



Los Angeles 100% Renewable Energy Equity Strategies

Advisory Committee Meeting #7

February 22, 2023

Summary¹

Schedule and Location

Wednesday, February 22, 2023, 10:00 a.m. to 12:00 p.m.

Conducted virtually

Virtual Meeting #7 Attendees

Advisory Committee Members

Center for Energy Efficiency and Renewable Technologies (CEERT), V. John White
Civil & Human Rights and Equity Department, Joey Garcia (alternate)
Council District 03 – Councilmember Bob Blumenfield, Jeff Jacobberger
Council District 05 – Councilmember Katy Yaroslavsky, Kristen Torres Pawling
Council District 09 – Councilmember Curren Price, Sherilyn Correa
LA Cleantech Incubator, Mayte Sanchez
Los Angeles City Planning Department (LACP), Shana Bonstin (alternate)
Los Angeles World Airport (LAWA), Laura McLennan (alternate)
Neighborhood Council Sustainability Alliance (Advisory Committee), Ernie Hidalgo
Office of Public Accountability (Rate Payer Advocate), Fred Pickel, Camden Collins (alternate)
Office of Sustainability, Chrissy Anecito (alternate)
Office of Los Angeles Mayor Eric Garcetti, Paul Lee (alternate)
Port of Los Angeles (POLA), Carlos C. Baldenegro
Port of Los Angeles (POLA), Amber Coluso (alternate)

LADWP Staff

Andrew Kwok
Anton Sy
Ashley Negrete
Carol Tucker
Dawn Cotterell
Iris Castillo
Jason Rondou
Mudia Aimuwu
Pjoy Chua

¹ This summary is provided as an overview of the meeting and is not meant as an official record or transcript of everything presented or discussed. The summary was prepared to the best of the ability of the notetakers.

LA100 EQUITY STRATEGIES



Ramon Gamez
Robert Meteau Jr.
Simon Zewdu
Steve Baule

Project Team

Alana Wilson, National Renewable Energy Laboratory (NREL)
Bingrong Sun, NREL
Eda Giray, NREL
Kate Anderson, NREL
Megan Day, NREL
Nicole Rosner, NREL
Patricia Romero-Lankao, NREL
Sonja Berdahl, NREL
Paul Ong, UCLA
Rachel Sheinberg, UCLA
Stephanie Pincetl, UCLA
Christian Mendez, Kearns & West
Jasmine King, Kearns & West
Joan Isaacson, Kearns & West
Robin Gilliam, Kearns & West
Joe Koh, LADWP Consultant



Welcome Remarks

Joan Isaacson, facilitator from Kearns & West, welcomed members to the seventh Los Angeles 100% Renewable Energy Equity Strategies (LA100 Equity Strategies) Advisory Committee meeting. She introduced Simon Zewdu, Director of the Transmission Planning, Regulatory, and Innovation Division, to provide opening remarks.

Simon Zewdu welcomed Advisory Committee members to the meeting, noting that this was the first Advisory Committee meeting of 2023. He stated that it will be an important year for LADWP, as the LA100 Equity Strategies study will conclude in June 2023, and he highlighted the progress made by both the Advisory Committee and Steering Committee. He shared that the Advisory Committee has been convening for a year and a half and that the Steering Committee has provided guidance and insights on community priorities and helped to identify strategy development pathways. He stated that during the meeting, the NREL project team would share preliminary findings as well as highlights of the input gathered. Simon Zewdu shared that he would later address LADWP's plans to ensure the continuity of this work beyond the LA100 Equity Strategies process.

Meeting Purpose and Agenda Overview

Joan Isaacson reminded members that the Advisory Committee was formed to work in parallel with the Steering Committee, with the purpose of receiving updates and reports of presentations and discussions from the Steering Committee meetings and sharing helpful information about partnerships and implementation opportunities. Joan Isaacson then reviewed the meeting agenda (see slide 3 in Appendix), noting that the project team would provide updates on the community listening sessions, preliminary results on transportation, and reports from UCLA on both legal and regulatory constraints and the ethnic business study. She stated that there would be opportunities for feedback and questions from Advisory Committee members throughout the meeting. Joan Isaacson reminded members about the guides for productive meetings and keeping input concise due to limited time. She said that members should continue to use the raise hand feature and chat to participate.

Equity Strategies Process Update

Megan Day, LA100 Equity Strategies Project Manager and NREL Senior Energy Planner, provided an update on the LA100 Equity Strategies process (see slide 5 in Appendix). She stated that the project team is moving through the phase for preliminary results from the community listening sessions, input, and modeling. She said that preliminary results from LA100 Equity Strategies on transportation and other topics would also be shared in this meeting as well as the April Advisory Committee meeting. Results across the additional topic areas will also be reported at upcoming meetings.

Community Listening Sessions Update

Patricia Romero-Lankao, LA100 Equity Strategies Technical Lead from NREL, provided an update on the community listening sessions, noting that NREL would be sharing the first part of the findings (affordability and burdens, and access/actual use) at this meeting and the second part during the April



Advisory Committee meeting. She stated that the presentation would cover the community listening sessions' goals, analytical approach, methods, and key preliminary findings, with an opportunity at the end to ask questions.

Goals and Analytical Approach

Patricia Romero-Lankao stated that the primary goals of the community listening sessions included examining community-identified priorities and needs, causal factors of energy inequities (i.e., what has contributed to inequitable outcomes), actions needed to address inequities, and associated equity outcomes. The map, she explained, shows where the listening sessions took place and the community-based organizations (CBOs) that partnered with NREL (see slide 9 in Appendix).

Patricia Romero-Lankao described how the community listening sessions fit into the energy justice tenets through recognition and procedural justice. She explained that the experiences and knowledge shared by participants help to identify key problems, actions, and desired outcomes of historically excluded communities. This input, Patricia Romero-Lankao noted, is informing the modeling done by NREL technical teams, explaining that NREL developed a just energy transitions analytical approach to guide the process of using community input to inform the modeling.

Patricia Romero-Lankao next described the just energy transitions analytical approach (see slide 11 in Appendix). The analytical approach considers causal factors and impact areas that inform the "problem space," which then determines the actions that inform the "solution space." Each of these components is influenced by a set of values, or what a person or group considers important in life. She explained that community listening session participants identified equity actions and strategies that resolve potential barriers to achieving just energy outcomes. Actions can involve programs, subsidies, and investments, as well as how they are designed and implemented. She highlighted that these identified actions are the means to achieve more equitable energy outcomes, where energy outcomes are the ultimate changes a policy or program will yield. Essentially, the energy outcomes are foundational to operationalizing energy justice.

Patricia Romero-Lankao then introduced questions for the Steering Committee (see slide 12 in Appendix). She explained that operationalizing means moving from abstract ideas towards implementable actions and ideas to see the LA100 Equity Strategies actualized, or making sure conceptual ideas become implementable and actionable equity solutions/policies that benefit all Angelenos in this transition.

Methods

Patricia Romero-Lankao described the methodology for the community listening sessions, which consisted of two rounds of listening sessions conducted across five regions (see slide 14 in Appendix). The first round included five sessions with 36 virtual participants and the second included 10 sessions with 103 in-person participants. NREL and LADWP partnered with CBOs and recorded the sessions, and then transcribed and analyzed the information.



Across four general phases of the community listening sessions, two feedback loops were incorporated for community input (see slide 15 in Appendix). She reviewed the four phases, the first being the pre-listening session that included preparation and planning for the meetings. The second phase was the listening sessions. Then, in the post-listening sessions phase, input from listening session participants was shared with NREL technical teams. As the NREL team grounds findings in the fourth phase, another feedback loop remains open for community members as the equity strategies are developed. Importantly, she noted, the project team has worked to conduct a transparent and sustained process by ensuring a feedback loop throughout the phases.

Patricia Romero-Lankao stated that the presentation today would focus on affordability and burdens and access/actual use. She noted that the project team arrived at these topics through literature documenting historical legacies of systemic practices, policies, and factors influencing the current inequities. Patricia Romero-Lankao then shared a chart showing how input in the listening sessions was distributed across outcomes, causal factors, impact areas, and values.

Key Preliminary Findings

Patricia Romero-Lankao prefaced the preliminary findings with a recurring ethical principle shared by a participant during a community listening session in South Los Angeles (see slide 19 in Appendix). They stated,

The very definition of equity, which we spent a lot of time talking about. And even now, those of us who have been disadvantaged are sometimes uncomfortable with. Means it's not about how much. It means that we've all made a commitment that, until we catch up, nobody else gets anything. So more and more of it becomes ours. Because we have been inequitably treated. But what we want to know is, how is it proceeding.

Patricia Romero-Lankao explained that from an equity perspective, NREL is sharing what was heard from participants as it relates to LADWP. However, she noted some identified problems and recommendations relate to actions beyond LADWP's purview. Importantly, Patricia-Romero Lankao noted identified strategies must be aligned across city agencies. She then overviewed the preliminary findings in the area of recognition justice.

In the problem space, Patricia Romero-Lankao explained, listening session participants identified key factors of concern, including historical inequities present in current policies and practices as well as intersectional structural factors that produce current inequities (see slide 20 in Appendix). Key impacts of concern included lack of access to financial capital, poor quality and maintenance of infrastructure and housing, and lack of affordable home ownership. Patricia Romero-Lankao highlighted participant-identified actions in the solution space (see slide 20 in Appendix), such as tailoring strategies for debt relief, co-developing eligibility and expanding the reach of programs, redressing and repairing unsafe and inefficient infrastructure and housing, and improving regulation, enforcement, and monitoring (retrofits). Ultimately, she shared, listening session participants identified equity outcomes such as program access and benefits, as well as efficiency and safety in housing, transportation, and infrastructure.



Nicole Rosner, Community Engagement and Energy Justice Researcher with NREL, shared several quotes from listening session participants, selected because they represent recurring themes. She noted that one action identified by communities included tailoring strategies for debt relief and preventing the accumulation of debt (see slide 21 in Appendix). The participant shared,

If the bill was split from [the] starting of the pandemic, to where you said it's over. If that bill was split between what you owe presently and then you work out a payment plan for people, I think that it would be a win-win, and then these improvements can happen, the bills still get paid, water and power does get their money, the people are satisfied. But I haven't seen it ... when the pandemic happened 2.5 years ago, take what that number was to present when you said utility moratorium is over, stop it right there. Look at what that is, then make that be another bill that you'll have to pay into to get it down but keep the present bill as it is, that's going on right now.

