



LA100 EQUITY STRATEGIES

In the Los Angeles 100% Renewable Energy Study (LA100), the National Renewable Energy Laboratory (NREL) found that the City of Los Angeles can achieve its ambitious goal of reliable, 100% carbon-free energy as early as 2035. **While all communities will benefit from air quality and health improvements of clean energy, improving equity in participation and outcomes requires intentionally designed equity strategies.**

To plan for a clean energy future that benefits all Angelenos, the Los Angeles Department of Water and Power (LADWP), NREL, and the University of California Los Angeles (UCLA) partnered on the LA100 Equity Strategies project.

In an innovative, community-informed approach, the **LA100 Equity Strategies project integrated robust social science research techniques with rigorous data analysis**—and incorporated what community members themselves know is needed to achieve a more equitable energy future.

The team developed effective strategies for engaging communities, funding equitable technology and infrastructure investments, expanding existing clean energy and energy assistance programs, and designing new programs and policies to enhance equity.

An equitable clean energy transition requires bringing everyone along, including those who can least afford it.

A successful transition requires both energy system changes, by LADWP and the City, and household changes, like shifting to electrified transportation and homes, which many people cannot afford.

The Current Energy System Is Inequitable

To date in Los Angeles, clean energy rebates, incentives, and grid upgrades have disproportionately benefited higher-income, home-owning, non-disadvantaged, mostly White, mostly non-Hispanic communities.

Underserved communities experience more burdens (e.g., high energy burdens, unsafe temperatures, electricity outages, and poor air quality) and fewer benefits, especially access to grid upgrades, clean energy incentives, and savings. Of the LADWP residential incentives analyzed, only 23% of electric vehicles (EVs), 38% of solar, and 46% of efficiency incentives went to disadvantaged communities.

Without changes in rates and solar compensation, energy inequity will increase over time. Lower-income households will pay disproportionately more for the energy system and experience fewer benefits—compared to those that can afford clean energy technologies and benefit from the savings they provide. Under existing rate and solar compensation approaches, average electricity bills increase 79% for all households and 131% for low-income households by 2035.

Lack of ability to pay energy-related costs and lack of financial capital limits communities' access to EVs, efficiency options, jobs, training, and entrepreneurship. Limited eligibility for existing energy-related incentives, subsidies, and other aid programs further reduces access and affordability.

Equity Strategies Provide Options

The LA100 Equity Strategies project provides community-guided, data-driven strategy options as a starting point, but there is more work to be done. LADWP and the City—in collaboration with community members—will need to assess tradeoffs, set priorities, identify lead and partner organizations, and allocate resources for strategy implementation.

California laws constrain rate affordability and prevent LADWP from providing robust low-income rate and bill assistance. Current laws prevent LA from supporting low-income households with funds from higher-income ratepayers, but low-income customers in effect subsidize often higher-income solar, EV, and building technology adopters. Law changes could allow rate and bill assistance reforms to triple the number of households receiving bill assistance and reduce low-income electricity bills between \$14/month and \$100/month depending on rate design.

LADWP can cost-effectively deliver solar bill savings to low-income households and renters. Bill savings—averaging \$480/year—for renters, multifamily building residents, and low-income households can be achieved by establishing a 20% low-income Shared Solar program discount rate and developing more Shared Solar (over 1,000 megawatts of potential). This approach results in five times more local solar capacity for the same investment as net-metered residential solar.

Increasing LADWP's used EV low-income incentives and expanding at- and near-home EV charging access could increase used EV adoption among low-income households by 50,000 vehicles by 2035.

Truck electrification substantially improves air quality and health, particularly in traffic-impacted disadvantaged communities. Electrification of heavy-duty trucks—which represent 5% of registered vehicles but generate more than one-third of pollution—would improve air quality and health more than closing in-basin LADWP fossil fuel power plants.

As the climate changes, universal access to home cooling will save lives. By 2035, 230,000 low-income households are projected to experience more than two months of exposure to dangerous indoor air temperatures annually. Multifamily building residents—56% of LA's population and 95% of low-income renters—are at highest risk. Adding cooling nearly eliminates dangerous temperature exposure.

Distribution grid upgrades are needed to enable equitable participation in the clean energy transformation. The typically smaller existing service connections and grid of low- and moderate-income customers will need proportionately larger upgrades to enable equitable access to EVs, electrification of homes, and universal home cooling.

Energy Equity Requires Continuous Engagement

Community leadership in decision-making, program and policy design, and implementation will lead to more equitable outcomes and participation. Community members suggested a promotora-type approach to employ community members to deliver tailored information about programs and benefits.

More details on these key findings are available online.

NREL.gov: maps.nrel.gov/la100

LADWP.com: ladwp.com/CleanEnergyFuture

