals to give the district

crews flexibility in the projects they choose. Leak rates are inversely proportional to the miles of mainlines replaced. WDD's progress in replacing mainlines has resulted in a decline in leak rates from 28.4 leaks per 100 miles of pipe in 2007 to 14.7 today. WDD management attributes this success to both the goal setting and the new prioritization process for pipe replacement.

Fiscal Policy, Economies of Scale & Interagency Coordination. WDD uses the Responsible Cost Accounting System (RCAS) to track costs at the project level for fiscal accountability. Data from RCAS is then used to evaluate unit costs for different types of work including size specific service installations, size specific mainline installations, and fire hydrant replacements. This data is reviewed each quarter to enable troubleshooting where cost performance is atypical.

WDD has instituted recurring meetings with key external stakeholders to seek mutually beneficial economies of scale. WDD now meets regularly with, among others, the Bureau of Street Services (StreetsLA), the Department of Transportation (DOT), and the Bureau of Engineering. One example of the benefits of this type of coordination is the savings accrued by avoiding StreetsLA's Street Damage Restoration Fee by scheduling work within 23 months of their planned resurfacing projects. This strategy will save more than \$3 million in just the current fiscal year. As another example, coordination with the DOT has led to an agreement to use standard temporary traffic control plans thus avoiding the need to prepare project specific plans for each project. This has resulted in savings of \$200,000 per year.

The Future of the Water Distribution Division. One of the most critical challenges facing WDD in the immediate future is the preparation for the 2028 Olympic Games in Los Angeles. WDD has identified specific venues and developed a master plan for mainline replacements and other critical work ahead of the games to assure continued water service to those locations. Another future goal under the guidance of the new Infrastructure Resiliency Section is the development of a Seismic Resilient Pipe Network to assure post-earthquake service, particularly to critical customers such as hospitals, fire and police stations, schools, power facilities, and sanitation facilities. In 2021, a pilot framework was developed in conjunction with USC's Center for Artificial Intelligence in Society for one service zone within the distribution network. Such a framework will evolve into detailed plans for every service zone and will then be implemented to create the desired level of seismic resiliency.

**Dave Hanson, Senior Assistant General Manager – Power
Jason Rondou, Power System Chief of Staff**

UPDATE ON POWER SYSTEM ISSUES

Dave Hanson and Jason Rondou led a round-table discussion of current topics of interest in the Power System and answered numerous questions from the Board members.

Dave began with his perspectives on the recently hired new CEO Janisse Quinones. The news announcing a nation-wide search for a new CEO was met with some trepidation by current managers because outsiders from the private sector haven't always fit in well at LADWP because of its political oversight, hiring and purchasing processes, and a unique culture. However, Janisse has made an immediate and positive impression on Dave and other members of the management team. Dave described her as a "breath of fresh air" because her leadership skills, knowledge, and her focus on challenging existing processes, insisting on transparency, and gaining back customer trust, is precisely what is needed at this time. LADWP does not have a good reputation for transparency and Janisse is targeting a significant improvement in that area.

Dave briefly explained the changes in organizational structure made by Janisse. She has created two Chief of Staff positions within her office – one for each system. Evelyn Cortez-Davis is the Chief of Staff for the Water System. Jason Rondou is the Chief of Staff for the Power System. Dave is the organizational head of the Power System and will coordinate closely with Jason on all issues related to Power. Jason has an engineering



background that complements Dave's Maintenance and Construction experience. Both report directly to Janisse. A study of the Power System's business model by the consulting firm Korn Ferry is currently ongoing and will recommend further changes to the organizational structure. Thus, the existing position of Chief Operating Officer will remain vacant pending the outcome of that study.

Regarding lack of transparency and customer trust, Board members raised concerns about the current power bill structure that consists mostly of costs that are passed through – such as the cost of fuel, purchased power, etc. Such pass-throughs can result in significant cost increases for the customer on a month-to-month basis. Many customers perceive that LADWP is imposing de facto rate increases without approval by the City Council. No explanation for those pass-throughs is provided on the bill, and furthermore, one Board member's multiple attempts to get such an explanation have been ignored. Because the water charges on the same bill include an explanation of pass-throughs, it seems illogical not to do the same for power costs. Dave offered to contact the Customer Service Division and arrange for a representative to speak directly to this Board regarding this peculiar strategy, and what, if anything, they are

planning to do about it. The W&PA Board members agree that the bill needs to be restructured to resolve this problem.

