

Implementing LA100 Equity Strategies

BARRIERS, NEEDS, AND PROGRESS TOWARD
AN EQUITABLE ENERGY TRANSITION



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1. OVERVIEW AND KEY FINDINGS

Ten years out from the deadline for the City of Los Angeles to reach 100% renewable power, the Los Angeles Department of Water and Power (LADWP) is developing its strategy for an equitable transition to renewable energy. These efforts are responsive to the 2023 LA100 Equity Strategies study, a two-year study conducted by an interdisciplinary team from UCLA and the National Renewable Energy Laboratory (NREL) (Anderson et al., 2023). Since the conclusion of that study, UCLA researchers from the Luskin Center for Innovation and the California Center for Sustainable Communities have advised on and informed the utility's equity strategies development and implementation. These activities have included the establishment of an Equity Strategies Advisory Committee, as well as efforts to develop an equity action plan and to renovate the Equity Metrics Data Initiative (EMDI).

To understand and support the wide array of efforts to advance energy equity at LADWP, we interviewed LADWP program management staff in summer 2024. We also interviewed staff from five other city agencies and one state agency in fall 2024, with the goal of identifying existing and potential interagency collaboration on energy equity in LA. This brief summarizes the perspectives we heard in our interviews. Where relevant, we provide our own insights, observations, and recommendations as a research team. Our insights appear in call-out boxes to ensure it is clear which findings and observations come from interviewees and which come from the research team. These call-out boxes are based largely on the interview findings but also draw on broader work we have conducted in the LA100 Equity Strategies process.

This published report is the first of several publications resulting from our work with LADWP following the Equity Strategies study. It presents a snapshot of LADWP and non-LADWP agency staff perspectives on equity efforts at LADWP during the summer and fall of 2024. Since that time, LADWP's equity-focused staffing has changed substantially. New senior-level staff have been hired and are involved in equity strategies. Specifically, the new Chief Strategy and Sustainability Officer is overseeing the equity strategies work and is working to expand staff capacity, including imminent plans to hire an executive director. A version of this document was shared with LADWP in the winter of 2025 to assist with these transitions and inform future work.

The report begins with an overview of perspectives on equity concepts and definitions we heard from LADWP staff (Section 2), followed by a section reviewing the barriers to advancing equity (Section 3). Sections 4 through 6 present observations and staff perspectives in specific areas: customer and community engagement, data and evaluation, and interagency collaboration. Section 7 presents targeted recommendations for a potential LADWP equity action plan and the broader equity implementation process, and Section 8 concludes with overarching observations and next steps. Throughout the report, we weave together findings from interviews with LADWP and non-LADWP staff, noting the specific source of insights where relevant. As noted, we include our own observations and recommendations in call-out boxes.

1.1. Interviews and Structure

LADWP leadership referred us to staff interviewees who represent key equity-related programs: Cool LA and other appliance rebates, customer assistance programs (specifically, EZ-SAVE), electric vehicle (EV) incentive programs, solar-related programs, the Comprehensive Affordable

Multifamily Retrofits (CAMR) program, and the moratorium on disconnections for nonpayment. We spoke with one to four staff members per program or topic area. Table 1 lists those groups of LADWP staff.

TABLE 1

LADWP Interviews (Summer 2024)

Interview Topic	LADWP Staff Represented	Programs/Initiatives Discussed
Cool LA and other appliance rebates	Mass Market Programs Group	Efficient Product Marketplace and Cool LA Rebate
Customer assistance programs	Customer Service Division, Operational Effectiveness Office	EZ-SAVE Lifeline
Electric transportation programs	Electric Transportation Programs, EV Service Design Team	Used EV Rebate, “EV Hubs”
Solar-related programs	Distributed Energy Solutions Programs Group	Virtual Net Energy Metering (VNEM), Shared Solar Program, Solar Rooftop Program
Building electrification	Distributed Energy Solutions Programs Group	Comprehensive Affordable Multifamily Retrofits (CAMR) Program
Moratorium on disconnections for nonpayment	Revenue and Credit Management Group, Accessibility Implementation Team, Customer Accessibility Group	Moratorium on shutoffs, EZ-SAVE

Following the interviews with LADWP staff, we sent each group of interviewees a document highlighting key findings and results from the LA100 Equity Strategies study (referred to hereafter as LA100 ES) that are relevant to their ongoing equity work.

For our interviews with external agency officials, we selected interviewees by identifying key agencies for each major LADWP collaboration topic (particularly, extreme heat, building electrification, and transportation electrification), and then finding contacts at those agencies through referrals and from agency website staff listings. Table 2 lists the agencies whose staff members we interviewed, along with the main topic areas we discussed. We also requested an interview with the South Coast Air Quality Management District (SCAQMD), but the contacts we found did not respond to our inquiries. We also spoke with an LADWP consultant about collaboration and data sharing between LADWP and the Housing Authority of the City of Los Angeles (HACLA).

TABLE 2

External Agency Interviews (Fall 2024)

Agency	LADWP Staff Represented
LA Climate Emergency Mobilization Office (CEMO)	Mass Market Programs Group
LA Department of Building and Safety (LADBS)	Customer Service Division, Operational Effectiveness Office
LA Housing Department (LAHD)	Electric Transportation Programs, EV Service Design Team
California Air Resources Board (CARB)	Electric vehicle incentives
LA Bureau of Street Lighting (BSL)	Electric vehicle charging infrastructure
LA Department of Transportation (LADOT)	Electric vehicle incentives and charging infrastructure
LA Mayor's Office of Energy and Sustainability	Citywide electric vehicle coordination and collaboration

1.2. Key Findings

Based on our interviews and our ongoing work with LADWP, we arrived at seven insights and recommendations. All of these findings are discussed in more detail throughout this report. LADWP has begun to plan for or implement some of these strategies since this study concluded.

1. **Need for ambitious, concrete, and transparent public commitments:** LADWP should publish an equity action plan that lays out ambitious plans that are also backed by specific details and concrete targets. The plan should show how the utility will address the inequities revealed by LA100 ES, or explain where it is beyond the utility's scope. The plan must go beyond existing promises to improve outcomes, which do not specify how LADWP will achieve these outcomes. The plan can detail selected actions that are already underway but not publicly visible, so stakeholders can see all LADWP is doing to advance equitable outcomes, but it should make clear which actions are new and which are continuations of prior work.
2. **Need for an equity mandate for staff backed by a universal vision and definition:** Without an overarching equity mandate or vision, LADWP staff do not share an idea of what equity means or how to operationalize it in internal processes, such as prioritization of resources. Many staff want to advance equity but are uncertain about how to do so with limited funding and staffing. Alongside an equity action plan, leadership should give staff a mandate to think big and provide clear guidance on the vision of Equity Strategies. They should emphasize these strategies' ability to improve outcomes for all LADWP customers — equity is not a zero-sum game. Leadership can also facilitate collaboration among teams, many of which face similar challenges in their equity endeavors. Staff would also benefit from equity training led by external experts with strong environmental justice experience.