Nicole Rosner stated that another suggested action was co-designing equity programs to prioritize energy and housing security (see slide 22 in Appendix). The intention around this action is to not only upgrade homes but to include strategies that protect community access, similar to programs like the [Transformative Climate Communities \(TCC\) program](#). As one participant shared,

The owners, if they upgrade the stuff, they're going to raise the rents ... thank god we live in a rent-controlled area ... if you don't live in a rent controlled area, you got to think real carefully if this would, if you want that problem, sometimes it's not for you, basically just try to live with the appliances that you have and upgrade the appliances you have and tell your owner to change the plugs, because at the end of the day you don't want no car that you can't afford ... when you live in an old building, and they upgrade the electric and they upgrade the floors and all this stuff it's going to affect people's rent because they're not in a rent-controlled [area] ... a lot of people won't be able to stay where they're at. So, they're asking to add some more onto that with the car and electric and all that, make sure you can afford it.

A third action highlighted by Nicole Rosner included developing programs to safely upgrade and remediate existing housing and infrastructure (see slide 23 in Appendix). A participant stated,

While I appreciate raising the concern about addressing current infrastructure, insuring up that infrastructure. I also wonder if there is a plan to remediate some of the infrastructure that currently exists in South LA that is problematic, in terms of known adverse health outcomes ... one thing is capacity. Does our infrastructure have the capacity to deal with these things. But ... just in terms of – from what I understand from the community – there is a sense of neglect. In terms of the outdated infrastructure that needs remediation ... I'm hearing discussions about what are we going to do to fix, improve the infrastructure to make way for new. But how are we going to remediate the old? And I think that's also about building trust in the community ... Where is the plan to remediate some of the things that currently are causing damage and have been causing damage for quite some time now?



Nicole Rosner then reviewed another action listening session participants identified on recognition justice – to improve city regulations, accountability, and enforcement as key measures to address aging infrastructure in their communities (see slide 24 in Appendix). She explained that these regulations exist beyond LADWP's purview, but in the meantime, LADWP can provide information and recommendations for service providers that will benefit the community. One participant shared,

There's a lot of barriers, especially with old houses, and Boyle Heights has a ton of old houses. Or they have houses that are old that were flipped. Like a friend of mine just bought a house on Lorena, and the flipper just basically hid all the old stuff in there and when he found out that basically it was a fire hazard for him to have these old electrical wires ... The regulations just aren't there and there's no support for families who can't afford to fix these things. And it's not necessarily families' faults that this is happening, or homeowners' faults, or renters.

Patricia Romero-Lankao then overviewed preliminary findings in the area of procedural justice (see slide 25 in Appendix). She shared causal factors identified by community members that include top-down decision-making and a lack of transparency, continuity, and accountability. Patricia Romero-Lankao then shared some impacts identified, such as mistrust and grievances, and a lack of accessible and usable information. In the solution space, listening session participants identified key actions, such as entrusting communities with decision-making power, continuous transparent community engagement processes, and active, sustained engagement in program design, implementation, and evaluation. Lastly, she shared the participant-identified equity outcomes, including improved accountability, responsibility, and inclusive decision-making.

Nicole Rosner overviewed specific participant responses on the identified actions for procedural justice. One participant suggested co-designing community outreach from design and implementation to evaluation, with local, trusted messengers (see slide 26 in Appendix). As they put it,

I think education needs to be upfront. And it has to be education directed to the lower income people and also moderate-income people. Who, frankly, aren't convinced that electric is the way to go. Second, when it comes to churches. Churches have historically been the way that a lot of education is disseminated. A number of pastors in small churches, medium size churches, aren't on board yet. It's going to be difficult to push this forward without them. I would also like to see ... the churches maybe, if you are talking electric vehicles, I would also like to see a partnership with the churches. And maybe these electrical stations, maybe they receive that. Education happens in front of the churches as a catalyst to bring people onboard.

Another action identified by participants was the need for guaranteed continuity, transparency, and accountability in community engagement, Nicole Rosner stated (see slide 27 in Appendix). One participant shared,

For continuity's sake ... when they come back again, they should at least keep somebody on board. And bring the others back. Because every time you [LADWP] start over, they are starting from a deaf point of view. If you've already been involved, you've heard the message, you at



least have a perspective, a context. And you have a lens by which to hear and see what's going on. They [LADWP] keep starting over the same.

And lastly, Nicole Rosner highlighted a participant-identified action on regulating predatory solar providers (see slide 27 in Appendix). As one participant stated,

We were going to hire a company for that ... they said they did not charge anything. But ... the moment we wanted to install it, they were charging us. So, we canceled that, because they said one thing and then they said another. And I already told the neighbor, and he told me, 'don't believe that.' He says, 'They just come and install it, and when the time comes ... they tell you to sign, and your bill will arrive.' And that is why we have not installed it, for the same reason.

Patricia Romero-Lankao thanked the CBOs for partnering with NREL and LADWP. She thanked the participants of the listening sessions and also gave a special thanks to Dawn Cotterell at LADWP for coordinating all of the scheduling and participating in all of the sessions. She then invited the Advisory Committee members to address the following questions:

- How can we operationalize the justice and equity principles laid out by Angelenos in this process?
- Are we forgetting any "causal factors" of current energy inequities?

No questions or comments were contributed by Advisory Committee members.

Transportation Preliminary Results and Draft Strategies

Megan Day, LA100 Equity Strategies Project Manager and NREL Senior Energy Planner, presented an overview of some preliminary results and draft strategies for transportation. She stated modeling and analysis is being done across different teams to develop 10 prioritized pathways, with the focus of this presentation being on equitable electric vehicles (EV) and charging access and multimodal strategies for reduced transportation energy burdens. First, Megan Day reported on the status of LADWP's current EV charging investments. She shared that 75% of incentives went to households in non-disadvantaged communities (DACs), and \$71 million in incentives disproportionately benefitted predominantly White, non-Hispanic, home-owning, and wealthier neighborhoods.

Next, Megan Day showed the distribution of the incentives (see slides 33-34 in Appendix). She explained that NREL analyzed whether the census tract where incentives were received reflected the following characteristics: Non-DAC/DAC, Mostly White/Mostly Non-White, Mostly Non-Hispanic/Mostly Hispanic, Mostly Owners/Mostly Renters, Above/Below Median Income. On the map (see slide 35 in Appendix), areas in orange reflect where the percentage of households is greater than the percentage of incentives received, while green areas reflect where the percentage of incentives received is greater than the percentage of households.

Megan Day shared that NREL also looked at the distribution of public EV charging stations (see slide 36 in Appendix). There was no statistically significant difference between Non-DAC/DAC, Mostly White/Mostly Non-White, Mostly Owners/Mostly Renters, and Above/Below Median Income



communities, but there was a statistically significant difference between Mostly Non-Hispanic and Mostly Hispanic communities, where the non-Hispanic communities have more charging stations than Hispanic communities.

Equitable Light-Duty Electric Vehicle Access and Charging

Megan Day reviewed preliminary results on the distribution of used EVs and what that may look like over time (see slide 40 in Appendix). NREL modeled EV adoption in a business-as-usual scenario where by 2035, around 30% of used EV consumers are estimated to include households that make less than the median income. Additionally, she shared that approximately 40% of predicted Los Angeles EV consumers living in multifamily buildings will not have access to power outlets near where their vehicles park. This illustrates the need to consider charging for multifamily households and renters, she emphasized.

Preliminary findings on used EV prices where NREL modeled household expenditures (see slides 41-42 in Appendix) were then presented. Megan Day stated that with federal and city rebates, purchasing a standard used EV can maintain or lower household transportation expenditures for moderate-income households. Home charging access can make the difference between used EV adoption increasing or decreasing expenditures for low- to moderate-income households with household charging access reducing household expenditures. Lastly, combining rebates can mean additional EV models can lower costs for low- to moderate-income households.

Electric Vehicle Charging

Alana Wilson, Technical Lead on Transportation at NREL, introduced the EV charging topic. She overviewed NREL's analysis of the time spent charging for EVs that received an LADWP rebate for charging time-of-use rate sub-meters (see slide 42 in Appendix). Findings show that across 35 locations, 20% of charging occurs during peak electricity hours. Alana Wilson highlighted one key finding that charging profiles vary by customer type, so looking at different customer types is essential.

Preliminary results on the 2035 EV charging business-as-usual scenario were then reviewed. In this scenario, explained Alana Wilson, charging occurs predominantly in West Los Angeles, indicating that EV adoption and charging access and benefits will continue to be heavily inequitable without a deliberate program and incentive equity focus.

Multimodal Transportation

Alana Wilson showed a map that illustrates transportation disadvantages (see slide 45 in Appendix). She explained that red areas indicate where households are disproportionately eligible for the e-bike benefit, as 50% of households do not have nearby access to bike infrastructure. The yellow areas on the map indicate existing bike infrastructure.

Bingrong Sun, Transportation Researcher at NREL, presented initial priority areas for multimodal transportation strategies (see slide 46 in Appendix). She overviewed three criteria for the analysis, including the percentage of homes with no cars, access to transit services, and if the area is identified as



a DAC in [Senate Bill 235](#) (SB235). Bingrong Sun noted that NREL identified 19 traffic analysis zones, which are the initial study focus for the multimodal strategy analysis. In the analysis, she explained, NREL explored three strategies, including shared e-bike access, shared EV access, and improved transit. Bingrong Sun described how the table (see slide 47 in Appendix) shows an evaluation of how much money and time can be saved with each strategy. She stated that the best strategy differs by neighborhood. Ultimately, NREL found that EV car sharing could substantially reduce transportation time and increase access to opportunities in neighborhoods with very low car ownership rates.

Alana Wilson overviewed the equity strategies for transportation (see slides 50-52 in Appendix). She stated that in terms of EV access and benefits, based on the analysis, one equity strategy includes establishing a purchase price cap and/or household income threshold for LADWP used EV incentives. Alana Wilson noted that modeling is currently underway to identify incentive thresholds for affordable EV access. Additionally, NREL has proposed a strategy for LADWP to partner with CBOs to target incentive outreach to DACs, renters, and multifamily home residents. Other strategies regarding EV charging access included providing at- or near-home charging access for renters and multifamily residents to enable more equitable purchase and EV charging options, as well as providing support (e.g., vouchers) for those relying on public charging and developing public charging in DACs.

Regarding multimodal transportation, Alana Wilson shared that NREL focused on zero-vehicle households. She stated that the proposed equity strategies included providing a portfolio of options, including EV car-share, e-scooter, programs in low-income census tracts with low vehicle ownership, and pairing e-bike incentives with bike infrastructure expansion and charging.

