



WATER & POWER  
ASSOCIATES, INC.

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OCTOBER 2026

# NEWSLETTER



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## Conflict on the Colorado River

By Jerry Gewe

The Colorado River basin and the entire southwest are in the midst of a 26-year long drought that has reduced the water storage in both Lakes Mead and Powell by 70%. Furthermore, the elevation of Lake Mead has declined by 160 feet, and Lake Powell has declined more than 162 feet since 2000. Both reservoirs are now at record lows. Voluntary attempts to negotiate agreements to reduce water usage by the seven basin states that rely on the Colorado River have occurred over the last several years but failed to result in a plan.

Thus, allocation of the water from the Colorado River is once again in dispute. Earlier this year, the Bureau of Reclamation (Bureau) believed that they had an agreement with the states for the reduced water allocations and on August 21, 2026 issued operating guidelines on that basis. Those guidelines established an operational plan for the next two years and a process for developing operational decisions for the next 10 years. However, on August 24, the State of Nevada filed a lawsuit against the plan. Subsequently, the Central Arizona Project, the largest user of water in Arizona indicated they were prepared to also take legal action over the guidelines.



Under the Colorado River Compact of 1922, the upper Basin States (Colorado, New Mexico, Utah, Wyoming), are entitled to 7.5 million Acre Feet per Year (AFY) of Water. The Lower Basin States (Arizona, California, and Nevada) are also entitled to 7.5 million AFY. This amount is apportioned to Arizona at 2.8 million AFY; California at 4.4 million AFY; and Nevada at 0.3 million AFY. In addition, Mexico is entitled to 1.5 million AFY.

The problem is that these allocations, which were established under the understanding of the river's hydrology more than 100 years ago, overestimated the water that is currently available. Storage in the reservoirs has been falling substantially and this in turn threatens the substantial hydropower generation from Lake Mead and Lake Powell.

(Continued on page 2)



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(Colorado River, Continued from Page 1)

The upper Basin states contend that because their usage has been within their allocation they should not be required to take any cuts. The lower basin states point to the extensive actions they have taken to conserve water and argue that the upper basin states should share in the cuts.

In order to allow for a long-term solution to be developed the Bureau proposed that the lower basin accept cuts for the next two years while a long-term solution is being established. The Bureau's operating plan for next the two years thus called for the following cuts:

|            |                   |
|------------|-------------------|
| Arizona    | 220,000 Acre-Feet |
| California | 110,000 Acre-Feet |
| Nevada     | 50,000 Acre-Feet  |

While this had received support from the parties, Nevada's action has made everything uncertain. Possible outcomes range from operating under the proposed Bureau Plan; using the existing allocations under the Compact, (which would reduce storage to a level substantially impacting the hydro generation); to the states negotiating an entirely new plan.

One thing is certain. The current situation cannot continue as there is not enough water to meet the desires of all the parties, and allowing the water storage in the lakes to drop much below the current levels would be disastrous.

## The San Fernando Groundwater Basin and Los Angeles' Water Supply

By Jerry Gewe

The San Fernando Ground Water Basin is one of Los Angeles' most valuable assets. It was one of the earliest sources of water for Los Angeles and remains critical today. At the end of a 23 year long legal battle ending on January 29, 1979, Los Angeles' rights to all the native water as well as waters imported by the City to the basin were confirmed. This gives Los Angeles access to approximately 87,000 Acre Feet of water on an annual basis, and the ability to use more in emergencies. This is about 16% of the city's current water demands.

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# President's Column

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Dear Associates:

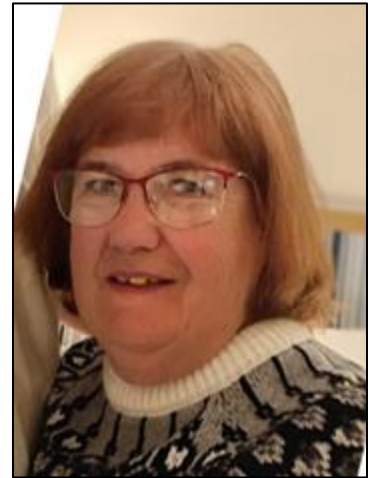
So, even if the thermometer doesn't seem to know it, Summer is fading and Fall is upon us. All you have to do is look at the Halloween (and dare I say Christmas) displays going up in shops. With temperatures this high for this long, you would think there would be record energy sales; but that's not the case. According to our August speaker, Arash Saidi, energy sales have evened out as more home solar is in place.

Another sign of summer is water main (trunkline) breaks. Yes, there was a large, older trunkline break in the Hollywood area. Hot weather doesn't break mains, per se, but older infrastructure is susceptible to failure with any increase in stress.

During the summer Council break, our legislative committee met with three council offices: Councilmembers Blumenfield and McOsker, and staff from Councilmember Hernandez's office. We appreciate their time, offer our assistance, and look forward to continuing the conversation.

Lots is going on this Fall and you'll read about some interesting and timely topics in this newsletter: Meeting California Solar Goals, Scattergood Modernization, US Renewable Energy Market Trends, Plug In Solar Laws, Colorado River and State Water Project updates, San Fernando Valley Groundwater, our field trip to the Port of Los Angeles, Desalination in Hawaii, and of course speaker summaries and our Halloween Mystery History.

Be Safe,



*Julie Spacht, President*

However, the use of the basin has been substantially restricted by contaminants, which were allowed to enter the basin in the 1930's through 50's, when the detrimental health impact from these chemicals was not understood. In the past 3 years, use of water from the basin was reduced to an average of 8,000 acre-feet per year, (10% of entitlement) primarily due to the presence of these contaminants.



In order to restore the historic capacity and to remove the contaminants from the water in the basin, LADWP is in the process of installing groundwater treatment facilities in the San Fernando Valley. The North Hollywood Central facility along with the North Hollywood West facility became fully operational this August. A third facility, the Tujunga Well Field Facility is scheduled to come on-line- in late 2027.

When all of these facilities are fully operational, they will be able to treat up to 100,000 acre-feet/year which is in excess of Los Angeles annual rights in the San Fernando Basin. However, the 1979 Upper Los Angeles River Area Judgment allows groundwater to be stored within the basin when LADWP pumps less than its annual water right and stored credits may be pumped in future years to supplement the City's water supply. Additionally, the direct spreading or injection of both imported surface water and recycled water for groundwater replenishment increases the water rights by an equal amount. Los Angeles also has the right to pump over the annual safe yield, subject to paying it back. As of October 2020, the city had accrued 675,731 AF of stored water credits in the San Fernando Basin. (Note: The water rights are actually in excess of what could be utilized on a long-term basis, due to changes in hydrology that have taken place since the studies underlying the adjudication were made in the 1980's.)

While Los Angeles has the right to utilize this quantity of water, its ability to do so is currently limited. LADWP's main focus over the past five years has been constructing the large, advanced treatment facilities. While the water quality issue is being addressed by the treatment facilities, access to the groundwater is restricted by the current well capacity and piping limitations. Long periods between operation of groundwater production wells may have caused conditions to deteriorate. Moving forward, maintenance and repair of wells will be critical to sustaining the groundwater clean-up.