3. **Need for institutional change management:** LADWP's equity work will be more effective if the utility employs a comprehensive internal change management strategy (which some staff have indicated is in development). Some staffing changes will be necessary as LADWP focuses more on equity, but if not properly planned for, they can also disrupt equity strategies implementation. Changes must be planned across groups so as to limit this disruption. As of the end of 2024, actions taken as a result of the LA100 ES study had been piecemeal, conducted on a team-by-team basis, in part because of changing leadership and restructuring of existing staff. LADWP staff have indicated that in 2025, a more comprehensive, integrated change management strategy is in development.
4. **Need for public information sharing and community engagement:** The LA100 ES study was published 1.5 years ago, but LADWP has not yet responded with a public plan to implement the study's findings. As a result, the public does not know how the utility plans to achieve a just energy transition and cannot hold it accountable for any commitments. The "Powered by Equity" initiative largely comprises programs that existed before the study and do not meet the utility's equity goals. LADWP must more thoroughly report its plans for the energy transition. It should also lead development of a data-sharing platform for all city agencies involved in energy equity. As it implements more publicly accountable equity initiatives — and modernizes its data management — LADWP will be able to gather and share information on technology and infrastructure costs, readiness, and customer needs.
5. **Need for citywide collaboration to dismantle common obstacles:** Many agencies in LA face similar barriers to equitable action to those faced by LADWP. They include hiring barriers, lack of data, slow timelines, administrative red tape, and funding limitations. LADWP should work with other agencies, as well as the Mayor's office, to initiate a large-scale, holistic effort to coordinate the city's energy equity efforts. LADWP could take the lead in coordinating customer and community outreach with respect to energy equity programs. Energy equity outcomes like building electrification depend on complex processes of multiple city agencies. A cross-agency team could convene these agencies to streamline processes and maximize city resources, providing a service to residents who wish to electrify their homes. This would require substantial resources and funding from across the city.
6. **Need for a centralized data management system that is well integrated into staff workflows:** Many LADWP staff called for a more unified approach to data collection and management across the utility, which currently uses multiple databases and methods to track data. A key facet of such an approach, but also an area of sensitivity for the utility, would be for LADWP to consolidate its customer data and tracking into one high-quality Customer Relationship Management (CRM) tool and provide strong training to ensure staff are using it consistently. This system would form the foundation for an accountability framework to track and measure the success of LADWP's equity efforts, including the potential equity action plan, and revamped, publicly-reported equity metrics.
7. **Need for a long-term community advisory board:** LADWP should form a community advisory body that builds upon the Equity Strategies Advisory Committee. A long-term,

formalized body of community members and partner organizations could provide critical community oversight and governance of LADWP's equity action plan. Such a body can establish an avenue to deeper levels of trust, participation, and empowerment among LADWP's customers. LADWP must work with stakeholders to establish this body carefully, ensuring its role is clear, participants are compensated for their time and expertise, and members represent those most affected by energy inequity in LA.

2. LA DEPARTMENT OF WATER AND POWER (LADWP) STAFF PERSPECTIVES ON CURRENT EQUITY WORK

The following analysis reflects our research team's takeaways from conversations with key LADWP staff, who may not represent all experiences or opinions across LADWP, but were referred to as the most relevant programmatic experts by LADWP leadership on the ES effort. We also acknowledge that the interview process took place during a period of restructuring at LADWP, when units and positions were in flux, which may have led to less complete information gathering in instances where staff were not fully aware of equity efforts.

2.1. Staff Observations on the Status of Equity Work

We found that many LADWP staff have been thinking carefully about equity in their programs and care about it deeply. In many instances, they have been working to make key programs more equitable for years. Some of the perspectives expressed include constantly being on the lookout for ways to improve programs on equity grounds; that equity is a major driver in recent program restructuring and modification; and that equity is not only a destination, but a constant target and ongoing process.

Here are some examples of recent and ongoing work to improve program equity:

- LADWP has tracked the arrearages of enrolled EZ-SAVE and Lifeline customers for several years to understand whether these customers have higher debt levels than those not enrolled in discount programs. Staff use two main metrics: EZ-SAVE participation (percentage) and the number of customers enrolled overall.
- The **EZ-SAVE bill discount program** (formerly the Low-Income Discount Program) shifted its eligibility verification model from requiring applicants to provide documentation to having applicants self-identify their income. It also removed the Social Security number (SSN) field from its application, which, though not required, was a barrier for those without SSNs. These changes were nearly entirely geared toward increasing the ease of enrollment. The former change shifted the burden of verifying eligibility from customers to LADWP, reducing the barriers to application and enrollment. LADWP staff are now working on a new verification process to balance the goal of making the program accessible to target customers with the need to ensure it is not abused by non-eligible customers. This team has worked to facilitate applications to the program, ensuring the application process was as easy as possible and maintaining no application backlog so that applications could be processed immediately on a rolling basis.
- The **solar Feed-in Tariff (FiT) program** was restructured to promote more carport and canopy solar adoption in disadvantaged communities (DACs) through an added incentive in those communities. Staff made this decision based on market research and historical data that indicated that such incentives could boost DAC participation. Staff looked for outside funding to incentivize projects in DACs. Based on outreach workshops and direct communications with contractors, staff identified that a one-time supplemental incentive of up to \$1.70 per watt would increase participation in DACs. Staff proposed this incentive for projects meeting SB 535 requirements; the Board approved the incentive (in part because it leverages non-ratepayer funds), and it has been announced to customers.

- For the **Solar Rooftop program**, staff saw that rooftops in DACs often did not pass inspection for solar installation; they plan to work with third-party vendors to improve customer rooftops and electrical systems in DACs to allow participation in this program.
- Similarly, for the **Virtual Net Energy Metering (VNEM) program**, staff have noticed that many projects proposed do not meet the size requirements, so staff will request Board approval to reduce the size requirement from 30kW to 10kW. This proposed change was made in partnership with the Comprehensive Affordable Multifamily Retrofits (CAMR) program.
- The **Shared Solar Program** has looked for (and successfully received) external funding to support a lower rate, but needs Board approval to implement the changes.
- LADWP has established a new internal **Customer Accessibility Group** to understand and alleviate barriers to participation in equity-advancing programs. The group aims to use available data more effectively to achieve equity goals across programs, such as building a better understanding of customer composition and identifying reasons customers don't enroll in programs they are eligible for.

While some staff interviewed were not very familiar with the LA100 ES study, others had moderate familiarity with the project, and a small subset were very familiar and had participated in the research and/or data gathering. Some staff noted program changes that have been made as a direct response to the LA100 ES study, including the following:

- Supported by the study, **Electric Transportation Programs** staff successfully recommended and received management approval to increase the used electric vehicle rebate from \$1,500 to \$4,000. Because the change did not require Board approval and was justified by the LA100 ES study, staff said it was easier to recommend and immediately implement it. The team also reported improving the application process by switching to an online application with a simplified user interface, Spanish language option, and fewer requirements to participate.
- The **CAMR program** was created partly in response to the study to comprehensively address many equity issues, with an intent to scale up the program in the future.

However, staff acknowledged the inequities still present in the spaces their programs are intended to affect as well. One example is that for the used EV rebate, participants have historically been disproportionately white, male, English-speaking, and homeowners. As NREL showed in the LA100 ES report, 75% of rebates have gone to non-equity customers (though this was before many of the changes were made). This is, by no means, the only example, but one that a staff member highlighted. Another interviewee noted that some eligible recipients may forgo the used EV rebate because accepting it could risk their eligibility for other low-income programs (including those outside LADWP's purview).