Legal and Regulatory Constraints on Ratemaking

Rachel Sheinberg, Researcher with UCLA School of Law, presented on legal and regulatory constraints on ratemaking. She started by outlining considerations for setting rates, noting that LADWP must take into account a variety of laws, such as Propositions 218 and 26, and other local and state regulations that impact affordability (see slide 56 in Appendix).

Many agencies and governing documents affect LADWP ratemaking, Rachel Sheinberg explained. At the state level, LADWP must comply with the state constitution, including Propositions 13, 218, and 26; statutory law; and administrative law. On issues involving transmission across state lines, the department must comply with Federal Energy Regulatory Commission laws and regulations, she noted.

In California, utility regulations fall under the Public Utilities Act, which concerns the three major investor-owned utilities (Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric), Rachel Sheinberg explained (see slide 58 in Appendix). Other publicly owned utilities, such as LADWP, are regulated by the Public Utilities Code. According to Section 386 of the Public Utilities Act, each local publicly owned utility must ensure low-income families have access to affordable electricity, that the current level of assistance reflects the level of need, and that low-income families are afforded no-cost and low-cost energy efficiency measures that reduce energy consumption. Furthermore, she shared, the local utility shall consider increasing the level of the discount or raising the eligibility level for any existing rate assistance program to be reflective of customer needs.



Rachel Sheinberg next described ratemaking in Los Angeles' charter. Sections 670 and 684 of the Los Angeles City Charter establish that rates are set by the Board of Water and Power Commissioners and approved by City Council ordinance. The charter also indicates that rates shall be "uniform for customers of similar circumstances" but can take into consideration "nature of uses," "quantity supplied," and "value of service." Rates need to be comparable to or less than rates in surrounding regions.

Regarding state propositions, she first explained that Proposition 13 limited property tax collection to 1% of property values, which cut municipal tax revenues in half. Adopted in 1996, Proposition 218 limited local government's ability to levy non-property taxes without voter consent. Rachel Sheinberg shared that in 2010, Proposition 26 redefined many fees as taxes and inserted new definitions of taxes. Because of those changes, it is difficult for municipalities to impose new fees without voter approval. Importantly, general taxes require a simple majority vote (50%), and special taxes require a super-majority vote (66%) for approval, she noted. LADWP rate increases for equity purposes would probably fall under special taxes, Rachel Sheinberg explained, meaning they would need super-majority approval on a ballot initiative.

Rachel Sheinberg described the implications for rates and affordability as a result of the legal and regulatory constraints (see slide 65 in Appendix). She explained that proposed changes to LADWP's rate structure will likely be scrutinized in the context of Propositions 218 and 26. Unless explicitly approved by voters, changes like an increased rate paid by non-disadvantaged customers to subsidize more robust or complex discount programs might be viewed as an "unlawful tax." However, Rachel Sheinberg emphasized, some researchers have found that the current system is inequitable across a wide range of outcomes and thus, it could be argued that not adopting more robust discount program(s) is problematic in the context of the Public Utilities Code requirements for serving low-income residents.

Rachel Sheinberg noted that the LA100 Equity Strategies work is being conducted to support LADWP and the community in identifying the most impactful rate changes and affordability strategies for implementation. Most of the studied strategies would require a successful city-wide ballot initiative to be implemented. Lastly, Rachel Sheinberg noted, state and federal funding from programs like the Inflation Reduction Act could also support affordability programs without being subject to Propositions 26 and 218, and LADWP is in the process of applying for this funding.

Simon Zewdu noted the importance of this work and how it will help manage community expectations. These findings will help to inform legislators, policymakers, and community members in revisiting and advocating for changes in the law to ensure programs and projects are developed to alleviate inequities for communities in Los Angeles. He added that LADWP has regular discussions with the city attorney and is looking to use federal funding while it determines a more permanent solution.

Joan Isaacson asked Advisory Committee members, "Do you know of other cities or utilities that are grappling with a similar situation and have taken actions to address rate-structure modification due to limitations imposed by regulations?"



Major Themes from Advisory Committee Questions and Discussion

- Thank you for laying out the issues because this is a complex landscape. We want reiterate that the status quo is inherently inequitable.
 - Rachel Sheinberg: Yes, most research that has been done on how to do this is in other states without these limitations. The UCLA research team will look at energy burdens across Los Angeles and how people use electricity across income levels. The status quo is that everyone is not able to use electricity equitably. This is important to keep in mind.
- Regarding the special taxes in consideration for Propositions 26 and 218, are net benefits considered in compliance? There may be a tax that is assessed, but the net benefit/financial benefit is positive. Is that considered in Propositions 26 and 218? Or is it just that there is a tax that is the issue?
 - Rachel Sheinberg: One, cross-subsidies for low-income discounts are prevented by Proposition 26. The issue is that people should not pay for what they do not directly benefit from. Two, the agency (LADWP) bears the burden of proving the legality of the tax it is imposing. There is some leeway in that sense. If Los Angeles were to change the formula that goes into the tax (Proposition 26), it would be considered an increase to the tax formula. This is explicitly not allowed under Proposition 26. There may be more leeway, but generally it is explicitly clear.
 - Simon Zewdu: LADWP has been grappling with this for a while. The way the law is applied is clear. This is something that has held back LADWP on the changes that need to be made. The merits of the law are to ensure transparency. When discussing equity, this prevents challenges. Tailored programs for DACs are restricted by the current law without a ballot initiative. We want to make sure the study is not constrained by the current law, but also want to ensure LADWP is transparent about what the hurdles are so there can be discussions with policymakers to address this in the future.
- Approximately how long would it take for rate reform to be implemented (if changes are passed)?
 - Simon Zewdu: Likely after the next election cycle in about two years. After the ballot is confirmed, it should not take more than nine months to one year. After the conclusion of this study, LADWP will discuss the next steps and will work with policymakers on how to achieve equity from an energy perspective.

Ethnic Business Study

Joan Isaacson introduced Paul Ong from the UCLA Center for Neighborhood Knowledge. Paul Ong began his presentation on the Ethnic Business Study by sharing that there are different ways to identify businesses, whether by tax returns or business licenses offered by the City of Los Angeles. He noted that out of the 400,000 businesses in Los Angeles, the vast majority are small businesses. What is known from available data, Paul Ong highlighted, is that people of color make up a significant proportion of entrepreneurs. One reason this team highlights small businesses in the LA100 Equity Strategies study is



that they have been hurt by the pandemic in terms of utility debt. Paul Ong noted that to gain additional insights into the small business sector, research must be done to understand affordability barriers and opportunities. He also stated that this research can inform LADWP and other agencies. Importantly, the UCLA team's objective for the research is to collect information, with a focus on small ethnic businesses, to produce a set of analytical briefs for LADWP and other stakeholders.

Paul Ong overviewed the online survey being conducted by UCLA (see slides 72-74 in Appendix). He explained that the survey is offered in multiple languages with region-wide sampling, quality control screening, outreach efforts (with CBOs, chambers of commerce, and business associations serving minority-business enterprises), and participation incentives (\$20 Visa gift cards). Paul Ong shared that the team received 551 valid responses.

Paul Ong highlighted some preliminary results (see slides 75-77 in Appendix), noting they are not intended to represent final results but rather to illustrate information gathered to date. Topics in the initial results include business owner composition, pandemic impact, pandemic assistance, energy burden, current and future climate change impacts, planning for climate change, LADWP transition, and programmatic needs.

Paul Ong emphasized that a significant number of businesses have been impacted by the pandemic and have a high level of need but that barriers exist to receiving assistance. He then shared information about the upcoming joint workshops with LADWP to discuss transition plans and existing and future programs with the ethnic-owned, small business community in Los Angeles. Paul Ong concluded by noting potential future work around detailed analyses and improving program access and participation. He then introduced guiding questions for Advisory Committee feedback:

- Did the preliminary survey results resonate with what you know? Was there anything surprising?
- Are there additional tabulations/analyses/outcomes UCLA should consider based on preliminary survey results?

Major Themes from Advisory Committee Questions and Discussion

- Most preliminary findings on businesses will also relate to the needs of residential customers.
 - Paul Ong: This is absolutely right, but there are distinct challenges. The difference is that running a business involves more complexity than residential homes (e.g., considering safety related to weather events. This is also a huge investment and [small businesses] are more at risk than residents. It is also important to note that many ethnic businesses are run as home businesses, so there is a need to think about policies where business/residence overlap.
- In your work, is UCLA looking at sectors across businesses and considering sector-specific needs in the energy transition?
 - Paul Ong: One sector UCLA has heard from loudly is food service. There is a heavy reliance on gas fuel for cooking and preparation. There is significant anxiety from business owners around the electric transition. Small manufacturing/industrial sectors



also rely heavily on energy use and feel anxiety around future changes in the electric transition. It is also worth noting there are different needs that vary across sectors.

Next Steps for LADWP

Simon Zewdu noted that LADWP has started a good discussion on integrating lessons learned from LA100 Equity Strategies. In the past year and a half, LADWP established the Steering Committee and Advisory Committee. He stated that the Steering Committee is a ground-breaking and new concept to create a space for community-based organizations and to ensure they are part of the decision-making process to shape the research and study.

Simon Zewdu shared that discussions from Steering Committee and Advisory Committee members, as well as community listening sessions, have informed the LA100 Equity Strategies study. He stated that the community listening sessions focused on participants identifying what the transition should look like and what they need from LADWP. Currently, the study will conclude by June 2023, and LADWP is considering how to move forward from there.

LADWP is working on developing a continuous process to ensure long-lasting and durable communication with CBOs, Simon Zewdu explained. He stated that LADWP is planning to develop a long-term Advisory Committee where CBOs will be part of the implementation of LA100 Equity Strategies and hold LADWP accountable. LADWP is considering how to work closely with communities throughout the transition, as well as develop an engagement plan, including academic and local institutions. He also noted that LADWP and the LADWP Board of Commissioners have created and established a diversity, equity, and inclusion (DEI) office, which will play a significant role in overseeing equity achievements and targets.

Simon Zewdu highlighted some of the considerations LADWP is working through, such as how LA100 Equity Strategies fits into new programs, businesses, and contracts; how existing programs can be modified; and how to ensure equity will be part of LADWP's core systems and processes. In the coming months, LADWP will discuss how the community engagement process will proceed, how to maintain momentum from LA100 Equity Strategies, and how to collaborate across the City of Los Angeles and its departments. Ultimately, Simon Zewdu emphasized that long-lasting engagement with communities throughout the transition to 100% renewable energy is a central priority to LADWP, along with embedding equity in everything LADWP will do.