Many of these wells are scheduled to be upgraded or replaced. In some cases, new wells may need to be installed given the age and condition of the original wells. Piping Improvements are also required to get the water to locations that best support the existing water demands. Much of the transmission and distribution system was installed post-World War II and modifications are needed to optimize the system to meet current demands.

Given the reductions that are occurring to State Water Project and Colorado River supplies over the next few years, groundwater from the San Fernando Basin will provide a significant offsetting water source for meeting Los Angeles' needs in the next draught. If this is required, the wells and piping can be installed on a much faster track than the treatment facilities, which was a multi-year effort.



## **Update on Scattergood Generating Station (SGS) Modernization Project**

*By William Glauz*

On August 4, 2026, the Los Angeles City Council rejected an environmental appeal against the Scattergood Modernization Project by a 10-3 vote, allowing LADWP to continue updating SGS to become a modern, efficient, environmentally friendly and hydrogen-ready generating plant.

In our January 2026 Newsletter, we reported on the Board of Water and Power Commissioners October 2025 approval of the Final Environmental Impact Report (EIR) for the modernization of the Scattergood Generating Station. The \$800 million modernization project includes:

1. The permanent shutdown and removal from service of SGS Units 1 and 2, which are conventional 1950s-era natural-gas-fired steam-boiler turbine generators.
2. Installation of a modern, rapid-response 346 MW gross (333 MW net) combined cycle plant that pairs a combustion turbine generator and a steam turbine generator to operate in tandem, significantly increasing fuel efficiency.
3. The new combustion turbines will be designed to operate on a fuel mixture of natural gas blended with a minimum of 30% green hydrogen by volume upon commercial deployment, with the long-term capability to eventually scale up to 100% hydrogen.
4. Ocean water cooling for the plant will be eliminated and replaced with an air-cooled condenser and a wet-surface air cooler for thermal regulation.
5. Industrial gas compressors to manage fuel injection.
6. Major switchyard upgrades to safely distribute the generated electricity into the local grid.

Shortly after the Board's approval of the Final EIR a coalition of six prominent environmental justice and advocacy groups, including the Sierra Club, Food & Water Watch, Communities for a Better Environment, Los Angeles Waterkeeper, Physicians for Social Responsibility Los Angeles and the Center for Biological Diversity, filed an appeal with the Los Angeles City Clerk. The groups filed the appeal pursuant to California Public Resources Code Section 21151(c),

which allows local agency EIR certifications to be appealed directly to the city's elected governing body (the Los Angeles City Council).

The primary concerns in the appeal focused on the following key areas:

1. "Piecemealing" the Environmental Review. The coalition argued that LADWP violated the California Environmental Quality Act (CEQA) by improperly isolating the power plant from the broader regional hydrogen infrastructure needed to support it. The EIR admitted that the green hydrogen supply system had not yet been identified. Appellants argued that the environmental and safety impacts of hydrogen production, storage, and long-distance pipeline delivery were completely omitted from public review.
2. "Greenwashing" and Continued Fossil-Fuel Reliance. Activists pointed out that despite the project's name, the EIR did not legally require the plant to burn green hydrogen. It could theoretically run on 100% natural gas indefinitely. Critics argued that spending nearly a billion dollars on a plant that relies heavily on a methane gas blend (at least 70% by volume) would lock the city into fossil-fuel infrastructure for decades, directly undermining LA's target of a 100% carbon-free energy grid by 2035.
3. Faulty Environmental Baseline Calculations. The appellants contested how LADWP calculated baseline air pollution. They argued the EIR used emissions from current plant operations to compare against the new project. However, because the existing Units 1 and 2 were legally mandated to shut down anyway, critics argued the true baseline should have been zero emissions - meaning the new plant represents a net increase in long-term local air pollution.
4. Severe Safety and Environmental Risks. The groups raised alarms over the severe hazards of handling hydrogen—which is highly volatile, prone to leak, and carries higher explosion risks than natural gas—especially near residential neighborhoods and disadvantaged communities.
5. Air Pollution (NOx). Burning a hydrogen blend can increase emissions of Nitrogen Oxides, a major component of smog that worsens respiratory illnesses like asthma.
6. High Water Use: Opponents highlighted that green hydrogen is an incredibly water-intensive technology, relying heavily on electrolysis. They argued that diverting massive amounts of water during a climate crisis was a misuse of local resources.



The Los Angeles Department of Water and Power (LADWP) responded to the coalition's environmental appeals by formally defending the completeness of its Environmental Impact Report (EIR) and emphasizing grid reliability. LADWP presented its official arguments in staff reports and committee responses, countering each of the core claims:

1. Separation of hydrogen infrastructure is not "piecemealing" separate projects. LADWP argued that omitting the broader hydrogen production, delivery, and storage systems

from the EIR did not violate CEQA. LADWP maintained that because a green hydrogen supply network does not yet exist and its future details are unknown, any attempt to analyze it now would be speculative. LADWP clarified that it will act strictly as a customer purchasing hydrogen, not the builder of the infrastructure. It promised that the green hydrogen supply chain will undergo its own separate environmental review and approval process once actionable data becomes available.

2. Modernization is critical for local grid reliability. LADWP countered the "greenwashing" claims by emphasizing that the facility provides a crucial safety net. The modern Combined-Cycle Generation System acts as a dependable, rapid-response local power source that can scale up immediately to prevent blackouts during peak demand or emergency disruptions. LADWP emphasized that the plant directly safeguards the energy stability of the immediate Scattergood service area, which includes critical hubs like Los Angeles International Airport and the Hyperion Water Reclamation Plant.
3. The Project is a "First Step" toward 100% Clean Energy. Instead of locking in fossil-fuel reliance, LADWP positioned the retrofit as a necessary bridge toward the city's mandate for 100% carbon-free energy by 2035. Replacing the 1950s conventional steam boilers with modern, high-efficiency turbines will reduce greenhouse gas emissions compared to the status quo, even while utilizing a 70% natural gas and 30% hydrogen blend during initial deployment.
4. Intent to move forward despite lost funding. When the project lost roughly \$100 million in expected federal grant funding through the ARCHES hydrogen hub initiative, LADWP responded by stating that the project remains financially viable. The utility confirmed it would press on and fully fund the modernization through its own dedicated Power Fund.



Unit 2, one of the two original 1950s-era General Electric gas steam generators cooled with Pacific Ocean water and set to be phased out by 2029 at the Scattergood Generating Station in Los Angeles, March 17, 2022.

(Jay L. Clendenin / Los Angeles Times)

These counterarguments ultimately satisfied the LA City Council's Energy & Environment

Committee who voted on March 5, 2026 recommending that full Council reject the appeal. Then on August 4, 2026, the full Council voted 10-3 to reject the environmental appeals and clear the project for construction.

Following the City Council's eventual rejection of that administrative appeal, the environmental groups escalated the matter by filing a formal lawsuit/petition for writ of mandate in court against the City of Los Angeles and LADWP on August 31, 2026.