While staff were generally thinking about equity to some degree (or to a large extent!) within their own work, several were not as familiar with current LADWP-wide equity efforts. Specifically, the "Powered by Equity" initiative, which was [launched](#) as part of the rollout for the LA100 ES study, is not known to all staff. Some staff said that they saw the press conference at which Powered by Equity was announced, but said they would not be able to describe what it is. One noted that some programs are listed under Powered by Equity, whereas the staff working on those programs may not be familiar with the initiative.

UCLA TAKEAWAYS

LADWP launched its “Powered by Equity” initiative upon the publication of the LA100 ES study in November 2023. The initiative compiles the utility’s equity-related [programs and initiatives](#), as well as some without a clear equity focus. The launch focused heavily on EV charging infrastructure through a [“cornerstone” plan](#) to build a “city-owned network of electric vehicle (EV) ‘fast-charger’ hubs in the city’s underserved communities.” There is, so far, little public information about this plan. LADWP’s potential value-add to the city’s charging infrastructure would likely be offering lower charging rates, which it could achieve as the public power provider, since other providers have to purchase power from LADWP. For this to be an impactful “equity strategy,” LADWP must meaningfully engage communities to ensure it fits the needs of communities where the hubs are placed.

2.2. Staff Perspectives on Equity Definitions

Staff expressed a need for **universal definitions of equity** and a framework to guide evaluation of equity measures, identification of target customers, and other equity decision-making. Some expressed interest in open-ended guidance from UCLA or others on how to think about equity as they work to improve programs, such as a list of probing questions to identify potential improvements. Staff were interested to know how LA100 Equity Strategies would affect broader equity guidance and procedures across the utility, how equity measures would affect customers, and what mechanisms could be used to drive and measure progress on more equitable outcomes. For example, one interviewee mentioned that an equity decision-making framework could help translate the tenets of justice underpinning the LA100 ES study into day-to-day actions.

Staff requested guidance on how to **identify both individual customers and communities on equity grounds** (e.g., SB 535 DACs vs. income-qualified households). Relatedly, we found that different LADWP programs target “equity gaps” differently, with some focused on DACs and some using customer-level income qualifications such as EZ-SAVE enrollment to determine eligibility. In some cases, different definitions can deflate or inflate how equitable a program appears to be, which staff said is important to consider as UCLA helps develop metrics and compare equity outcomes across programs.

UCLA TAKEAWAYS

LADWP staff, as a whole, do not share a cohesive idea of how to define and operationalize equity. Some consider equity-focused activities to be necessary and important; others express hesitation and concern that by working toward equity, LADWP will penalize well-off customers or undermine its business model. Based on interest expressed by staff and analysis of the utility's processes, LADWP would benefit from a holistic definition of equity so staff know why and how equity strategies are being discussed and implemented. LADWP should develop this definition with input from environmental and social justice stakeholders, staff across levels and divisions, and other communities affected by LA's energy transition.

Furthermore, staff would benefit from high-quality equity training led by external experts with strong environmental justice experience. Training should be developed in consultation with the Equity Strategies Advisory Committee and others with experience with leading-edge, effective equity training. cursory training would not lead to the necessary change.

3. BARRIERS TO ADVANCING EQUITY IN PROGRAMS

In our interviews, we heard from LADWP program staff about the hurdles the agency faces in advancing equity for its customers, as well as from external agency staff about broader barriers to energy equity throughout the city. Below, we discuss some of the specific barriers that LADWP staff face, including approval processes, funding restrictions, and vendor contracts. Other overlapping barriers that we heard discussed by LADWP and other agency staff alike include resident distrust in government, staffing difficulties, and multifaceted difficulties associated with building electrification.

3.1. Slow Timelines and Approval Processes

LADWP staff discussed multiple ways in which formal procedures and approval processes can restrict or slow down program modifications. Many changes require Board or even City Council approval. For the longstanding EZ-SAVE program, changes are made infrequently. Changes to the structure and program guidelines require Board approval, and they are legally restricted by requirements established by Propositions 26 and 218 (though, as we suggested in LA100 Equity Strategies, Sacramento Municipal Utility District's legal reasoning for rate changes under Proposition 26 could be applicable in LADWP's case) (Pierce et al, 2023). When the EZ-SAVE program wishes to make changes, staff work with the Financial Services Office (FSO) to ensure the changes conform to rate guidelines. They then present documentation and rationale for the change to the Board. For the Shared Solar Program, the team is working to make changes in response to the LA100 ES study, but these require Board approval and funding. The funding must come from external (non-ratepayer) funds.

LADWP staff also remarked that even without approval requirements, some changes could be difficult for programs' third-party vendors to administer or support. The changes would require contract amendments and task order changes because they were not part of the initial Requests for Proposal and the vendors' scope of work.

Non-LADWP interviewees also noted that slow processes to receive funding or secure approval can obstruct projects. An interviewee working on EV charger installation cited federal funding timelines and California Environmental Quality Act (CEQA) permitting as two processes that slow progress. Many projects are on expedited timelines, the interviewee said, but there is still substantial red tape.

3.2. Limited Funding, Rising Prices, and Uncertain Costs

Several LADWP staff highlighted funding limitations as a major barrier to equity action. They referenced the restrictions on funding due to Propositions 26 and 218, as well as the goal of minimizing rates. Avoiding rate increases is not only an equity concern, but also mandated legally and heavily emphasized by the LADWP ratepayer advocate during Board meetings. In some instances, staff can help equity customers without ratepayer funds. The solar Feed-in Tariff, for example, used funding from State Assembly Bill 32. Staff said that they are always looking for external funding opportunities, including successful applications for federal funding

from the Department of Energy that will support programs benefiting DACs. We should note, however, that staff made this comment before the current presidential administration and related uncertainty in federal funding streams.

Interviewees from outside LADWP commented on the difficulties posed by rising prices and unknown costs. Interviewees involved in electric vehicle charger installation stated that from the initial processes to apply for funding, draw up plans, and pursue approval to the time when construction can begin, the costs of equipment and labor can rise substantially. This reflects slow timelines, inflation of prices for the required equipment, and the growing demand for labor in the clean energy and transportation space (which an interviewee noted as good but could ultimately increase costs). Interviewees involved in building electrification said that there is no clear understanding of how much retrofitting and appliance installation will cost for different buildings. As discussed later in this document, they also highlighted the potential for LADWP to develop and share cost data.

3.3. Hiring and Staff Changes

Hiring new staff and shifting staff roles can also present challenges for equity implementation. Interviewees from within and outside LADWP remarked that filling staffing gaps and requesting new positions is a slow process that can be a limiting factor to clean energy and equity efforts. City of LA processes, including its civil service hiring system, can lead to drawn-out or stalled hiring timelines. While multiple stakeholders highlighted barriers of insufficient funding and expensive changes, there are instances of sufficient funding but insufficient staff resources to implement and expand programs. In addition, LADWP staff indicated that staffing changes can impede equity actions due to inconsistency during long implementation timelines and loss of institutional knowledge.

UCLA TAKEAWAYS

LADWP staffing changes (turnover or staff moving from role to role within LADWP) can lead to delays and disruptions to equity strategies implementation. The actions LADWP took as a result of the LA100 ES study have been relatively piecemeal, conducted team by team as opposed to a coordinated approach, in part because of changing leadership and restructuring of existing staff. In some instances, staff entering new roles did not continue the efforts of the prior person holding the role, either because they did not know about them or agree with the prior person's priorities. In other instances, efforts were paused while new staff got up to speed, then resumed later, often with loss of clarity and institutional knowledge. LADWP should implement coordinated planning measures and change management procedures to ensure that equity initiatives are maintained during staffing changes.