Wrap Up and Next Steps

Joan Isaacson stated that the next Advisory Committee meeting would take place on April 26, 2023, and that subsequent meetings will occur every other month on the fourth Wednesday from 10:00 a.m. – 12:00 p.m. She explained that agenda items will include preliminary results on buildings, air quality and health, local solar and storage, grid reliability and resilience, rates and affordability, transportation, and jobs. UCLA will also present an update on the Energy Atlas. Joan Isaacson thanked Advisory Committee members for their time and continued participation in the meetings.



Appendix

Advisory Committee Meeting #7

February 22, 2023

Presentation Slides



**LA100 Equity Strategies
Advisory Committee Meeting #7
February 22, 2023**



Los Angeles Department of Water & Power (LADWP)

Project Leads



Simon Zewdu
Director
Transmission Planning,
Regulatory, and Innovation Division



Pjoy T. Chua, P.E.
Assistant Director
Transmission Planning, Regulatory,
and Innovation Division



Steve Baule
Utility Administrator
LA100 Equity Strategies Oversight
& UCLA Contract Administrator



Stephanie Spicer
Community Affairs Manager



Agenda

Start Time

10:00 a.m.	Welcome
10:05 a.m.	Meeting Purpose and Agenda Overview
10:10 a.m.	Community Listening Sessions Summary
10:35 a.m.	Preliminary Results: Transportation
11:00 a.m.	Legal & Regulatory Constraints
11:25 a.m.	Ethnic Business Study
11:50 a.m.	Next Steps
11:55 a.m.	Wrap Up and Next Steps



Our Guide for Productive Meetings



Raise your hand
to join the
conversation
(less chat
entries, more
talking)



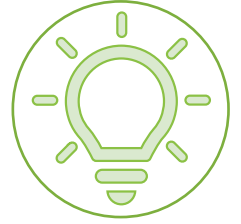
Help to make
sure that
everyone has
equal time to
contribute



Keep input
concise and
focused so that
others have
time to
participate



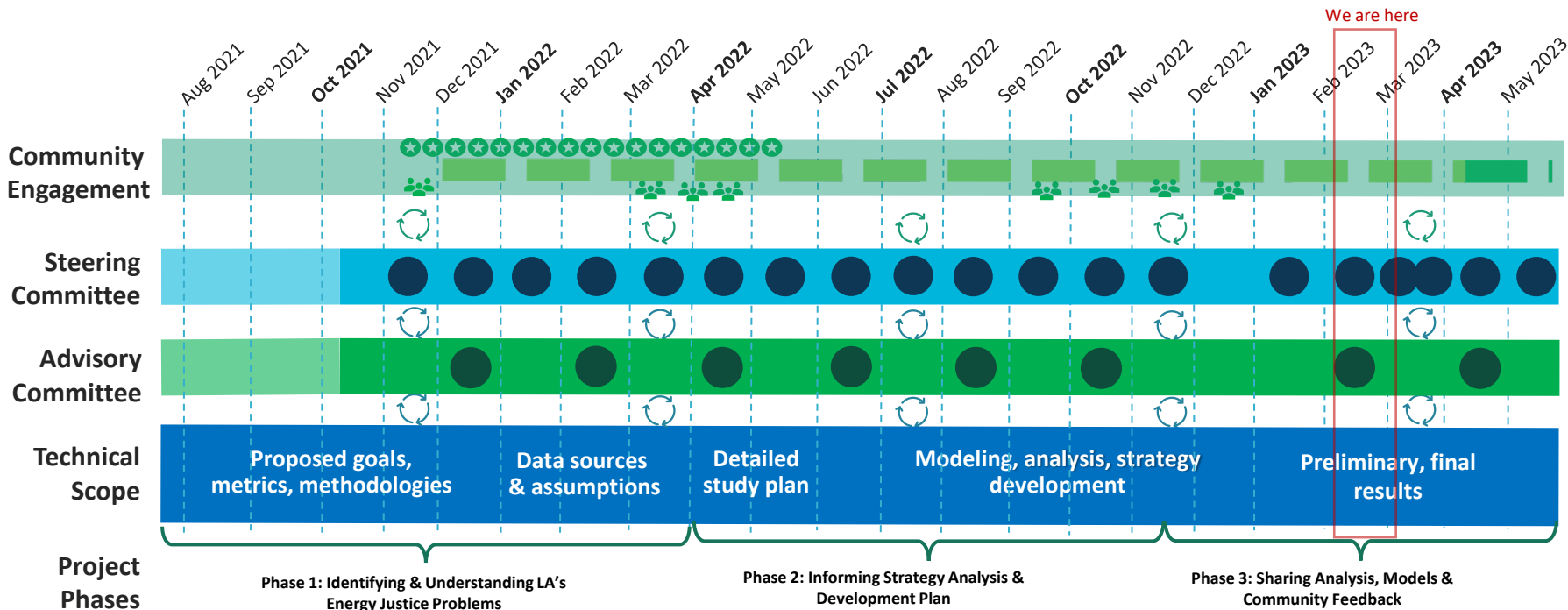
Actively listen to
others to
understand their
perspectives



Offer ideas to
address others'
questions and
concerns

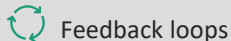


LA100 EQUITY STRATEGIES: TIMELINE & FRAMEWORK



Legend

Key connections



Engagement

- Community Engagement
- Steering Committee
- Advisory Committee

Digital Engagement Phases

- LA100 ES Digital Engagement
- Post-LA100 ES Engagement

Meetings

- Steering Committee
- Advisory Committee

Interviews

- One on One
- Listening Sessions

Community Listening Sessions

Paty Romero-Lankao, Nicole Rosner, Lis Blanco
and Daniel Zimny-Schmitt



Listening Sessions

- 1 Goals and Analytical Approach
- 2 Methods
- 3 Key Preliminary Findings
- 4 Q&A



1

Goals, Analytic Approach, & Steering Committee Feedback



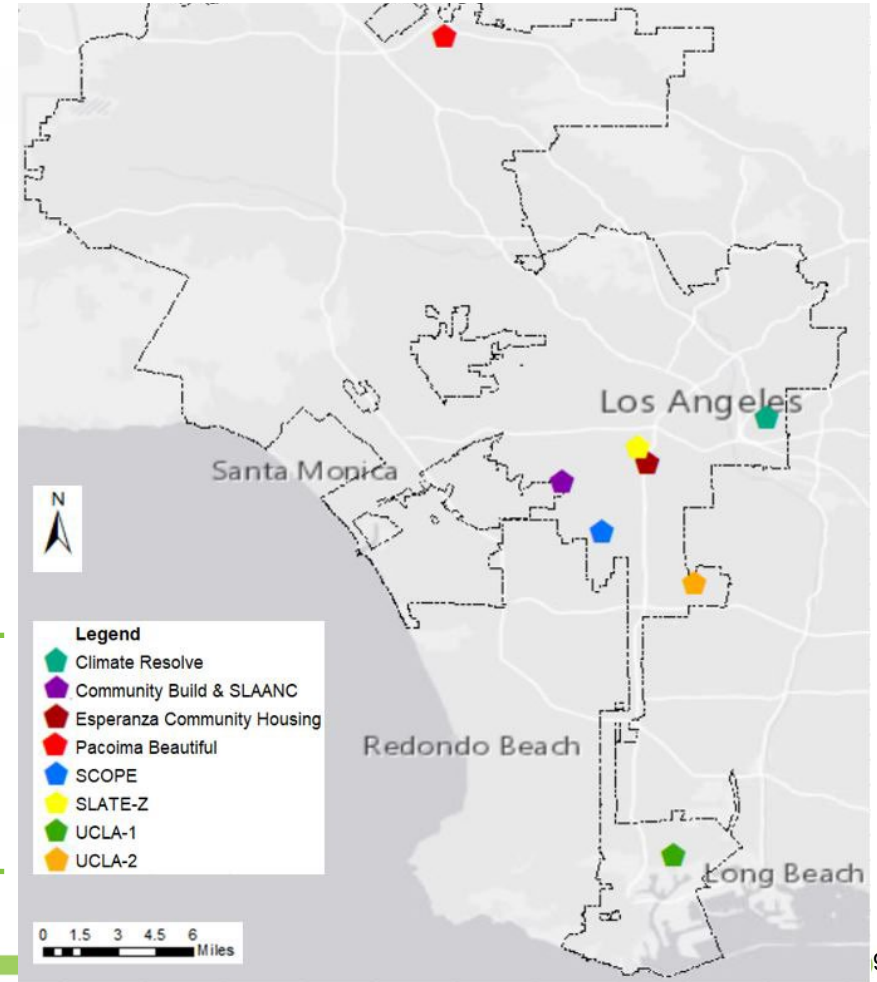
Goals

Examine Community-Identified:

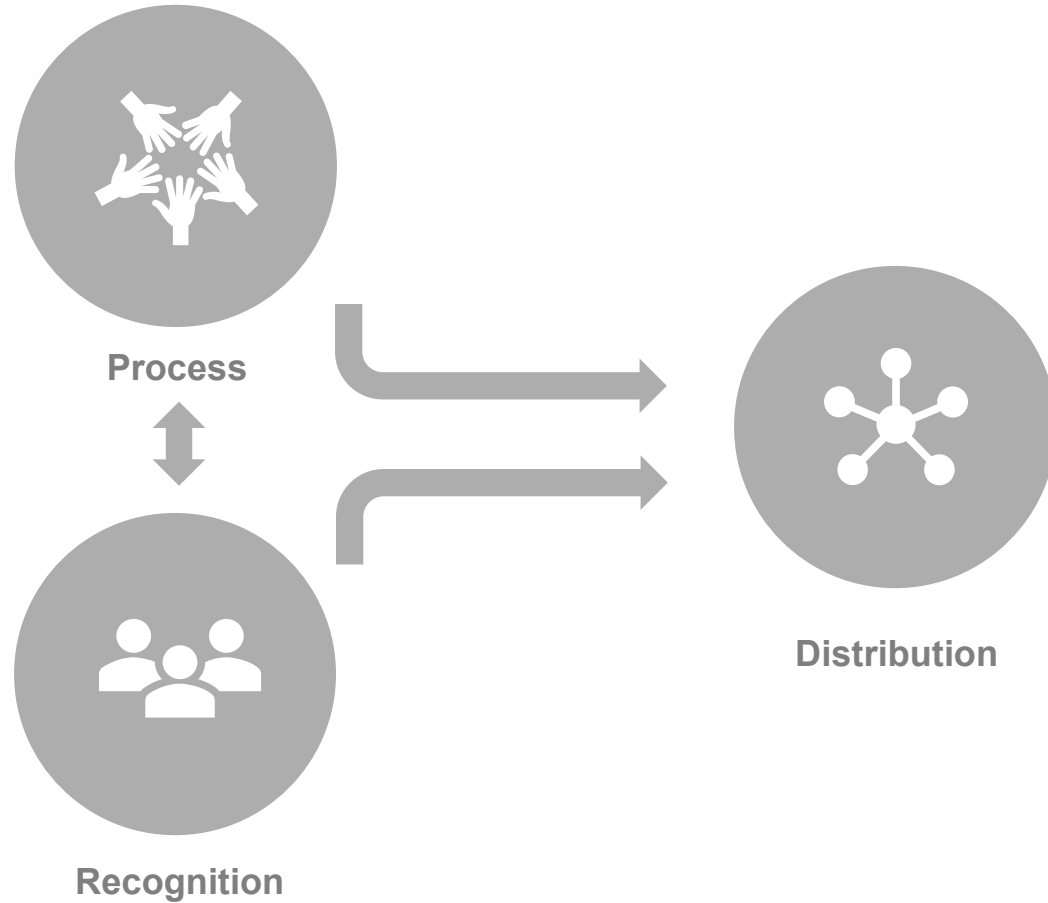
- Priorities and Needs of Disadvantaged Angelinos
- Causal Factors of Energy Inequities
- Actions (Strategies)
- Associated Equity Outcomes