LADWP is currently soliciting bids under RFP Ref: 90815R1 for a Progressive-Design-Build (PDB) contract structure. A PDB contract, meaning a single contractor or consortium, will handle the final design, engineering, procurement, and site construction management.

The RFP was initially issued in late 2025, but then re-issued for re-bid on July 2, 2026, with proposals due by September 30, 2026.

The scope outlined in the RFP requires the contractor to safely deliver the 346 MW gross combined-cycle power system capable of running on at least 30% green hydrogen by its commercial operation date of December 31, 2029.

We will continue to monitor the progress of this important project.

## El Niño Update

By Julie Spacht

The National Oceanic and Atmospheric Administration (NOAA) has updated El Niño conditions forecasting a 90 percent chance of very strong El Niño conditions for the Northern Hemisphere fall and winter of 2026-27. The outstanding question is just how far south the jet stream will move. The location of the jet stream will determine how much of the typical Northwestern rain will move down into the Sierras.

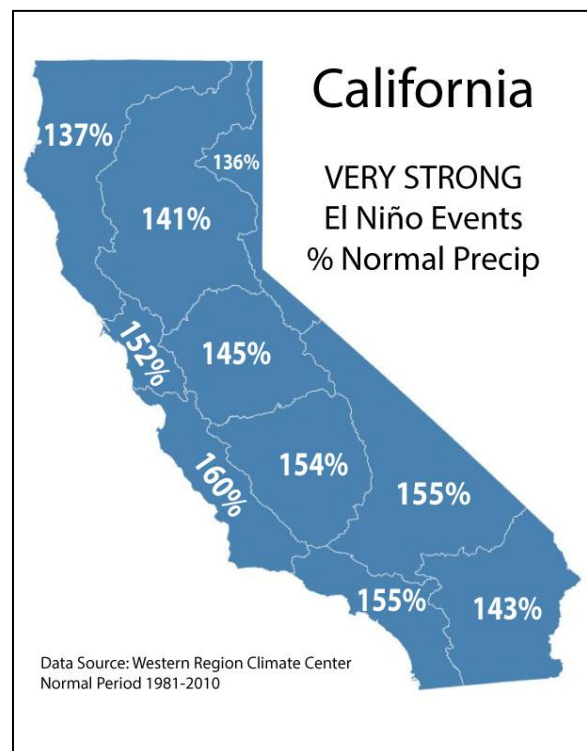
Equatorial sea surface temperatures are above average across the east central and eastern Pacific Ocean. The atmospheric circulation anomalies over the equatorial Pacific Ocean are consistent with El Niño. NOAA declares an El Niño when temperatures in the equatorial Pacific are 0.5°C (0.9°F) above average for several consecutive months. As of August 2026, National Oceanic and Atmospheric Administration (NOAA) issued an advisory that ocean temperatures are now 2.0°C (3.6°F) above average and there is “a greater than 90% chance of a very strong event during the Northern Hemisphere fall and winter 2026-27.”

Historically, strong El Niño events often bring increased precipitation to California, especially in the southern and central parts of the state. This graphic shows a 30-year precipitation comparison between Very Strong El Niño years and a normal year.

Warmer water reduces the typical East West trade wind pattern. In turn, this reduces the normal upwelling of colder nutrient rich deeper water. This greatly affects sea life and their normal feeding grounds.

[https://www.cpc.ncep.noaa.gov/products/analysis\\_monitoring/enso\\_advisory/ensodisc.shtml](https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ensodisc.shtml)

<https://www.gqweather.com/caenso/caelnino.html>



### How you can prepare for an El Niño event year.

- ✓ Check your home. Trim trees to allow wind to blow through them rather than catching and buffeting against the wind. Strong winds and saturated soil increase incidence of trees falling. Keep roof gutters and storm drains clean and clear.
- ✓ Be prepared for power outages with spare batteries. Keep phones charged, gas tanks full and eVs charged. Remember, outdoor solar lights can be used for indoor illumination. Handle candles safely if you must use them.
- ✓ Roads may be flooded or impassable for a time. Be sure to have adequate supplies of medicine and other emergency supplies on hand. For those dependent on medical electrical appliances such as oxygen concentrators, develop a plan for an extended power outage.
- ✓ Do not use unapproved heating devices including charcoal burners indoors. This can result in fire and or carbon monoxide poisoning.
- ✓ Meet your neighbors. Be aware of emergency alerts.
- ✓ Check for lot drainage. Plan for sandbags to protect vulnerable places such as garage doors. Clean and check sump pumps that may carry water away from structures.
- ✓ Capture rainwater for irrigation- plants love it!
- ✓ Check Slope stability. Ensure water can move away quickly avoiding slope saturation.
- ✓ After a wet season, strong Spring growth may follow. Flammable grasses and other vegetation may grow more thickly raising fire threat.

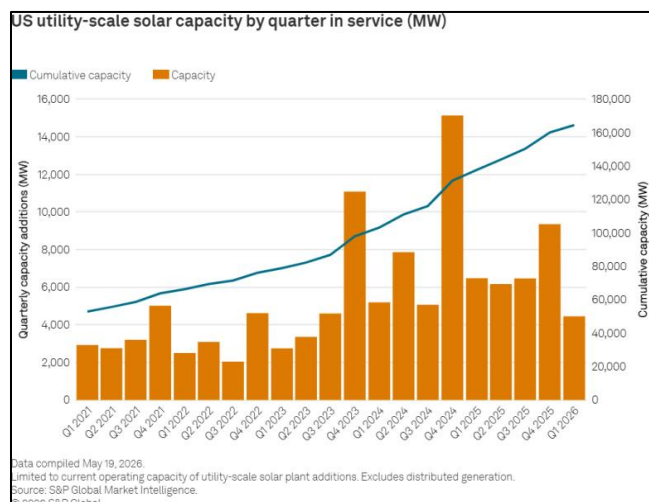
## US Renewable Energy Market Trends

S&P Global Article Summarized by Saif Mogri

### Solar Outlook

US solar installations slowed significantly in the first quarter of 2026, reflecting the impacts of sweeping federal policy changes over the past year on the country's largest source of new generating capacity. Developers added almost 4.5 gigawatts of utility-scale solar capacity in the first quarter, down 31.3% year over year, according to S&P Global Market Intelligence data. Cumulative capacity reached roughly 164.5 GW, up 19.5% from a year ago.

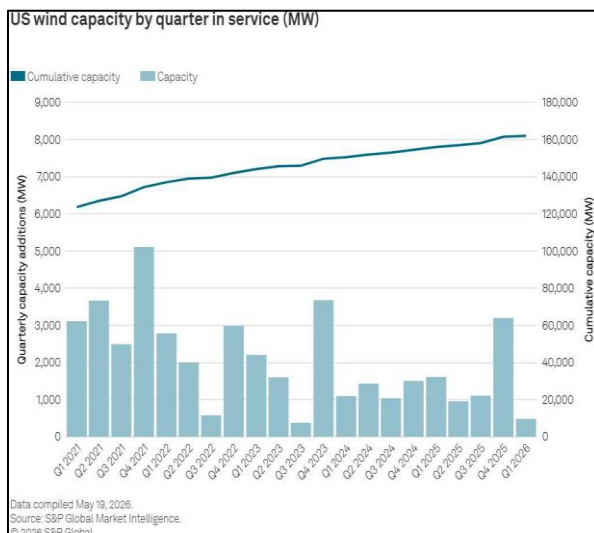
Solar plays a "central role" in the developer's US portfolio, "driven by strong demand for reliable, cost-competitive power that can be brought online relatively quickly. At the same time, projects are increasingly paired with storage, which enhances flexibility and allows solar to better align with grid and customer needs.