3.4. Resident (Dis)trust in Government

One non-LADWP interviewee said that residents' distrust of government can make it harder for agencies to gather data and feedback from customers (such as information about program enrollment or customers' housing conditions and electrification status). Data and feedback are critical for improving equity strategies, and a lack of information can hamper staff's ability to design and improve customer programs. The interviewee said that although they think it is LADWP's responsibility to gather improved data on appliances and energy use in multifamily dwellings, a lack of trust from customers is a barrier. They called for an outside entity, such as a research organization like UCLA, a community-based organization, or an environmental nonprofit, to conduct data gathering. LAHD staff said that for many residents, housing inspectors may be the only government employees they ever meet, as inspectors enter individual homes, reaching all multifamily housing every four years.

UCLA TAKEAWAYS

Many LADWP program teams and other city agencies face similar barriers to advancing energy equity in LA (including staffing issues and distrust in government, as well as others). LADWP or the Mayor's Office should initiate a large-scale, holistic effort to coordinate across these agencies. Existing collaboration is piecemeal. There is potential for major impact if agencies were resourced to provide more cross-cutting support and outreach for customers, work together to find solutions to staffing issues, share data, and build trust. Unifying LADWP's existing equity-focused collaborations and integrating them with external efforts has the potential to be a major piece of LADWP's equity strategies.

4. CUSTOMER EXPERIENCE AND OUTREACH

LADWP staff reported that they gather and consider customer feedback when working to improve programs, but programs have varied approaches to gathering feedback, and some lack specific customer feedback mechanisms. Some staff are open to community- and research-based guidance on how to reach their target customers.

Some staff want to better understand why some customers begin but don't complete the application process. For example, renters may have trouble participating in the appliance exchange program because doing so requires approval from their landlord, who owns the appliance. Upon learning they need this approval, some renters/customers may drop out of the application process. In this case, LADWP staff can only assume the property owner/manager was a determining factor in program participation. If LADWP staff had additional insight, they could refine program practices to better support the customers (e.g., LADWP staff could contact the property manager/owner on the customer's behalf). In general, when staff learn what leads customers to stop the application process, they can, in some cases, adjust program requirements to expand eligibility. One reason this matters is that drop-offs can lead to negative impressions of the program spreading in communities via word of mouth.

The LA100 ES study includes substantial analysis of customer experience and outreach. A notable section is Chapter 13, Section 4, and particularly 4.3, "Key Questions in Characterizing Affordability for LADWP In-need Households and Customers." Among other content, this section refers to the Loyola Marymount University 2020 Public Opinion Survey, which asked LADWP customers about their experiences with the utility. It will be useful for LADWP staff to review this chapter further (Pierce et al, 2023).

4.1. LADWP Customer Outreach Examples

Several LADWP program staff provided examples of how they conduct customer outreach to support application and enrollment, learn why customers do or do not want to participate, and identify potential for improvement.

TABLE 3

Examples of LADWP Customer Outreach

Team	Methods and Goals
Mass Market Programs	Mail postcards and flyers to nonparticipating eligible customers to increase program participation
Electric Transportation Program	Support team hotline open 7 a.m. to 7 p.m. to respond to inquiries about rebate programs; online webinars for in-depth support
EV Service Design Group	Quarterly workshop to address general customer questions
Distributed Energy Solutions Program	Receive feedback from participants (mechanism unspecified) to inform program changes and restructuring; collaboration with CBOs to spread the word about programs
EZ-SAVE Program	Direct participants to programs with EZ-SAVE eligibility; work with city partners on information-sharing mechanisms so customers can access benefits with fewer applications; work with other groups to understand the customer base, including through “transactional quarterly studies,” community panels, surveys, and in-depth interviews
The Customer Accessibility Group	Collaborate with CBOs, the state, and others to reach eligible customers but not participating in programs
Revenue and Credit Management Group	Bill payment and debt management workshops for customers; considering sending postcards to discount program customers
Customer Service Center	Host Customer Support Saturdays with personal consultations to discuss available programs and provide budgeting advice
CAMR Program	Host events for property owners; outreach through organizations and conferences, such as the Apartment Owners Association; refer customers to other programs and track resulting enrollment

4.2. LADWP Support for Customers to Access Additional Benefits

LADWP staff noted they put in considerable, typically ad hoc, effort to help customers apply for benefits provided by other agencies and organizations.

- **Mass Market Programs staff** provides a rebate finder to help customers find appliance rebates outside those offered by LADWP. The Mass Market Programs team has

partnered with the Climate Emergency Mobilization Office, the Department on Disability, and the Housing Authority of the City of Los Angeles in identifying rebates and programs for vulnerable customers. This team also cross-promotes other residential energy-efficiency programs as part of the outreach process and via program websites.

- **Electric Transportation Programs staff** tries to point customers toward outside resources and provide an incentive database on their website. These staff also work with the Mayor's Office of Sustainability, other sister city departments, and City Council offices. Almost all funding for EV incentives and programs comes from CARB (from the Low Carbon Fuel Standard (LCFS) and cap-and-trade proceeds), and therefore, this group works regularly with the funding management staff at CARB.
- **CAMR program staff** tracks how incentives stack to secure more funding for projects. By allowing and encouraging customers to layer incentives from outside LADWP, CAMR achieves close to 100% funding coverage for projects. The City of LA contributed \$5 million to CAMR (known as the CAMR Boost). Between the typical CAMR incentive (40%-60% of project funds), the CAMR Boost, and other funding opportunities, projects could theoretically be more than 100% funded (though they cap this at 100% of the eligible project cost). The CAMR program also works with LAHD to market the program.

4.3. Need for Citywide Outreach and Engagement

Staff from multiple non-LADWP city agencies brought up opportunities and needs for expanded community outreach across city entities. The conversations suggested that there is a vacuum to fill in the city for coordinated customer and community outreach with respect to energy equity programs. The ideal platform might be a comprehensive concierge service to reach communities with information about opportunities, then steward individuals through the processes of receiving benefits. Many energy equity outcomes depend on long, complex processes and multiple city agencies. For instance, the building electrification process involves LAHD, LADBS, and LADWP at a minimum. For many residents or small landlords, any snag in the process could stop them from continuing. A service that convenes these agencies and streamlines processes could maximize city resources and encourage progress toward equitable decarbonization.

This type of service would be no small accomplishment. Such a service would need to provide comprehensive, trusted, multilingual support to build mutual understanding among agencies and community members about priorities, program benefits, and processes. Ideally, it would need to be conducted by staff working across the relevant agencies rather than those within only one. The staff would also need training in diversity and cultural competency. All of this would require substantial resources and funding.

UCLA TAKEAWAYS

LADWP must conduct even more substantial customer engagement to achieve deep levels of trust, participation, and empowerment among its customers. The utility already has standard practices of customer outreach in place, but more consistency, centralized planning, and evaluation would help ensure that outreach is meaningful, far-reaching, and effective. One interviewee said that as a large, well-resourced utility, LADWP has a responsibility to conduct “utility-scale” customer engagement.