Partners

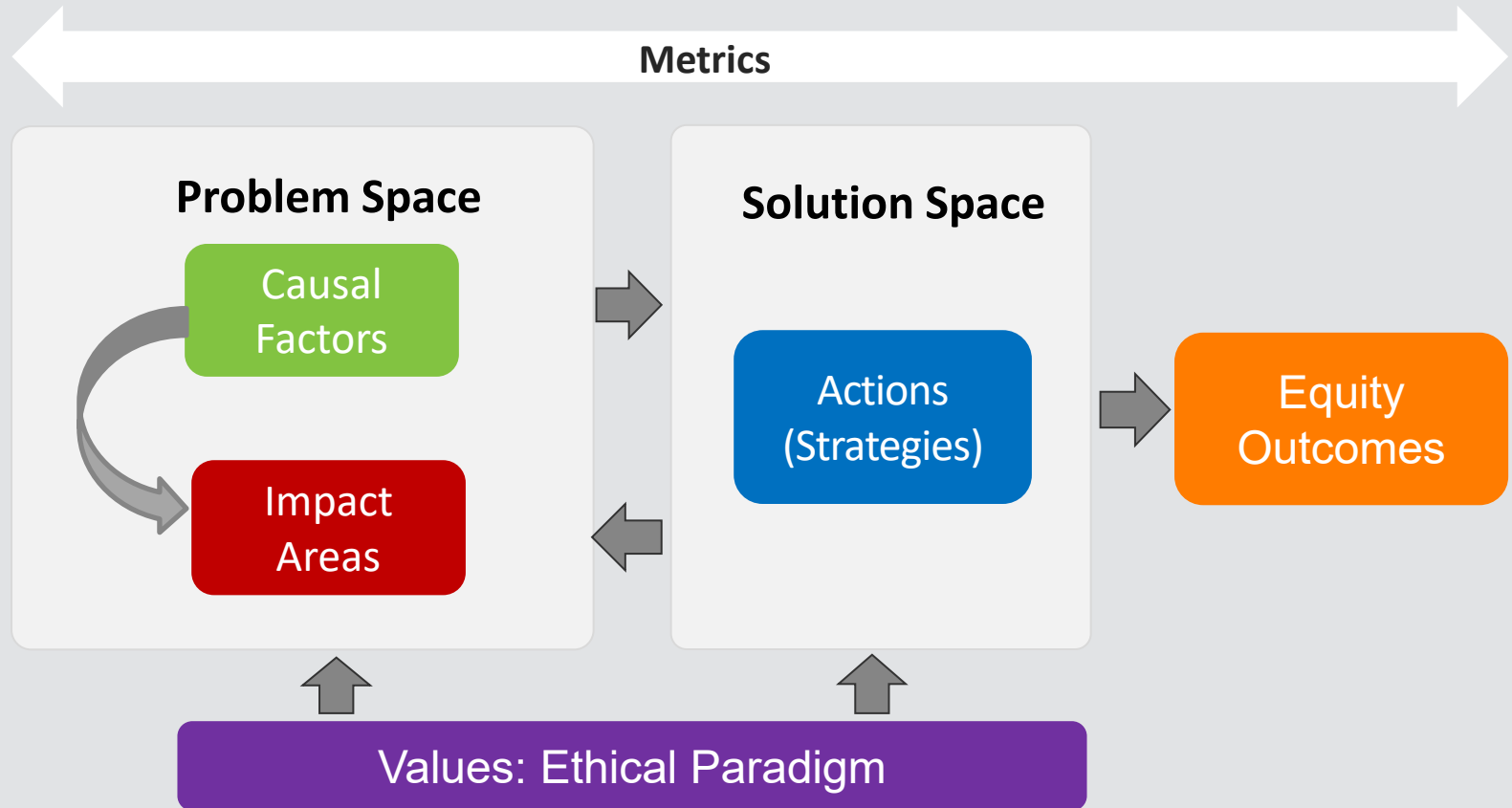
Map of In-Person Listening Sessions



TOWARDS A MORE JUST PROCESS



Analytic Approach



Steering Committee Feedback

1

Process Question:

How can we operationalize the justice and equity principles laid out by Angelinos in this process?

2

Recognition Question:

Are we forgetting any “causal factors” of current energy inequities?



2

Methods



QUALITATIVE DATA COLLECTION METHODS



139 total
participants



5 representative
regions

Round 1



5 listening
sessions



36 virtual
participants

Round 2



10 listening
sessions

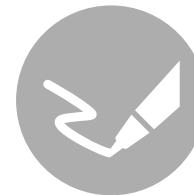


103 in-person
participants

Activities



Partner
with CBOs



Record,
Transcribe
& Anonymize

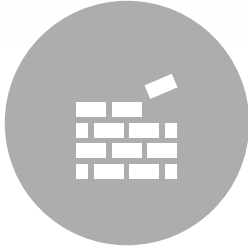


Categorize &
Analyze



Share &
Co-Design
Actions

NREL PROCESS: MODELING IMPACTS



Pre-Listening Session

Action

- Organizing Meetings:
- CBOs
 - NREL Technical Teams

Purpose

Co-design listening session questions



Listening Sessions

Action

Conducted listening sessions with CBO partners

Purpose

Build a continuous, multi-directional, transparent, & sustained engagement process



Post-Listening Sessions

Action

Feedback loop with NREL Technical Teams and CBOs

Purpose

Continue transparent & sustained co-design process to inform modeling



Grounding Findings

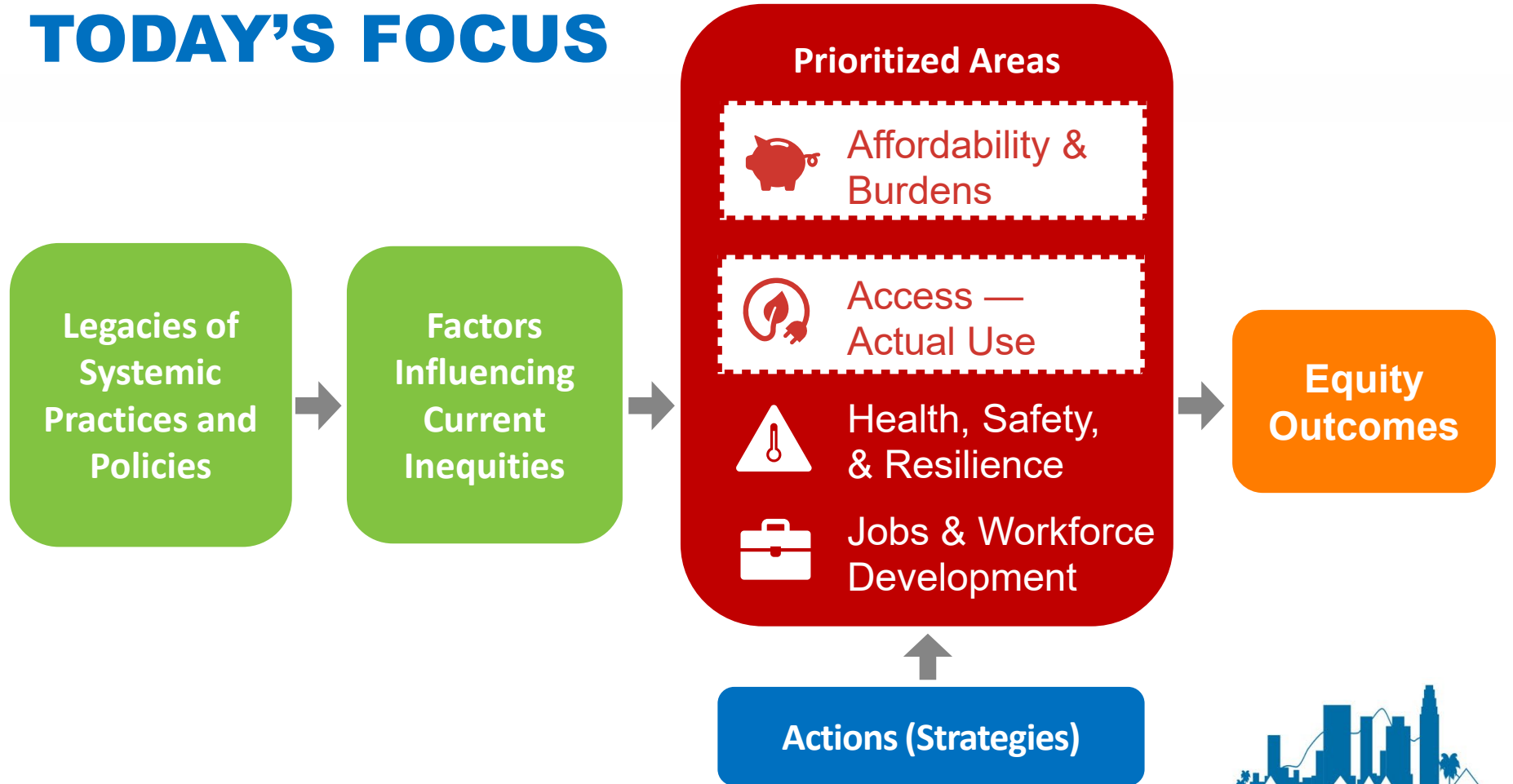
Action

Continuing feedback loop with communities

Purpose

Continue transparent & sustained co-design process *with* communities

TODAY'S FOCUS



DIALOGUE COMPOSITION

Causal
Factor

Impact
Area

Actions
Strategies

Values

Round
1

San Fernando

South LA #1

South LA #2

East LA

Harbor

Round
2

South LA #1 (SLATE-Z)