## Wind Power

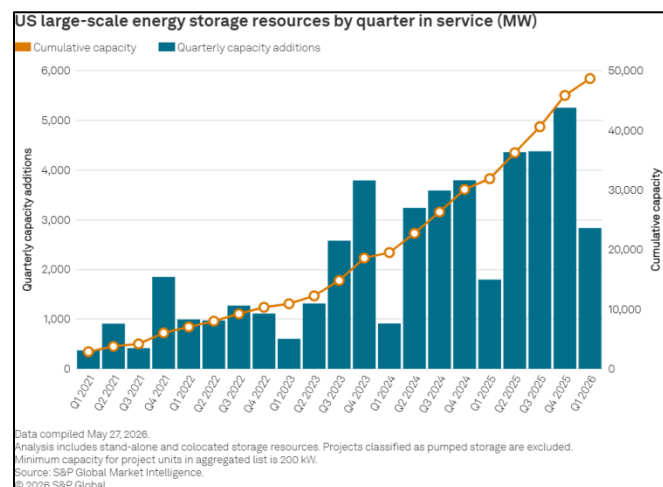
US wind power developers stumbled into 2026 with their lowest first-quarter capacity additions this decade as market, regulatory and legal headwinds collided. Developers added 482 megawatts of large-scale wind capacity in the first quarter, down from 1,609 MW a year earlier and 3,197 MW in the fourth quarter of 2025, according to S&P Global Market Intelligence data. That marked the slowest first quarter for new wind power since 2018, the data shows.

The slow first quarter is giving way to a strong second quarter, however, fueled by Pattern Energy Group LLC's massive SunZia complex, which became operational in May. Located in New Mexico, it consists of the approximately 2,400-MW SunZia Wind South and the 1,100-MW SunZia Wind North projects. The SunZia project also includes about 550 miles of high-voltage direct-current transmission lines that allow the wind-generated power to be delivered to end-use customers in California.



## Battery Storage

US energy storage developers charged into 2026, adding more capacity in the first three months than in any previous first quarter. Developers completed 41 new facilities or major project phases in the first quarter, combining for over 2.8 gigawatts of battery power capacity, according to S&P Global Market Intelligence data. The first-quarter capacity additions rose 58% compared with a year earlier but were down 46% from the record fourth quarter of 2025.



The US battery storage rollout is following the addition of large volumes of solar and wind capacity, in areas where battery system operators can make money by charging on lower wholesale power prices during off-peak periods of high renewable generation and discharging during peak demand in the late afternoon and evening.

Lithium-ion battery systems storing energy for up to four hours continue to dominate the expanding market, which has been supercharged by data center-driven demand for utility-scale and large behind-the-meter projects.

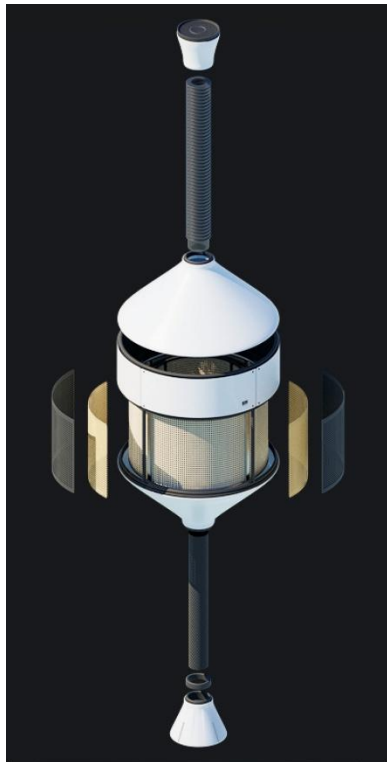
# A New Water Source for Kona: My Experience with OceanWell: The Technology

By Jeff Bray

In the July newsletter, we described the pipes and pumps needed to connect the OceanWell plant to the county water system in Kona, Hawaii. For this newsletter, we turn to the technology itself — how it works, how it protects the ocean, and why it costs less to build and run than traditional desalination.

A quick reminder. In Kona, a ban on drilling new wells — public or private — is still in place, with no end in sight. At the same time, the cost of drilling wells 1,000 to 1,600 feet deep through volcanic rock has risen sharply. Together, these conditions have opened the door to a serious conversation about desalination.

Traditional desalination usually takes place at a large plant on shore. It is expensive to build and run, uses a great deal of electricity, and carries real risks to the ocean. The basic process is simple. The plant draws in two gallons of seawater, then pressurizes them to about 800 pounds per square inch to force the water through filters called reverse-osmosis (RO) membranes. The result is one gallon of clean drinking water and one gallon of brine — water twice as salty as the sea. That brine is discharged back into the ocean, where it can smother marine life near the outfall. The intake is a second hazard, pulling in and killing fish larvae and plankton.



OceanWell turns this approach on its head. Instead of a plant on shore, the company places its equipment on the ocean floor, roughly 1,300 to 1,600 feet down. At that depth, the surrounding water already presses in with hundreds of pounds of pressure — much of the force a surface plant has to create with pumps. So rather than pumping seawater up and pressurizing it, OceanWell pumps only the finished fresh water to shore. This creates a low pressure inside the OceanWell module, which then allows the ocean's own pressure to force itself through the RO membrane. The result is the same clean water, with far less electricity. OceanWell reports it uses about 40% less energy than traditional desalination.

That single design choice leads to a chain of benefits for the ocean. OceanWell's intake, called LifeSafe™, draws water slowly enough to avoid trapping and killing marine life. There is no salty plume, because the leftover concentrate is much closer to the salinity of seawater and disperses instead of settling on the sea floor. And because the equipment rests on the bottom, there is no large plant on the coast — the water farms, as OceanWell calls them, are effectively invisible from shore.

The deep water helps in other ways as well. It is cold and clean, well below the sunlit zone where algae grow, so it needs less treatment before use. Operating at depth also shields the system from storms, floods, and algae blooms, keeping the supply steady. And because the farms are modular, capacity can be added as demand grows.