We recommend that LADWP consolidate its customer data and tracking into a high-quality Customer Relationship Management (CRM) tool and provide strong training to ensure staff and external partners are using it consistently. This tool can then be paired with ongoing evaluation of outreach efforts across all programs and teams, which will help address questions LADWP staff had about how to reach customers and identify where programs are not meeting customer needs. Furthermore, such evaluation could be used as the basis for an accountability mechanism for LADWP’s equity strategies implementation.

5. PROGRAM AND EQUITY METRIC DATA, TRACKING, AND EVALUATION

5.1. Evaluation and Data Management within LADWP

LADWP staff have taken steps to consider equity in their program evaluation processes, but some are looking for additional guidance, particularly in instances where it is unclear what constitutes an equitable outcome. Additionally, conversations with LADWP leadership (including the CEO) made clear to us that updating the utility's data management strategy is a priority. This update could address issues staff highlighted as problematic for equity efforts, including those discussed below.

Complexity of Measuring Success

An important data application is evaluating the success of programs. LADWP staff have to consider what defines success and failure for particular programs, a complex and difficult-to-answer question. Success typically can't be measured just based on one number, such as eligibility or enrollment numbers, and in some cases, must be measured more holistically, even accounting for factors within LADWP's control. For example, low application or participation rates could be due to insufficient outreach or barriers to applying, but they could also show that the program offering fundamentally does not match the target customers' needs. In some cases, staff do not measure progress toward programs' own goals, and those goals can be vague to begin with.

Therefore, it is important for staff to seek an understanding of customers' priorities and needs. Staff working on solar-related programs indicated that they conduct surveys and hold feedback sessions with potential applicants to identify if low application rates stem from insufficient outreach, barriers during the application process, or if the program does not align well with customer needs. Cool LA also conducts customer surveys. An additional complicating factor for evaluation is that programs may have positive or negative impacts that are outside their stated goals, affecting measurement (e.g., increased load from appliance programs).

Inconsistent Data Collection

Spotty data collection makes measuring program success even more difficult. Different LADWP staff groups use different databases and methods to track data. LADWP and external contractors track data using Oracle Customer Care and Billing, Salesforce, Customer Connect, and other systems, including some in which staff simply track their own data independently. Making changes to each system to track new variables would require working with the database administrators. One staff member called for a more unified approach in which all data goes into a department-wide system. One interviewee said the system would need to be integrated into RFPs from the beginning so that third-party vendors can use it as well.

There is also inconsistency in tracking methodology used: Different LADWP programs or even individuals within a program may have different practices of tracking equity variables.

For example, some may mark whether an applicant lives in a DAC in the program database, while others either mark this on the physical application or do not use the database at all. One interviewee said LADWP would need to address this inconsistency if it were to implement a new system for tracking or evaluating the equity status of programs.

Sometimes, a lack of data prevents LADWP from carrying out its own policies. One staff member explained that despite an internal requirement that LADWP notify HACLA if a public housing resident is at risk of service shutoff due to nonpayment, LADWP did not have the data easily connecting those residents with specific utility accounts. To solve this problem, staff worked with internal teams to link LADWP accounts and their associated premises to public housing sites.

Equity Metrics Data Initiative

The Equity Metrics Data Initiative (EMDI), launched in 2016, is nominally supposed to function as LADWP's overarching reporting system for progress on equity for both the power and water systems. In 2021, LADWP Commissioner Susana Reyes initiated a community engagement process to evaluate the EMDI metrics. This culminated in a long list of many potential new metrics, which the then-Board Chair Cynthia McClain-Hill critiqued for not being sufficiently targeted, actionable, or outcome-oriented. Possibly as a result (though there is no clear explanation), EMDI as a whole was paused in 2022.

However, EMDI is still instructive for its successes and shortcomings. When it was active, not all programs reported metrics through the EMDI framework. Some programs track equity-relevant metrics and have targets that are not part of EMDI. Not all staff were certain of whether the programs they oversee were included in EMDI. One staff member said all of their programs should be tracked with EMDI, unless there is a justifiable reason for exclusion. This points to a need for the updated EMDI or new metrics platform to have a transparent rationale for including or excluding programs from metrics reporting. Another interviewee noted that any tracking of equitable outcomes should aim for granularity (e.g., ZIP code-level tracking is too coarse to be useful) while respecting privacy.

UCLA TAKEAWAYS

We are working with LADWP to develop a full metrics, evaluation, and accountability framework by 2026 to monitor the success of its equity strategies and a possible equity action plan, as well as the status of inequities identified through the LA100 ES study. (Potential metrics are discussed throughout the executive summary, with a deep-dive analysis of affordability metrics in Chapter 13.) We are developing outcome-level metrics to track the status of energy equity in the city, which will be publicly reported regularly once employed. We also plan to work with program managers to create program-level metrics to track how equitably key LADWP programs are achieving their goals. These metrics will need to be based on a set of common criteria for equity, which will be partially established by LADWP's goal-setting in an action plan and also by the outcome-level metrics.

5.2. Potential for Collaborative Interagency Information Gathering and Data Sharing

Several non-LADWP agency staff members suggested LADWP could play a role in collecting and sharing much-needed data to realize electrification. One interviewee observed that agencies cannot directly access key grid information that LADWP has, such as data on transformers. Such information is important for understanding the potential for building electrification, i.e., where the grid can support fully electrified buildings. While there is some public data on LADWP's website, staff from other agencies suggested there is room for improvement and further data is needed to achieve energy transition goals.

Several interviewees pointed out a significant data gap concerning building electrification costs and potential energy-efficiency savings. A non-LADWP interviewee suggested that LADWP's CAMR program has the potential to drive data gathering on the costs of building electrification for multifamily housing, which they consider to be a critical unknown. CAMR already collects substantial amounts of data, which LADWP could compile into a public anonymized database as CAMR projects are completed to help other agencies and stakeholders understand the costs of building electrification.

These costs could also be compared with those of more limited residential electrification and energy-efficiency measures, such as replacing less efficient or gas-powered appliances with efficient electric appliances. One interviewee referred to this more immediate, small-scale approach as a less costly "back door" to electrification. A database compiling LADWP's methods and estimates of costs, energy savings, and other benefits could enable comparisons across these approaches. The city could then plan a multiphase, widespread effort to electrify housing, understanding which neighborhoods can be electrified and at what cost.

Interviewees also brought up several questions that could be addressed through further data collection and analysis:

- What are the financial needs, implications, and feasibility of a heat pump installation program?

- How many residential buildings could be fully electrified based on current infrastructure, electric service panel capacity, and LADWP service agreements?
- How many heat pump installations could current funding sources cover so that the installation would not overly burden property owners or tenants?
- How many master-metered buildings are in LADWP's territory?
- What cooling equipment is present in residences?

In addition to cost and readiness data, LADWP and other agencies could transparently share information among themselves about funding sources for building electrification and energy-efficiency measures. Non-LADWP agency staff indicated interest in learning how much funding is available from each source and over what timeframe. By pooling data and information, LADWP and others could project the funding available over the next 10 years (through the 2035 100% renewable electricity goal). Alongside the costs of different interventions, this would help the city estimate how many buildings can be retrofitted.