Pacoima

South LA #1 (SCOPE)

Harbor #1 (UCLA)

Harbor #2 (UCLA)

South LA #2 (Watts)

South LA (Esperanza)

East LA #1 (Climate Resolve) East LA #2 (Climate Resolve) South LA #2 (Comm. Build/SLAANC)

3

Key Preliminary Findings

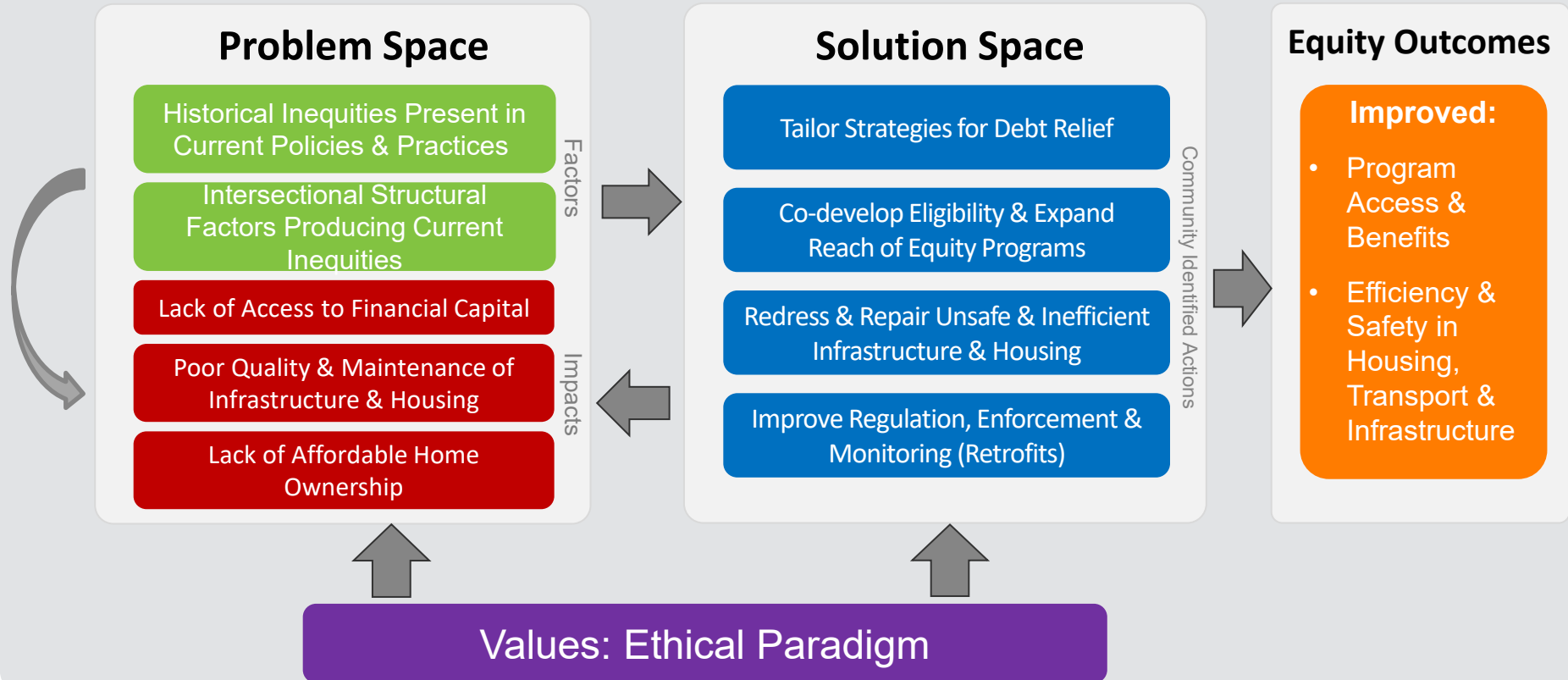


Recurring Ethical Principle

*“The very **definition of equity**, which we spent a lot of time talking about. And even now those of us who have been disadvantaged are sometimes uncomfortable with. **Means it's not about how much. It means that we've all made a commitment that, until we catch up, nobody else gets anything.** So more and more of it becomes ours. Because we have been inequitably treated. But what we want to know is, **how is it proceeding.**”*



Key Findings: Recognition Justice



Action 1:

Tailor Strategies for Debt Relief & Preventing the Accumulation of Debt

*“If the bill was split from...[the] starting of the pandemic, to where you said it's over. **If that bill was split between what you owe presently and then you work out a payment plan for people**, I think that it would be a win win, and then these improvements can happen, the bills still get paid, water and power does get their money, the people are satisfied. But I haven't seen it...when the pandemic happened 2.5 years ago, take what that number was to present when you said utility moratorium is over, stop it right there. Look at what that is, then make that be another bill that you'll have to pay into to get it down but keep the present bill as it is, that's going on right now.”*

Action 2:

Co-Design Equity Programs to Prioritize Energy & Housing Security

*“The owners, if they upgrade the stuff, they're gonna raise the rents...thank god we live in a rent-controlled area... if you don't live in a rent controlled area, you gotta think real carefully if this would, if you want that problem, sometimes it's not for you, basically just **try to live with the appliances that you have** and upgrade the appliances you have and **tell your owner to change the plugs**, because at the end of the day you don't want no car that you can't afford ... when you live in an old building, and they upgrade the electric and they **upgrade** the floors and all this stuff **it's gonna affect people's rent because they're not in a rent controlled [area]**... a lot of people won't be able to stay where they're at. So, they're asking to add some more onto that with the car and electric and all that, make sure you can afford it”*

Action 3:

Programs to Safely Upgrade & Remediate Existing Housing & Infrastructure

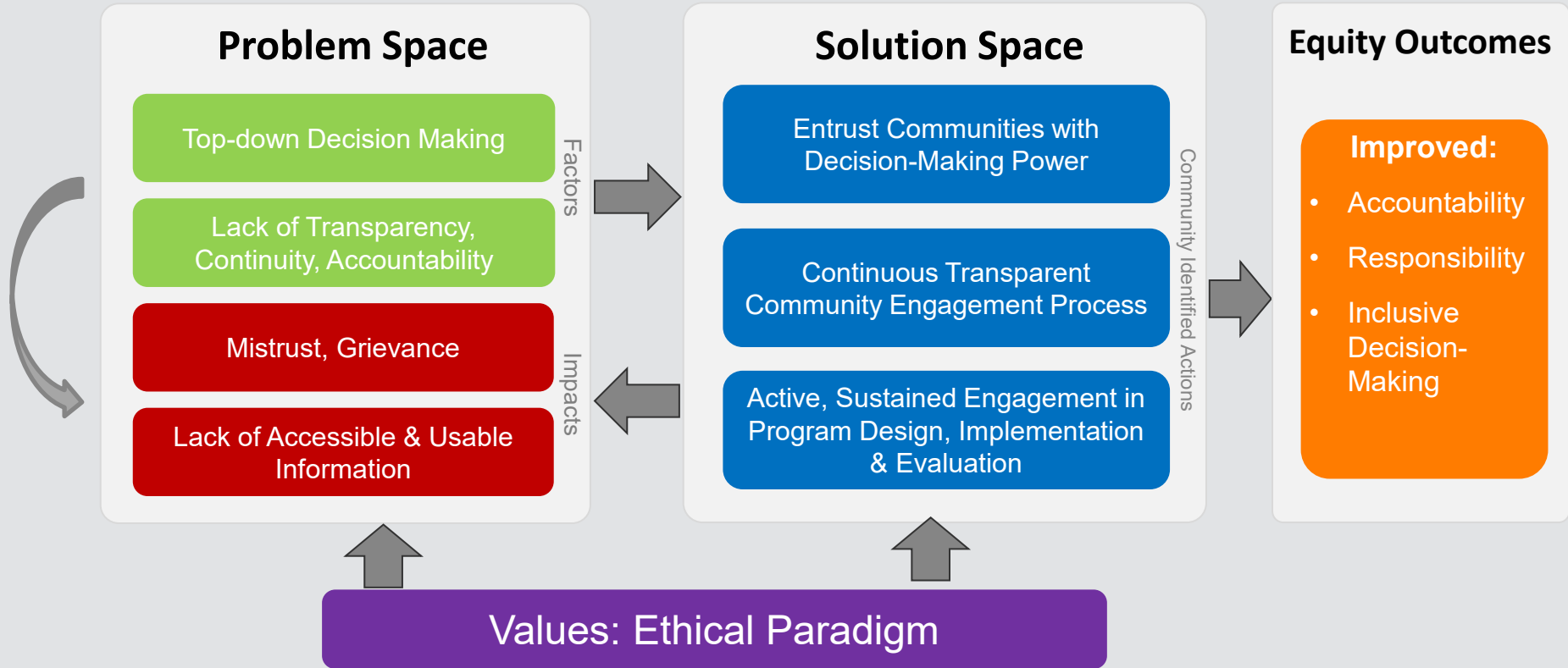
*“[W]hile I appreciate raising the concern about addressing current infrastructure, insuring up that infrastructure. I also wonder if there is a plan to remediate some of the infrastructure that currently exists in South LA that is problematic, in terms of known adverse health outcomes...one thing is **capacity**. **Does our infrastructure have the capacity to deal with these things.** But...just in terms of - from what I understand from the community - there is a **sense of neglect**. In terms of the **outdated infrastructure that needs remediation**...I’m hearing **discussions about what are we going to do to fix, improve the infrastructure to make way for new. But how are we going to remediate the old?** And I think that's also about **building trust in the community**... Where is the **plan to remediate some of the things that currently are causing damage and have been causing damage for quite some time now?**”*

Action 4:

Improve City Regulations, Accountability, and Enforcement

*“There’s a lot of barriers, especially with **old houses**, and Boyle Heights has a ton of old houses. Or they have houses that are old that were flipped. Like a friend of mine just bought a house on Lorena, and **the flipper just basically hid all the old stuff** in there and when he found out that basically it was a **fire hazard** for him to have these **old electrical wires**. ...**The regulations just aren’t there and there’s no support for families who can’t afford to fix these things**. And it’s not necessarily families’ faults that this is happening, or homeowners’ faults, or renters.”*