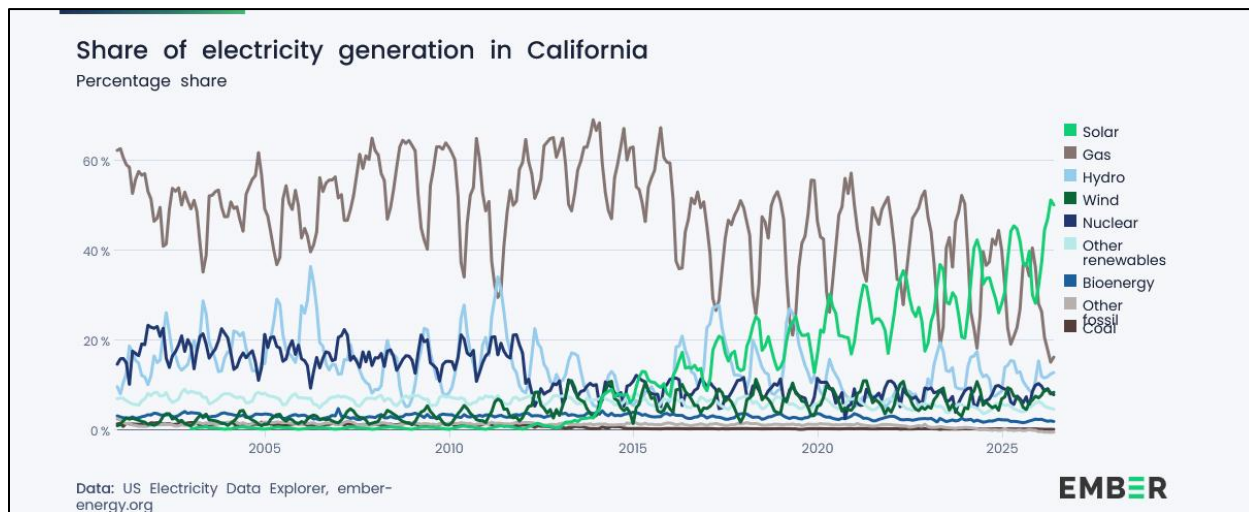
All of this holds costs down. Using less power is the largest saving, but avoiding a large shore plant, heavy treatment, and brine-disposal systems also makes the project cheaper to build. That is how OceanWell can aim for a price close to what Kona already pays for water — drawn from a source that never runs dry and never draws down the island's groundwater.

California environmental groups, notoriously hostile to traditional desalination, like the reduction in brine salinity, the increased protection of marine life, less shoreline intrusion and the lower energy consumption. They are interested in OceanWell's new approach and they are officially neutral until the technology delivers as designed, which OceanWell is in the process of proving point by point in their lab and open water testing.

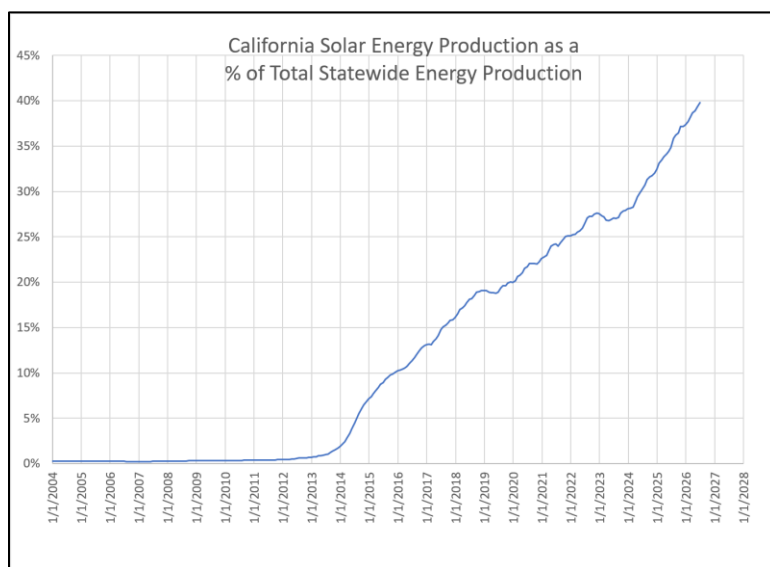
## Another Solar Energy Milestone in California

By William Glauz

For the first time, electricity generation in the State of California was primarily provided by solar energy in the month of May 2026. This isn't just a first for California, it is the first time solar energy has provided more than 50% of electricity for any major economy in the entire world. The country of Hungary comes in a close second after producing 47% of the country's electricity from solar in June of 2025, though it has a far smaller gross domestic product.



Solar energy production in California has steadily increased from less than 2TWh in 2012 to over 90TWh in the past 12 months. This annual rate of increase in California is about 7 TWh per year. The month of May is a very good month for solar generation, while the total generation required for the month has not yet reached its summer peak, but still, this is a significant milestone to achieve over 50% of energy production for the month. In terms of annual energy production, solar energy has increased from less than 1% of energy produced in 2012 to almost 40% today. Also, for the first time, Californians used more solar than natural gas during the first half of 2026.



One of the primary drivers of this significant increase in solar energy production has been the installation of batteries to allow solar energy to be made available during the hours when demand is high but solar energy production is reduced. California now has more than 21,000 MW of battery energy storage. California's battery storage fleet is a national leader not only due to total capacity, but also because of

the duration of energy it can deliver. While Texas has a similar amount of total installed battery capacity, its systems are designed to provide shorter duration discharges, typically two hours or less. California's fleet is dominated by four-hour duration battery systems, so it can deliver stored energy for approximately twice as long as Texas's fleet.



# Update on Bay-Delta Conveyance Project

By Jerry Gewe

Progress continues, although slowly, on the Bay-Delta Project. While Governor Newsom recently stated, “We are closer than ever to seeing this important piece of infrastructure completed.”, it is still far from complete. Big obstacles still loom including court rulings that have upended California’s financing plans, critical water rights decisions still to come from state regulators, and funding decisions from water agencies that have yet to decide whether the tunnel’s water will be worth the cost.

On September 2 and 3, the California Water Resources Control Board held public hearings on the Department of Water Resources’ request to add two new State Water Project diversion points to support the tunnel project. Northern California counties and environmental advocates strongly oppose the request.

Governor Newsom intended to get legislative action advancing the project approved by the legislature by the end of this term but had to give up as the votes were not there.

MWD, while continuing to support the project, both politically and financially, is looking at a range of other options for sustaining the reliability of their water supply including Sites Reservoir, Pure Water- Southern California, and local projects.

The long-term viability of the project is probably most dependent upon the views of the next governor, as without the strong support of the previous two governors the project would not have gotten this far, and without that level of support it will likely be put on the back burner.



## Tentative Current Schedule of Activities & Approvals

|                     |                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------|
| October 28-29, 2026 | State Board Hearing to consider formal adoption and final approval of Bay Delta Plan Update |
| October 2026        | Water Rights Change Petitions                                                               |
| Late 2026           | Delta Plan Certification of Consistency                                                     |
| Mid to Late 2026    | Federal Clearances & Permits                                                                |
| Late 2026           | Basis of Design Report                                                                      |

# Plug In Solar Laws in California and Utah

By Saif Mogri

(Information Obtained from Chat GPT)

California's Plug In solar law (SB868) was passed by the State Legislature on August 26, 2026.