In addition to opportunities for LADWP to share its data with other agencies, those agencies can share their data with LADWP. For example, LAHD can provide insight into the interior of buildings, such as laundry facilities and other factors that affect how much water and power residents use. LAHD also now collects data on air conditioning in the units it inspects. Given the cadence of inspections, it takes four years to obtain updates on all buildings; data collected, therefore, spans multi-year periods. However, there is a general lack of data on cooling equipment, suggesting that even if spread over four years, a census of all air conditioners in multifamily units, and whether they work, could be quite helpful. LAHD staff suggested that they expect to have a good inventory of cooling in multifamily rental units in about four years. They also implied that this was mandated by the city manager. LADWP could consider partnering with LAHD to develop a public anonymized database that includes this information.

UCLA TAKEAWAYS

As LADWP modernizes its data management and implements more ambitious, publicly accountable equity initiatives, it can lead the City of LA toward the data foundation it needs to build an equitable clean energy future. A collaborative, comprehensive, and transparent data-sharing platform for all city agencies involved in energy equity — not to mention nongovernmental partners and stakeholders — has the potential to lead to major equity wins throughout LA. This is an area where LADWP is best equipped among all relevant agencies to lead, and coordination could make a substantial difference.

We are working with LADWP to support the development of a transparent data-sharing platform. Some equity data and metrics may be presented through the UCLA Energy Atlas, a platform that hosts parcel-level energy consumption data for the city. Much of this data must remain anonymized, but it can be aggregated to the Census Tract level and used to calculate equity metrics that get shared publicly. This can be one piece of LADWP's future data reporting infrastructure.

LADWP, and the County and City of LA more broadly, may be able to learn from and emulate the WHAM Taskforce model (Christensen & Prichard, 2021). Although it has its own shortcomings, the model was established to ensure countywide interagency coordination and collaboration on the implementation of County Measures W, H, A, and M, and its task force addresses a need for collaboration to solve complex issues through integrated action. A similar model for energy equity could include public data sharing, a website tracking work throughout LA, regular interagency meetings, and other governmental infrastructure to support an equitable, efficient, and effective energy transition.

6. INTERAGENCY COLLABORATION ON KEY ENERGY EQUITY TOPICS

LADWP and non-LADWP interviewees discussed many examples of coordination across agencies and programs, providing broad takeaways for how they could improve, as well as specific examples of opportunities and successes. Several teams said the success of coordination efforts depends on clear communication, aligned objectives, the integration of streamlined processes with other city agencies, and a general openness to change. They specified that coordination gaps stem from differing priorities, difficulty accessing the appropriate contacts, and a reluctance to change. LADWP staff working on solar-related programs suggested that regular interagency meetings could improve collaboration in general.

As noted throughout this brief, collaboration among agencies is important, but it is difficult due to limited staff time and other barriers. A few non-LADWP interviewees discussed the dynamics of working with LADWP. Multiple staff members from other agencies said they had positive experiences working with LADWP, including highlighting the conservation division.

A challenge, one person said, is that when city agencies contract with LADWP for projects, such as retrofits, solar or battery installs, etc., the work can cost substantially more than hiring private contractors. Anecdotally, an interviewee said that several agencies would prefer to work with private contractors — even for retrofitting city-owned facilities — to avoid the challenges and costs of working with LADWP.

LADWP's equity strategies implementation spans many areas of energy equity, many of which do not fall squarely within the utility's purview. Collaboration is particularly crucial in two main areas: **buildings** (including building electrification, indoor residential thermal comfort, and energy-saving measures) and **transportation** (primarily electric vehicle infrastructure and purchase incentives).

UCLA TAKEAWAYS

LADWP can support improved interagency collaboration in several ways. One is to look for ways to streamline LADWP's role in certain processes. For example, we heard that slow provision of power from LADWP has slowed some projects down, such as Project Powerhouse. Speeding up these processes would help other agencies avoid some of the barriers identified in Section 3, including prices rising the longer a process takes.

6.1. Thermal Comfort, Housing, and Building Electrification

Roles

There are at least six local agencies involved in housing and building electrification in LA. Our understanding from the interview is:

- LADWP runs programs geared toward increasing thermal comfort, installing efficient appliances, and electrifying buildings. As the city's power provider, they connect new buildings to the grid and ensure existing buildings have sufficient power for retrofits.
- The LA Housing Department (LAHD) enforces the building code for multifamily housing and collaborates with LADWP on the Gateway to Green program. During routine housing inspections, the agency's inspectors provide recommendations for property owners to conserve water and energy through incentives and rebates, including those run by LADWP. They also conduct data collection.
- The LA Department of Building and Safety (LADBS) conducts permitting and inspections to enforce building and other codes, including green codes.
- The Housing Authority of the City of Los Angeles (HACLA), alongside the U.S. Department of Housing and Urban Development's Section 8 program, operates public housing in the city and works with LADWP to protect public housing residents from energy bill debt and electricity shutoffs.
- The LA County Department of Public Health is currently developing a health code standard for thermal comfort.
- The LA Climate Emergency Mobilization Office (CEMO) provides policy advising, research and reporting, community engagement, and coordination support to inform citywide electrification work (Abdelatty et al., 2023).

Challenges

Interviewees from non-LADWP agencies identified many challenges associated with improving residential thermal comfort and with building efficiency and electrification efforts. These topics are connected for LADWP: They all involve interacting with housing and buildings to improve energy equity, and for this reason, they were evaluated in the LA100 ES study. However, because LADWP does not have full jurisdiction over housing, it can be difficult for the utility to address.

Interviewees highlighted that financing building electrification and efforts to make homes cooler are major challenges and recommended a multiphase approach to develop an understanding of the cost burden and risks. One interviewee commented that CAMR could be an opportunity to produce helpful data and share it transparently. The risks of proceeding with electrification without fully analyzing cost impacts include a "displacement domino effect," which has been observed with past projects: Building upgrade costs are passed through to renters in the form of rent increases, leading to displacement.

An interviewee observed that although every home should be able to maintain a comfortable temperature, requiring landlords to take certain actions could cause chaos for tenants — either

forcing them to move temporarily during the renovation or causing rent to increase once it is complete — or both. The interviewee argued for taking proactive steps to make this transition equitable and said their goal is to guarantee against displacement.

One dynamic interviewee discussed the distinction between electrifying new buildings and existing buildings. LA has an ordinance requiring most newly constructed buildings to be fully electrified, but enforcement is not proactive: LADBS does not examine plans to see what HVAC or water heaters developers are installing, so buildings can still include noncompliant gas appliances and lines. The enforcement then falls to inspectors, who must tell builders or building owners to tear out gas lines after installation. Meanwhile, electrifying existing buildings is a multifaceted, difficult, and expensive process, and costs quickly add up. Anecdotally, LAHD staff mentioned that a transformer upgrade required to fully electrify a building could cost \$500,000.

Collaboration Examples

There is ongoing coordination and collaboration on housing and building electrification programs and planning, as well as opportunities for improvements.