Key Findings: Procedural Justice



Action 5:

Co-Design Community-Outreach With Local, Trusted Messengers

*“I think education needs to be upfront. And it has to be education directed to the lower income people and also moderate-income people. Who, frankly, **aren't convinced that electric is the way to go**. Second, when it comes to churches. Churches have historically been the way that a lot of education is disseminated. A number of pastors in small churches, medium size churches, aren't on board yet. It's going to be difficult to push this forward without them. I would also like to see...the churches maybe, if you are talking electric vehicles, I would also like to see a **partnership with the churches**. And maybe these electrical stations, maybe they receive that. Education happens in front of the churches as a catalyst to bring people onboard.”*

Action 6:

Guarantee Continuity, Transparency, & Accountability in Community Engagement

*“For continuity’s sake...when they come back again, they should at least keep somebody on board. And bring the others back. Because every time you [LADWP] start over, they are starting from a deaf point of view. If you’ve already been involved, you’ve heard the message, you at least have a perspective, a context. And you have a lens by which to hear and see what’s going on. **They [LADWP] keep starting over the same.**”*

Action 7:

Regulate Predatory Solar Developers

*“We were going to hire a company for that...they said they did not charge anything. But...**the moment we wanted to install it, they were charging us.** So, we canceled that, because they said one thing and then they said another. And I already told the neighbor, and he told me, “don't believe that.” He says, “they just come and install it, and when the time comes...they tell you to sign, and your bill will arrive.” And that is why we have not installed it, for the same reason.”*

Thank
you!



Thank
you!



4 Q&A

1

Process Question:

How can we operationalize the justice and equity principles laid out by Angelinos in this process?

2

Recognition Question:

Are we forgetting any “causal factors” of current energy inequities?

Transportation Electrification

Preliminary results and draft strategies
discussion



Equity Strategy Modeling & Analysis

NREL is conducting modeling, analysis, and strategy development along 10 prioritized pathways:

Low-income energy bill stability

Universal access to safe and comfortable home temperatures

Housing weatherization and resilience to extreme events

Improved access to solar/storage, energy efficiency in multifamily- and/or renter-occupied buildings

Targeted community solar siting

Resiliency in disadvantaged neighborhoods through solar-plus-storage siting

Equitable light-duty electric vehicle (EV) and charging access

Multimodal strategies for reduced transportation energy burdens

Distribution grid upgrades to enable equitable solar, storage, and EV adoption and resilience

Mitigation of medium- and heavy-duty vehicle health impacts through electrification

This presentation focuses on the highlighted pathways.



Equity in LADWP EV Charging & Used EV Investments

LADWP INVESTMENTS

ELECTRIC
VEHICLES



Incentive Programs

NUMBER
OF YEARS



TOTAL AMOUNT
SPENT

\$71,239,371

AVG. AMOUNT
PER CUSTOMER
DAC/Non-DAC

\$41
\$64

% OF INCENTIVES
Normalized by
of Customers
DAC/Non-DAC



WHICH COMMUNITIES DISPROPORTIONATELY BENEFITED FROM PROGRAMS?

DAC/
Non-DAC

Mostly Non-
White/White

Mostly Hispanic
/Non-Hispanic

Mostly
Renters/Owners

Below/Above
Median Income

Non-
DAC

White

Non-
Hispanic

Owners

Above

Analysis of LADWP EV and EV charging infrastructure incentives indicate 75% of incentives went to households in non-disadvantaged communities.

The \$71 million in LADWP EV incentives disproportionately benefited predominantly White, non-Hispanic, home-owning, and wealthier neighborhoods.



LADWP EV Charging & Used EV Incentives

by Product & Rebate Type



Program	Which communities disproportionately benefited from incentives?				
	Non-DAC/DAC	Mostly White/ Mostly Non-White	Mostly Non-Hispanic/ Mostly Hispanic	Mostly Owners/ Renters	Above/Below Median Income*
Commercial New Charger	Non-DAC		Non-Hispanic	Renters	Above
Direct Current Fast Charger	No statistically significant difference				
Residential New Charger	Non-DAC	White	Non-Hispanic	Owners	Above
Residential New Sub-Meter	Non-DAC	White	Non-Hispanic	Owners	Above
Residential Used Vehicle	Non-DAC	White	Non-Hispanic	Owners	Above

NOTE: Medium-duty and heavy-duty (MDHD) EV incentives and commercial new sub-meters could not be analyzed due to an insufficient data.

*Median income: \$73,100 annual salary (2019)

DAC = disadvantaged community as defined by SB 535

Programs with a **statistically significant difference** in the **dollars spent on rebates received by households** between the sociodemographic metrics are marked in **blue** or **gold**. Unmarked boxes indicate no statistically significant difference.



Did census tracts receive EV incentives proportional to their population*?

*number of households

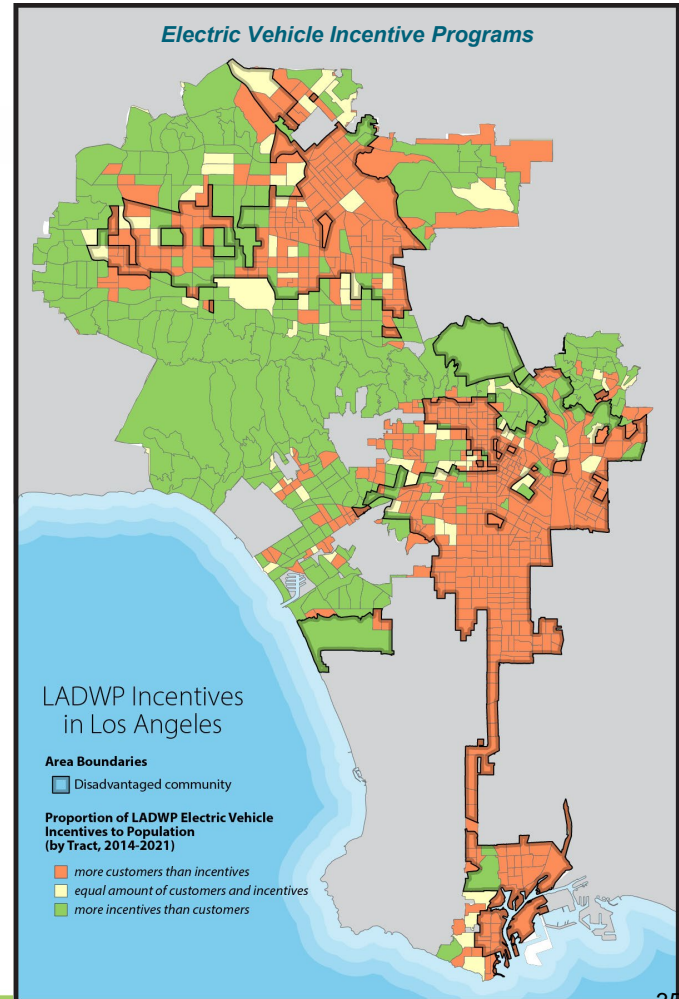
Areas including South LA, and the San Fernando Valley did not receive EV and EV charging infrastructure incentives proportional to their populations

Tracts where:

- % of households* > % of incentives received**:
“more customers than incentives”
- % of incentives received** > % of households*:
“more incentives than customers”
- % of incentives received** = % of households*:
“equal number of customers and incentives”

*% of households = number of households in a census tract divided by the total number of households

**% of incentives received = number of incentives granted to tract divided by the total number of incentives



Public EV Charging Stations

Are public **electric vehicle charging stations** distributed equally across neighborhoods?

[Link To Methodology](#)

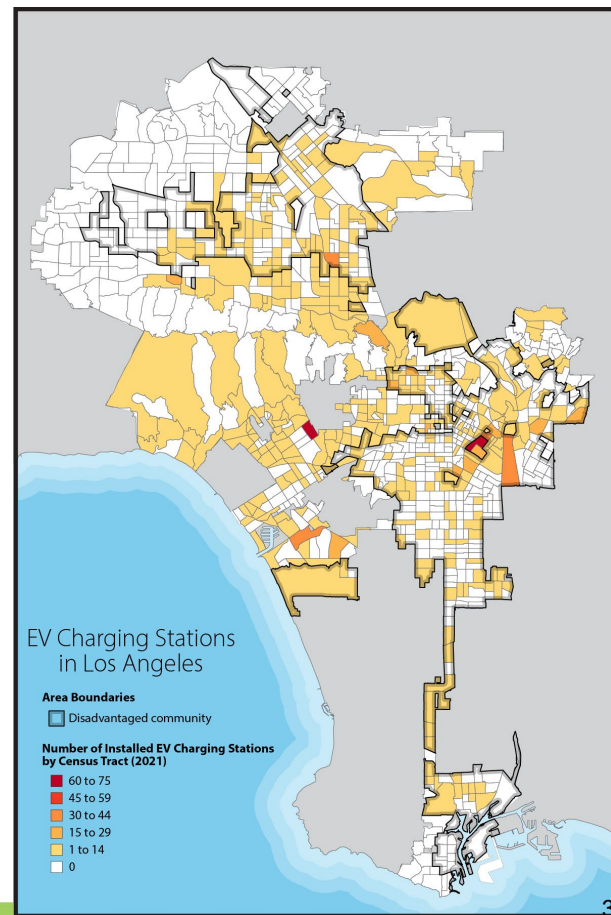
Non-DAC/DAC	Mostly White/ Mostly Non-White	Mostly Non-Hispanic/ Mostly Hispanic	Mostly Owners/ Renters	Above/Below Median Income*
No statistically significant difference		Non-Hispanic	No statistically significant difference	

*Median income: \$73,100 annual salary (2019)

Non-Hispanic communities have more charging stations than **Hispanic** communities.

For all other populations, there is no statistical significance in the distribution of EV charging stations throughout the city.

Public EV charging stations in LA consist of the following networks: Blink, ChargePoint, Electrify America, EV Connect, EvGateway, EVgo, FLO, Greenlots, OpConnect, PowerFlex, SemaCharge, Tesla, and Volta, and include non-networked charging stations.