- SB 868, the Plug and Play Solar Act, has passed the California Legislature and is headed to Gov. Newsom.
- It would allow portable solar systems up to 1,200 watts to plug into a normal household outlet, rather than requiring the traditional utility interconnection process.
- The systems would need to meet electrical-code requirements and be certified by UL or another recognized testing laboratory.
- It is not quite legal yet: the bill still needs final Senate concurrence and the Governor's signature. If enacted, it is expected to take effect January 1, 2027.
- Typical systems are roughly 400–1,200 watts, using one to three panels with a small microinverter that converts DC power to household AC power.

## Is it worth it?

For a California home, condo, or rental with good daytime sun, yes, potentially. An 800–1,200 W system can offset some daytime electricity use without the cost of a conventional rooftop installation. The biggest benefit is when you can use the solar power directly during the day.

If you're considering buying one, compare the best plug-in solar systems available in California, expected savings, and whether you should wait for SB 868 to take effect.

Utah's legislation allowing plug-in ("balcony") solar, the key law is HB 340 — Solar Power Amendments, passed in 2025.

- It allows qualifying portable solar generation devices up to 1,200 watts AC to connect to a home through a standard 120-volt outlet.
- Qualifying systems are exempt from utility interconnection requirements and do not require an interconnection agreement or utility approval.
- The system must meet the National Electrical Code and have certification from UL or an equivalent nationally recognized testing laboratory.
- It must have anti-islanding protection, meaning it cannot continue energizing the home's electrical system during a grid outage.
- The law does not put these systems into Utah's net-metering program, so you aren't entitled to payment for excess electricity sent to the grid.
- HB 340 was signed in March 2025 and took effect May 7, 2025.

Utah was the first U.S. state to specifically legalize this type of plug-in solar, and the approach has since inspired legislation in numerous other states.

# Mystery History: The Reservoirs That Built a Neighborhood



Presented by Jack Feldman 

Most Angelenos who walk around Silver Lake Reservoir today probably think of it as a neighborhood landmark rather than part of the city's water system. Yet the reservoir began life more than a century ago as municipal infrastructure, built as Los Angeles struggled to meet the water demands of a rapidly growing city. Its smaller neighbor, Ivanhoe Reservoir, was completed first in 1906, followed by Silver Lake in 1907.

What happened afterward is an often-overlooked part of Los Angeles history.



The reservoirs helped transform a largely rural valley of farms and orchards, encouraged residential development in the surrounding hills, and eventually gave an entire neighborhood its identity. Along the way, Silver Lake became far more than a place to store water.

(1924) Aerial view looking north over Silver Lake Reservoir and the smaller Ivanhoe Reservoir beyond. West Silver Lake Drive follows the reservoir at left, while newly graded streets of the developing Moreno Highlands wind through the hills in the foreground.

How much do you know about the reservoirs that helped create the neighborhood around them?

## Mystery History Questions

**1. Before Silver Lake Reservoir was built, what name was associated with the canyon and the first reservoir built there?**

- A. Ivanhoe
- B. Edendale
- C. Moreno Valley



**2. How did Silver Lake get its name?**

- A. From the silvery appearance of the water at sunset
- B. From silver deposits once found in the surrounding hills
- C. From Los Angeles civic leader Herman Silver

**3. What unusual construction method did William Mulholland use to help build Silver Lake Dam?**

- A. Steam-powered conveyor belts
- B. Hydraulic sluicing using powerful jets of water
- C. Dynamite followed by horse-drawn grading

**4. Where did Silver Lake Reservoir originally get its water?**

- A. From the Los Angeles Aqueduct
- B. From wells near Griffith Park along the Los Angeles River
- C. From streams flowing out of the surrounding hills

**5. Which silent film star became closely associated with the development of Moreno Highlands above Silver Lake Reservoir?**

- A. Charlie Chaplin
- B. Antonio Moreno
- C. Rudolph Valentino

**6. Why does Ivanhoe Reservoir look so different from Silver Lake in some old photographs?**

- A. Ivanhoe was sometimes drained and used as a recreation field
- B. Ivanhoe was covered by a large wooden roof
- C. Ivanhoe was originally an underground reservoir

**7. When it was new, approximately how long could Silver Lake Reservoir have supplied Los Angeles if the city's other water sources were interrupted?**

- A. About three days
- B. About one week
- C. Nearly three weeks



(1930) View looking east toward the covered Ivanhoe Reservoir from near Tesla Avenue and West Silver Lake Drive. A portion of Silver Lake Reservoir is visible at far right.

**8. Why are so many streets around Silver Lake curved rather than following the familiar Los Angeles grid?**

- A. They followed the natural hillsides and were laid out to take advantage of reservoir views
- B. They followed the routes of earlier streetcar lines
- C. They were built over old irrigation canals

**9. Does Silver Lake Reservoir still supply Los Angeles with drinking water today?**

- A. Yes, it remains an active drinking water reservoir
- B. Only during emergencies
- C. No, its original water supply role has been replaced by an underground facility

**Answers on Page 23 or Click [HERE](#) and see the complete story behind Silver Lake and Ivanhoe Reservoirs.**

## July Field Trip to the Port of Los Angeles

By Julie Spacht

Los Angeles has three semi- independent departments, Water and Power, Airports and the Port of Los Angeles (PoLA). These three departments are engines of commerce and growth of the city over the years. On July 23<sup>rd</sup>, the Port of Los Angeles welcomed the W&P Associates on a tour of the Harbor. The hour and a half tour was narrated by Daniella Ruiz, Director of Port Marketing with special commentary by Salvador Zambrano, Assistant Chief Harbor Engineer. PoLA has been the #1 container port in the Western Hemisphere for 26 consecutive years. In 2025 it had 1898 vessels calls, serving over 91,000 automobile carriers, 10.2 million container units (equivalent to a 20-foot container) and 241 cruise vessels.

It is overwhelming to pass along a corridor of fully automated docks with ships stacked high above on either side of you. Sal explained the automation, and proposed development planned to be completed before the coming Olympics. He pointed out the directionally drilled conduit carrying the primary water line in the area along with “spares”, conduit which will be used in the ongoing development. Most of the cranes are already electrified. The continuing work will include electrification of outbound transportation. Local distribution is by truck and regional and trans-continental shipping is by rail.



# GUEST SPEAKERS

Summaries by Robert Yoshimura

GUEST OF THE MONTH  
AUGUST 2026

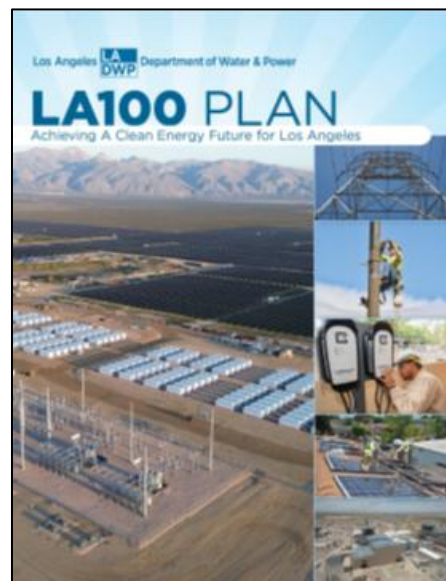
**Arash Saidi, Director of Power Planning and Innovation Division**  
**James Barner - Asst. Director, Power Planning & Innovation**  
**Jimmy Lim - Power Resource Planning Manager**  
**Los Angeles Department of Water & Power**

## LA100 PLAN – IN-BASIN GENERATION AND CARBON FREE RESOURCES

**Overview.** The Los Angeles Power System remains the nation's largest municipal electric utility. As of fiscal year 2024-25, it had 11,525 MW of net maximum plant capacity, achieved a record instantaneous peak demand of 6,502 MW (in 2022-23), supplied 22,974 GWh to 1.6 million customers, and generated \$5.5 billion in revenue. LADWP has now embarked on an ambitious program to convert all of its generation resources to renewable energy.