- Multiple LADWP teams described work with HACLA, primarily regarding protections for public housing residents against electricity disconnection. As LADWP resumes electricity disconnections for nonpayment of bills for residential customers, they are required to notify HACLA when a public housing resident is at risk of a disconnection. LADWP did not initially have the data infrastructure to implement this, but LADWP and HACLA staff have collaborated to establish the necessary data foundation.
- The Revenue and Credit Management Group is working with HACLA to protect public housing customers and share information about available support. They are interested in working with the state to get data on customer eligibility to potentially auto-enroll customers in protections. Staff also hope to use LADWP's relationship with HACLA to engage public housing customers who have fallen behind on their bills and are at risk of disconnection. This is especially important because disconnection could constitute a violation of the customer's lease agreement with HACLA, which requires continued service of power.
- LADWP has also worked with LAHD on data sharing and electrification efforts, including the Gateway to Green Program. LAHD staff have collaborated with LADWP for a decade to identify potential energy-efficiency improvements and raise awareness about energy efficiency. LAHD inspectors refer residents to LADWP's energy-efficiency and solar programs, ask residents about interest in specific LADWP programs, and pass a list of potential leads to LADWP, which they send quarterly. The list is based on staff observations from the inspection as well as conversations with residents and property owners. They also leave materials, such as door hangers, to encourage conservation.
- The LA City Council has directed agencies to collaborate on building decarbonization, leading to reports and participation from several agencies, including LADBS, LA City Planning, the City Attorney, LADWP, LAHD, and CEMO. The LA City Council [directed](#)

LADBS to collaborate with several agencies to recommend LA Green Building Code changes that would limit embodied carbon emissions for new buildings and additions. Additionally, CEMO hosted community assemblies on building decarbonization in 2024, as described in [this report](#). Several city agencies participated in the meetings as [directed by the City Council](#), and interviewees said that LADWP's participation helped community members understand energy savings incentive programs.

UCLA TAKEAWAYS

Our interviews make clear there is no one agency in the City of LA taking ownership of building electrification. Several agencies play roles in this complex process, and there appears to be enthusiasm among staff for increased coordination across agencies based on our handful of interviewees. Some agencies, including LADWP, could likely play larger roles, given the resources and mandate to do so. There is a huge opportunity for either the Mayor's Office or LADWP to initiate a citywide interagency hub to coordinate all building electrification efforts.

6.2. Electric Vehicles and Transportation

Agency Roles

There are many agencies involved in electric vehicles and transportation electrification more broadly in LA. Of these, we interviewed staff from three key local agencies and one state agency:

- **LADWP** is primarily involved in providing incentives for used EVs and residential and commercial EV chargers. LADWP also develops funding agreements for external nonprofit agencies to install chargers. Additionally, the utility has said that when its EV Hub program (see UCLA Takeaways, Section 2.1) is implemented, it will install charging hubs throughout the city.
- The **LA Department of Transportation (LADOT)** is working toward electric transportation by developing off-street public EV charging infrastructure and electrified public transit.
- The **LA Bureau of Street Lighting** has a curbside EV charger installation program, through which it installs EV chargers on street light posts, taking advantage of easy power access and excess capacity available after shifting to LED light bulbs.
- The **California Air Resources Board (CARB)** runs grant programs that provide funding for EV purchase incentives, which are implemented by third-party organizations.

Other agencies also play important roles in electric transportation in LA. The **South Coast Air Quality Management District (SCAQMD)** implements state incentive programs, particularly its regional branch of the Clean Cars 4 All (CC4A) program (known as Replace Your Ride in SCAQMD), available to households within the SCAQMD jurisdiction. LA Metro, the Port of LA,

Los Angeles World Airports, LA Unified School District, and other agencies also play critical roles, but we were not able to interview them.

Collaboration Examples

The following are examples of more traditional ongoing coordination and collaboration on electric vehicle programs and planning, as well as opportunities for improvements:

- The **Mayor's Office of Energy and Sustainability** has run an interagency EV task force since 2016. This internal citywide task force shares best practices and lessons learned. It has somewhat served as a performance management mechanism for the electrification goals in the sustainable city plan published in April 2015. The task force includes the LA General Services Department, LA Bureau of Street Lighting, LADWP, LADOT, Los Angeles World Airports (LAWA), Port of Los Angeles (POLA), Recreation and Parks (RAP), and others.
- LADWP was very involved in launching BlueLA (an electric vehicle sharing program) alongside **CARB**, the **Mayor's Office**, and the **Los Angeles Department of Transportation (LADOT)**. They were part of a team that conducted community engagement. As part of its community engagement and interagency coordination efforts, CARB tries to bring in local agencies and connect with CBOs to understand local desires and needs, though a lack of bandwidth and staff resources can impede such collaboration.
- The **LA Bureau of Street Lighting (BSL)** collaborates with LADWP to install EV chargers on existing street light poles, taking advantage of the power source and the load available after switching the lighting to LED. Staff said the coordination between BSL and LADWP is strong. The two agencies are working together to potentially upgrade circuits to enable the installation of fast chargers. LADWP provides rebates to help fund the installation, and BSL runs all plans by LADWP. BSL is not involved in LADWP's more recent EV Hub project, but staff see it as complementary to the curbside charging program.
- **CARB** runs statewide clean vehicle purchase incentive programs. It does not coordinate directly with LADWP but works with third-party grantees who implement funding. These administrators can work with local utilities within each program's jurisdiction, like LADWP, to support participants' ability to combine (or "stack") different incentives and be aware of the different incentive options. CARB cited their efforts through Access Clean California, a program designed to support the stacking of clean transportation equity incentives. In general, CARB staff said that it is important to encourage incentive stacking and that CARB could potentially play a larger role in facilitating coordination for equity programs.
- We were not able to talk with **SCAQMD**, despite several efforts to do so, but CARB staff said they believe SCAQMD has been working with LADWP on coordinating and possibly facilitating stacking of EV purchase incentives.

UCLA TAKEAWAYS

One of the potential opportunities identified by the LA100 ES study, as well as other studies and stakeholder recommendations, is for LADWP to streamline program applications and enhance customers' ability to claim multiple incentives at once. For example, LADWP could support this "stacking" of incentives by providing a concierge-like service to help customers identify where they could combine EV charging equipment and purchase incentives across agencies.

7. CONCLUSIONS AND NEXT STEPS

Staff from LADWP and several other agencies have provided insights that can lead to more effective equity strategies for the utility. We have compiled many of these insights here and have shared our takeaways on how LADWP — and the City of LA more broadly — can move forward with the most effective strategies to advance equity through the city's energy transition. Here, we provide a final summary of some of the barriers, opportunities, and recommendations highlighted in our interviews and broader work.

7.1. Barriers and Opportunities

Staff from LADWP and other relevant agencies provided useful perspectives on LADWP's barriers and opportunities to advance energy equity in LA.

Many LADWP staff are working to advance equity and would benefit from guidance on how to define what an equitable outcome is, as well as which communities to prioritize when targeting resources and benefits. There are many barriers to advancing equity within LADWP and across the City of LA. While the magnitude of funds and other resources is a dominant one, there are other important challenges, such as approval processes and administrative hurdles, slow or nonexistent hiring of staff, residents' distrust in government agencies, technological complications, and gaps in knowledge across the city.

One of the largest areas for improvement interviewees highlighted is data tracking and management to evaluate equity program effectiveness — a topic of discussion in almost every interview, whether raised by the interviewer or not. Improved data collection and sharing is a clear avenue to improved outcomes for customers and equity goals. LADWP could play a leading role in establishing better collection mechanisms and more transparent sharing of energy data in LA. This is a crucial goal to keep in mind as LADWP revamps its EMDI platform with UCLA researchers' support.

A second large area of interest is citywide customer and community engagement. Particularly in the areas of electric vehicles, building electrification, thermal comfort, and tenant protections, it is clear that there could be strong benefits to developing citywide customer engagement strategies that cut across agency lines. To this end, one interviewee noted that LADWP's customer engagement needs to be conducted in multiple languages, an area in which the utility is making efforts but lagging.