Since the completion of the LA 100 study regarding the transition of the power grid to 100% renewable energy, this Board has heard numerous discussions about what improvements are needed to the distribution network to accommodate the transition. A voltage conversion from 4.8 kV to 12 kV seemed to be the early direction favored by the Power System. Dave clarified that there will be no such voltage conversion. Instead, a second distribution system operating at 12 kV will be added and the 4.8 kV system will be retained. The current system is overloaded as is, and the significant additional load from Electric Vehicles (EVs) and building electrification must be accommodated, so a second system superimposed upon the first appears to be the most efficient solution. Construction will begin in two years on new 12 kV distribution systems in both the city and valley to pilot the distinct types of 12 kV systems and automation strategies. Subsequently, additional distribution stations and systems will be constructed as needed to alleviate the overload conditions and accommodate future growth in customer demand.

The anticipated proliferation of EVs in the coming years will be a significant driver of power demand growth and will present a particular challenge during heat storms in the summer. One Board member reported that as many as 1.6 million EVs will ultimately be in use in Los Angeles. The proposed distribution system upgrades will expand capacity as needed to accommodate that growth. Additionally, the upcoming Olympic Games venues and public transportation to and from them will be carbon free and will thus require 1,300 to 1,500 electric buses to accommodate the expected visitors and participants. How to charge those buses will be another challenge for the power system to resolve.

The issue of the cost of the above distribution improvements remains unclear, because this Board had previously heard from management that distribution costs were not included in the current cost estimate for the project. Jason Rondou thought they were and will check with appropriate staff and provide an answer. He also reported that staff working on an update to the original LA 100 study have broken-down costs in more detail and that distribution upgrades should be a part of their work. Public workshops regarding the LA 100 update are being planned, and a complete cost break-down will be part of the presentation to be made.

As more renewable energy sources are added, existing generation sources will be shut down. As a result, the rotating inertia provided by turbine generators will be lost, and a solution to that problem will have to be developed. The Power System has recently experienced voltage insufficiencies which has never been a problem in the past before solar power became a significant part of the energy portfolio.

The Department is aware of a growing problem with net metering, which now costs them between \$200 million and \$250 million per year in lost revenue and because it is forced to pay customers with rooftop solar units for excess energy they produce at a retail price. Those costs are recovered from customers who do not have rooftop solar via rate increases, which results in subsidization of customers who do have rooftop solar. Jason Rondou indicated that a major restructuring of net metering is needed with as little harm as possible to existing beneficiaries of net metering.

Hiring staff for the expanded distribution system will be another significant challenge. Linemen are a particular focus because LADWP has been losing them to other utilities once they are trained. A new union contract has been signed that provides for better salaries and has resulted in some of those linemen returning to the Department. The implementation of an expedited hiring process for linemen and the end of Covid-era vaccine mandates should further improve the outlook in this area.

In response to a question from a Board member regarding LADWP's plans to make needed upgrades to the Information Technology systems, Dave responded that Janisse has a strong IT background and has already incorporated modern technologies such as Microsoft Team and is considering others as well. The Chief Information Officer's position is currently vacant, and Janisse is working to fill that position soon.



Mystery History Answer

Answer: D) San Francisquito Canyon Power Plant

The San Francisquito Canyon Power Plant (or Power Plant No. 1) was a pivotal part of the Bureau's early infrastructure, providing a significant energy supply thanks to hydroelectric power from the Los Angeles Aqueduct.

The location of this intersection is: Pasadena Avenue (now N. Figueroa Street) and Piedmont Avenue.

More information at:

[Mystery History Section](#) OR


Click [HERE](#)

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2025 CALENDAR

GUEST OF THE MONTH

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Room 1471, JFB and Via
Zoom, Check your WPA
Emails for the Zoom Link



EVELYN CORTEZ-DAVIS CHIEF OF STAFF, WATER LADWP	JANUARY 8, 2025 Update on Status of Major Water Initiatives & Org Align
UPDATE FROM FINANCIAL SERVICES ORGANIZATION LADWP	FEBRUARY 8, 2025 10:00 am, JFB Conference Ctr Board Member Elections
HAIK MOVSERIAN (INVITED) SPRVSR OF PWR DIST PLNG LADWP	MARCH 13, 2025 Status of Power Distribution System Upgrades
TO BE ANNOUNCED	APRIL 9, 2025

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