The LADWP's plan to convert its power system to 100% renewable energy is now called the LA100 Plan. That plan, created in 2024-25, contains the long-term integrated power system plan that provides a roadmap to achieve program goals by 2035. The plan will be updated every two years to ensure that balanced reliability, affordability, equity, and environmental benefits are addressed. This two-year process will require eight Advisory Group meetings (beginning this week) and four community meetings.

The LA100 Plan is based on computer modeling using assumptions appropriate to the purpose of each model. Two scenarios were modelled: the LA 100 pathway and the SB 100 benchmark. Basic assumptions for each scenario are:



### LA100 Pathway (main model run)

Coal retirement by 2025  
80% renewable energy by 2030  
100% carbon-free electricity by 2035  
Maintained high system reliability

### SB 100 Benchmark (reference-only)

Coal retirement by 2025  
60% renewable energy by 2030  
100% clean electricity by 2045  
Maintained high system reliability

Input assumptions for both scenarios include load growth and electrification, technology cost and availability, policy and regulatory constraints, and fuel prices and emissions limits. The model runs produced much necessary information regarding resource portfolios, reliability and resiliency metrics, and emissions trajectories. Of particular interest are the cost estimates for each scenario. The LA100 pathway will result in a total cost (net present value) of \$102 billion and estimated average retail rates in cents/kWh of 44.1, 64.2, and 71.1 in 2030/35/45. For the SB 100 benchmark, total cost is \$84.8 billion, and retail rates will be 38.0, 45.5 and 51.9.

**Hydrogen Implementation.** A major milestone in the quest for clean energy was achieved in 2025 when the coal-fired Intermountain Power Project was retired. Its replacement, IPP Renewed, was completed at the same time and is now in service producing up to 840 MW of cleaner, natural gas-fired electricity. It has the capability to burn 30% hydrogen as part of its fuel supply and will begin doing so later in 2026 when the Advanced Clean Energy Storage (ACES) project is completed. ACES will generate pure Hydrogen gas electrolytically using surplus renewable energy and store it in caverns located beneath IPP. Ensuring system reliability and resilience as part of LA100 will require firm capacity which has been incorporated into the plan. As currently configured, LA100 consistently achieves a Loss of Load Expectation (LOLE) below the industry standard of 1 day in 10 years, indicating a very reliable generation supply. A 2025 study by the National Renewable Energy Laboratory reaffirmed the need for firm dispatchable generation capacity in-basin at Scattergood Power Plant. The study concluded that “renewably fueled combustion turbines are the only option with both the lowest cost and lowest risk in the 2030 timeframe”.

The Scattergood Modernization Project is consequently underway with a target in-service date of late 2029. The project will produce up to 346 MW of firm capacity from combined cycle turbines with the capability to burn a minimum of 30% green hydrogen. The project will start-up with natural gas and transition to 30% hydrogen when it becomes available. A subsequent retrofit will enable 100% hydrogen use. Hydrogen vendors are being sought who can establish production facilities locally. The extremely large volumes of hydrogen needed at Scattergood are expected to create a willing market for vendors.

**Power System Investments in Carbon-Free Supply.** In the last two years, LADWP has invested over \$7.5 billion in a variety of renewable energy projects including solar, wind, and geothermal, that will provide a total capacity of 2,090 MW of energy and 301,000 MWh of storage, mostly at IPP Renewed. Noteworthy local investments include Distributed Energy Resources (DER) programs, Demand Response initiatives, EV charging infrastructure, and energy efficiency projects.

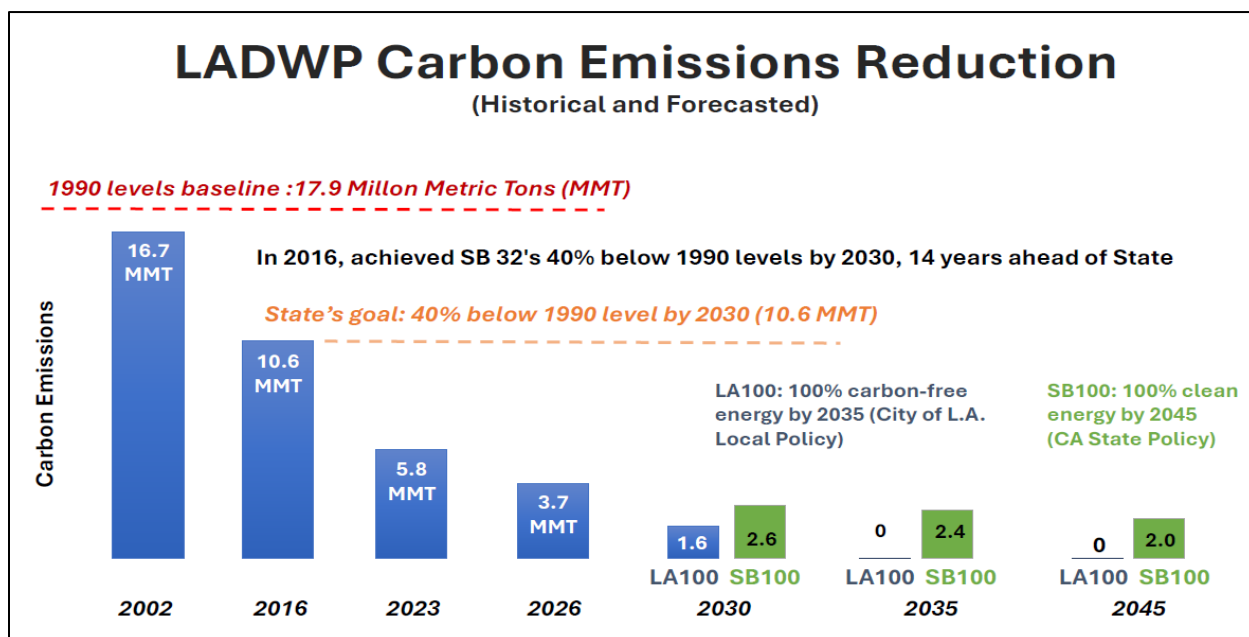
DER programs include Net Metering, Feed-In Tariffs, and other programs to encourage solar development and sharing of battery energy storage systems (BESS). Net Metering for owners of rooftop solar systems involves payments to those owners for any surplus energy put back into the grid. LADWP is obligated to pay those owners (via a credit on their bills) at a retail price whereas other utilities in California pay them at a wholesale price. LADWP's obligation stems from a 2008 agreement that burdens low-income customers who face higher power bills because of the higher cost of electricity to LADWP. That agreement will eventually evolve and enable them to catch up to all other utilities who pay a wholesale rate.