7.2. Recommendations for LADWP's Equity Strategies Implementation

Several recommendations for improving the equity of LADWP's services and program offerings emerged from our interviews and broader observations throughout our work with LADWP staff. Some of these have already been discussed above, including the ideas for a large data gathering and sharing push and for an interagency community engagement effort to streamline customer experience when multiple agencies are involved in building electrification.

Best Practices for Program Design

In general, interviewees recommended being strategic about allocating program resources and benefits. Most recommendations were consistent with the LA100 ES study. For example, interviewees suggested the following:

- Distribute benefits according to need, not first-come, first-served, but based on where they are needed and where historical harm has occurred (e.g., based on disadvantaged community status).
- Rebates often don't help the most vulnerable customers, who may not have the funds to make an initial purchase. Ideally, programs should be designed to provide resources up front.
- Target low-income households, and recognizing that it is not necessarily feasible, to find permissible options to target in-need households (such as geographically by relevant risk factors like heat exposure).

Beyond our interview findings, we draw from a forthcoming report — “Feasibility and Applicability of Emerging Utility-Led Innovations in Addressing Affordability” — to suggest other equity-oriented program modifications. This report pertains to water and wastewater utilities, but many of its findings are useful for power system programs (Shimabuku et al). For utilities developing affordability programs, it recommends “leading practices” to gain support for the program and design it effectively, partner with other organizations, conduct communications and outreach, and evaluate the program's success. Recommendations relevant for LADWP include the following:

- **Gain support:** Build trust among customers through partnerships with trusted, local organizations and consistent communication with stakeholders throughout implementation.
- **Design programs:** Provide multiple resources, including going beyond monetary assistance, that are tailored to customer needs. LADWP already heeds these recommendations in many ways, but this recommendation underscores the importance of reviewing program offerings to look for opportunities to tailor resources to different customer groups and to point customers toward non-LADWP support as well.
- **Develop partnerships:** Partner with community organizations as equal partners, not only as outreach tools, to raise awareness, understand customer eligibility and enrollment needs, enroll customers, and actually implement programs.
- **Engage customers:** Tailor outreach to meet customers where they are and minimize the burden on customers for application and enrollment. LADWP staff working on customer engagement would benefit from examining Section 4.5 of the report when it is released. The report stresses that utilities should not forget internal communications. For a utility as large as LADWP, change management and collaboration across teams are essential parts of equitable change.

- **Measure and evaluate:** Consider potential metrics that fall into categories parallel to those LADWP and UCLA are currently developing: outcome-based metrics and implementation-based metrics (what we currently refer to as “program metrics”).

Improved Participatory Processes

Some interviewees indicated that LADWP’s community engagement processes, including the Equity Strategies Advisory Committee, could improve. Where there are gaps in technical knowledge, more effort must be made to bridge the gap and ensure the people who will be affected by decision-making have the information needed to fully understand all implications. A staff member from an external agency suggested that a concrete strategy to this end is to improve public data sharing, making more information available in a way that is accessible to the general public. This would resemble efforts in jurisdictions across the U.S. to make government data more publicly accessible.

Additionally, there were recommendations for public-facing meetings to move away from one-way communication (i.e., long presentations with limited time for questions and discussion) as well as to incorporate more small-group discussions. An interviewee put forth the CEMO-hosted community assembly on building decarbonization, described above, as a successful instance of small-group, two-way communication. Another interviewee noted that staff training might be necessary to move beyond typical engagement strategies that government employees are used to and toward more advanced participatory processes.

Strong Equity Definition and Goals

In spite of the equity interest revealed by our interviews with program staff, the research team has observed that many LADWP staff appear hesitant or unable to identify more ambitious strategies to address energy inequity. Part of the reason for this appears to be the need for a clear utility-wide definition of equity, as well as identification of goals the utility is working toward to achieve equity.

LADWP staff’s understanding of equity, as shared in the interviews, was largely limited to distributive justice — working toward fair distribution of resources on the basis of household income, community-level environmental burdens, and socioeconomic challenges. LADWP operations would benefit from a broader definition of equity that includes procedural and recognition justice. LADWP staff were concerned about procedural justice in terms of information gathering (surveys, focus groups), awareness building (flyers, emails), and trusted messengers (contracting CBOs), but did not mention increasing customers’ ability to influence decision-making processes. A concerted effort to apply these three dimensions — distributional, procedural, and recognition justice — could strengthen efforts targeted to each dimension.

Specific and Ambitious Strategies

LADWP’s potential equity action plan must lay out ambitious strategies backed by specific details and concrete targets. The plan has to show how the utility will address the inequities the LA100 ES study revealed. Across our interviews and other work with LADWP staff, we have

seen opportunities to increase specificity and creativity, both of which will be necessary to address the inequities present in LA's energy system. In some instances, staff have presented existing strategies as a complete plan, with little increase in ambition. In others, staff note that they hope to improve outcomes in certain areas, but have not specified how. In some instances, we heard about actions that are already underway but not thoroughly reported on. These, too, should be included in an action plan to ensure the public can see everything LADWP is doing.

The strategies listed in an action plan, therefore, should address the following questions:

- How will each strategy address inequities highlighted in the LA100 ES study or by LADWP's equity stakeholders, including the Equity Strategies Advisory Committee?
- What specific actions will be taken to ensure the success of each strategy?
- What are the plan's concrete goals and targets? How will progress be measured?
- Who will be responsible for achieving those goals, and who else will be involved from LADWP and other agencies?
- How will LADWP lay the groundwork for ambitious strategies that may not be feasible now?

7.3. Ongoing Research and Support

The UCLA research team continues to provide support to LADWP staff by request in several areas, including the following:

- Honing strategies for measuring program effectiveness and equity implications
- Crafting appropriate definitions for target communities and customers for LADWP's equity-focused resources and benefits
- Providing insight on how to reach target customers and receive customer feedback
- Developing understanding of, and strategies to address, extreme heat impacts, residential thermal comfort, EV charging access and affordability for multifamily building residents, and other specific topic areas
- Analyzing the impacts of the disconnection moratorium for EZ-SAVE and Lifeline customers

We plan to continue to support LADWP staff in the following ways:

- Advising on the development of an LADWP equity action plan
- Developing a set of outcome-oriented metrics to revamp and replace EMDI with more actionable, digestible, and transparent reporting
- Assisting in the establishment of a long-term, funded, formalized community advisory body with a clear role for involvement in decision-making
- Supporting the definition of target communities for LADWP's equity work
- Analyzing program effectiveness, energy affordability, and impacts of operations

UCLA TAKEAWAYS

A crucial piece of LADWP's future equity work will be the institutionalization of its Equity Strategies Advisory Committee (or a revised version of this body). This body has the potential to provide an ongoing avenue to achieve deep levels of trust, participation, and empowerment among LADWP's customers. Establishing a long-term, formalized body of community members and partner organizations could provide a critical mechanism for community participation in LADWP's equity strategies and potential action plan. The body should have a formal relationship with LADWP staff and the Board, including representation at LADWP Board meetings. It will be important for such a body to be established with thoughtfulness so its role in decision-making is clear, participants are compensated appropriately for their time and expertise, and members represent individuals and communities who are affected by energy inequity in LA.

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