One particularly innovative new program involves privately owned battery electric storage systems in commercial and non-commercial electric vehicles whose owners will be paid for selling some of that electricity back to the grid during high-demand periods.

Demand Response (DR) programs shift electricity use to different times of the day, reducing peak demand and easing the burden on generation, transmission, distribution, and BESS facilities. DR programs are expected to provide 340 MW of peak load reduction by 2030, largely through commercial and industrial DR programs, the Power Savers program, managed EV charging, and smart devices in homes to change the operating hours of air conditioners and other household appliances.

### Emissions Reduction, In-Basin and Carbon Free Generation, LA100 Plan

**Recommendations.** The primary point of SB 100 is to reduce carbon emissions from the generation of electricity. LA 100 is Los Angeles' plan to reduce carbon emissions to zero by 2035 (ten years ahead of the SB 100 mandate). As shown in the diagram below, LADWP achieved the state goal of a 40% reduction in carbon emissions below 1990 levels 14 years ahead of schedule. Furthermore, it has achieved a 60% reduction in carbon intensity (lbs. of CO<sub>2</sub> per MWh produced) between 1999 and 2023 and anticipates a further reduction to zero carbon emissions by 2035.



The forecasted impact of LA100 on average retail power rates will be substantial but similar to rate impacts on all other utilities in California. That rate is expected to reach 71.1 cents per KWh by 2045. By comparison, the forecasted average retail power rate would rise to 51.9 cents per KWh by 2045 if the mandated SB 100 plan were implemented instead.

Implementation challenges include staffing, procurement, transmission constraints, and permitting delays. Transformation strategies include a focus on accelerating renewable buildout, expanding energy storage, and upgrading infrastructure. The excellent progress made to date foretells successful achievement of the goals to achieve carbon-free energy while maintaining system reliability.

GUESTS OF THE MONTH  
SEPTEMBER 2026

**Jamie Valenzuela - Manager, Policy and Planning for Owens Lake and Mono Basin**  
**Arash Agahi, Owens Lake Regulatory Compliance and Coordination**  
**Clint Klausky – Squad Supervisor Owens Lake Regulatory Compliance and Coordination**  
**Amir Hotak – Owens Lake Regulatory Compliance and Coordination**  
**Los Angeles Department of Water & Power**

**2026 Mono Basin Update**

Advocates for the preservation of Mono Lake have been fighting the LADWP since the formation of the Mono Lake Committee in 1978. They have used a variety of political, legal, and public relations channels to reduce exports of water to the city of Los Angeles. In response, LADWP has cut exports drastically, implemented numerous environmental safeguards and restored ecosystems in the tributaries that feed the lake. In effect, LADWP has resolved the issues that those advocates have complained about. LADWP has also stressed the importance of the exported water because it is the most affordable and reliable water supply the city has, and because it generates electricity on its way to Los Angeles.



Los Angeles currently gets its water supply from the State Water Project (SWP) and Colorado River via purchases from MWD (50%), the Los Angeles Aqueduct (LAA) (41%), local groundwater (7%), and recycled water (3%). SWP supplies are highly variable from year to year depending on climate and the Colorado River is facing severe challenges that will result in significant reductions in future supply. Projects are ongoing to develop local groundwater and recycled water to supplant those reductions and reduce reliance on MWD while maintaining the most affordable LAA source of which Mono Basin is a part.

Following completion of the Mono Basin Tunnel in 1940, water exports from the basin averaged 100,000 AF/yr. which led to a precipitous decline in the lake level that raised concerns about the ecological health of the basin. In 1994, the State Water Resources Control Board (SWRCB) adopted Decision (D) 1631 establishing numerous environmental improvements, a target water level elevation of 6,391 feet and cutting exports to 16,000 AF/yr, 4,500 AF/yr. or zero based on lake elevation. Since then, lake levels have trended upward, indicating that D1631 is working.

Because of D1631 and the efforts of LADWP, Mono Lake's water elevation has risen 10 feet since 1994 and is the only western saline lake to gain water volume. All environmental improvement targets have been met except for the target lake elevation of 6,391 feet. LADWP's model studies predicted that the target elevation would be reached in 2020, but due to the severe 26-year western drought, it has not. Consequently, the Mono Lake Committee is now calling for the city of Los Angeles to cease all exports from the Mono Basin.

A collaborative study by UCLA, the SWRCB, and LADWP predicts that the target lake elevation will not be achieved for about 25 years. Furthermore, the difference in time to achieve that goal between a no-export scenario and a D1631 scenario is less than one year. Thus, the loss of the value of that water and the loss of electrical generation to the city for 25 years cannot be justified. The no-export scenario desired by the Mono Lake Committee is equal to the cost of water supply for 200,000 people for 25 years!

Replacing any loss of water from Mono Basin will shift the environmental burden on to other sources such as the Colorado River and SWP which are associated with serious environmental concerns. The cost of replacement sources is 5 to 10 times greater than the cost of Mono Basin water and would result in a 1% to 6% increase in water rates for all customers. Water from the Eastern Sierra is the most affordable, energy efficient, and environmentally sustainable water source for the city of Los Angeles. Thus, any thought of giving up water from Mono Basin is, simply put, a dumb idea.

The SWRCB is currently hosting workshops and informational meetings regarding Mono Lake at which some unverified and questionable data favoring opposing views have been presented. LADWP has pointed out that a formal adjudicative hearing is required by D1631 as the basis for any change in the operation of Mono Basin water supplies. SWRCB has promised to conduct such a hearing in the near future.



## **Mystery History Answers**

- 1. A — Ivanhoe**
- 2. C — Herman Silver**
- 3. B — Hydraulic sluicing**
- 4. B — Wells near Griffith Park along the Los Angeles River**
- 5. B — Antonio Moreno**
- 6. B — It was covered by a large wooden roof**
- 7. C — Nearly three weeks**
- 8. A — The streets followed the hillsides and took advantage of reservoir views**
- 9. C — No. Its original water supply role has been replaced by an underground facility**

For a more detailed answer to each of these questions, please refer to the Water and Power Associates website linked [HERE](#).

# SAVE THE DATE

## 2026 CALENDAR

### GUEST OF THE MONTH

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



|                                                           |                                                                           |
|-----------------------------------------------------------|---------------------------------------------------------------------------|
| WATER & POWER ASSOC<br>PLANNING MTG                       | OCTOBER 14, 2026                                                          |
| KEVIN PENG<br>Asst Director, Power System<br>LADWP        | NOVEMBER 11, 2026<br>IPP Hydrogen Update<br>(Zoom Mtg Only, Veterans Day) |
| SCOTT MELLON<br>General Manager<br>Glendale Water & Power | DECEMBER 9, 2026<br>Grayson Power Plant Repower                           |
| SPEAKER TBD                                               | JANUARY 13, 2027                                                          |

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