Source: [Alternative Fuels Data Center](#)

Equitable Light-Duty Electric Vehicle (EV) & Charging Access

Multimodal Strategies for Reduced Transportation Energy Burdens

D-Y Lee, NREL

Alana Wilson, NREL

Bingrong Sun, NREL



Equitable Light-Duty EV & Charging Access



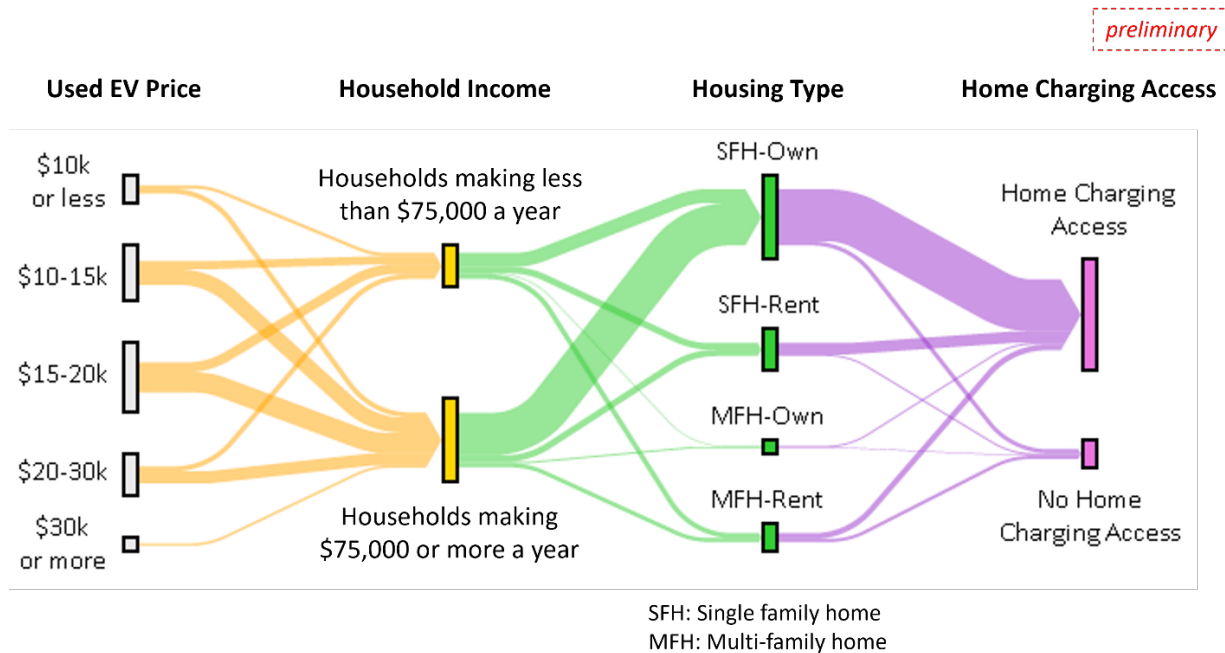
Used EVs

Key Findings

In a business-as-usual scenario, by 2035:

- ~30% of used EV consumers are households that make less than median income (\$75K)
- ~50% of LA households that make less than \$75,000 a year and are predicted used EV consumers live in rented properties and/or multifamily homes
- ~40% of predicted EV consumers living in multifamily buildings will not have access to power outlets near where their vehicles park.

Access to EVs depends on cost, income, home charging access, personal car ownership, and other factors.

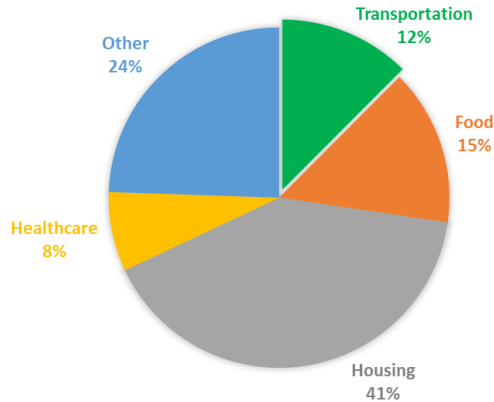


Preliminary sociodemographic and economic characteristics (2022 dollars) of used EV owners in LA, 2035 (based on business-as-usual scenario) (Source: EVI-Equity)

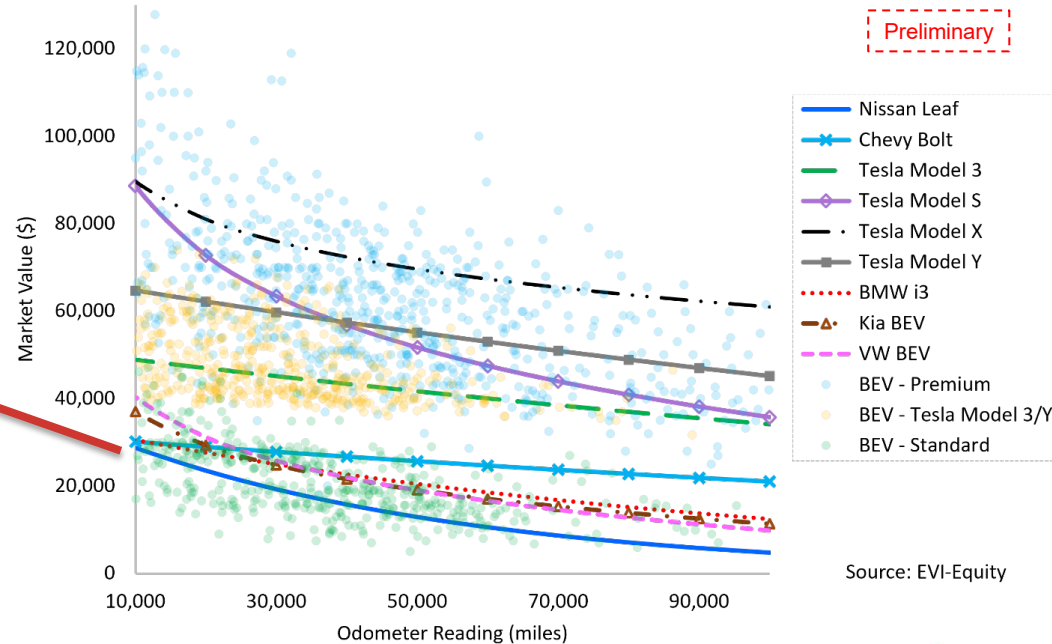
Used EVs

Key Finding: With federal (\$4,000) and city (\$2,000) rebates, purchasing a standard used EV can maintain or lower household transportation expenditures for moderate income households.

Household Expenditure Breakdown
for an Example Household with \$60,000 Annual Income;
and Purchased Used Nissan Leaf



Market Value of Used Battery Electric Vehicles (BEVs) in California in 2022



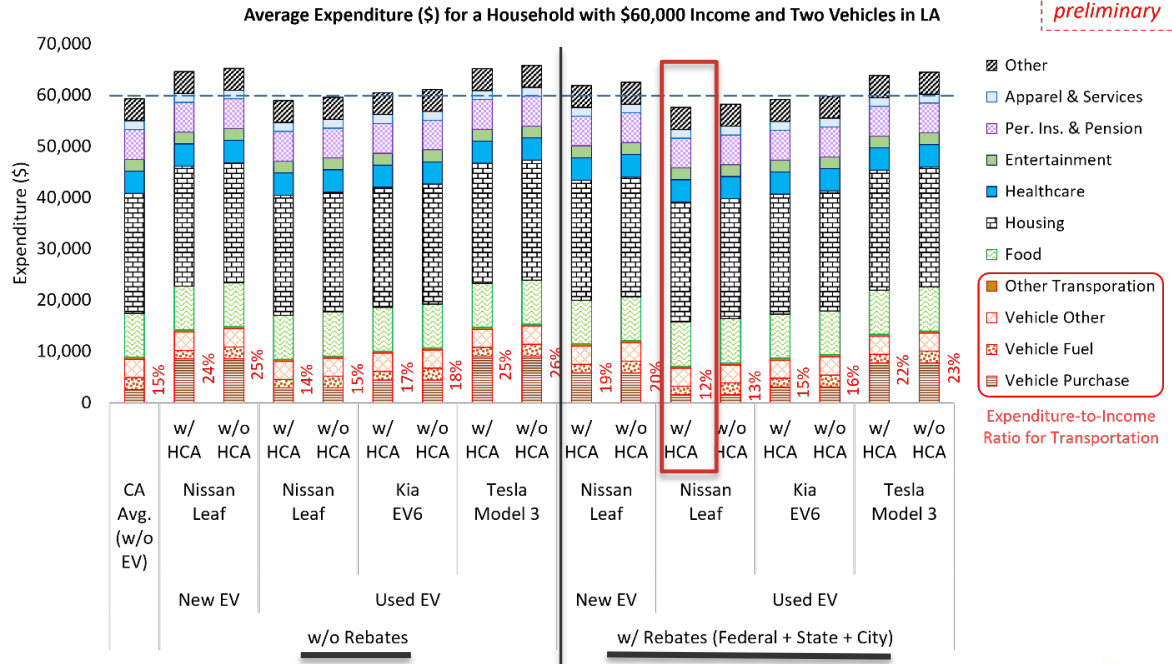
Source: EVI-Equity

Used EVs and the longitudinal evolution of their market value in California in 2022
(Source: EVI-Equity)

Used EVs

Key Finding:

- Home charging access can make the difference between used EV adoption increasing or decreasing expenditures for low- to moderate-income households.
- A used Nissan Leaf could reduce household expenditures for moderate income households with charging access.
- Combining federal, state, and LADWP rebates can mean additional used EV models (e.g., Kia EV6), lower low- to moderate-income household costs.



Expenditure-to-income ratio for an example household with an income of \$60,000 that purchased one new versus one used EV in LA
(HCA = home charging access)

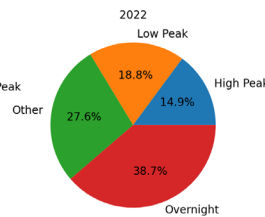
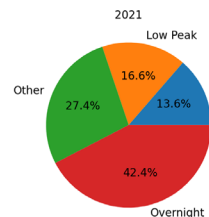
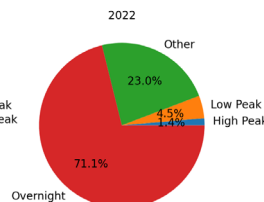
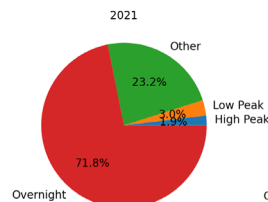
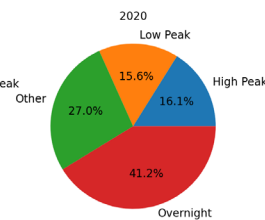
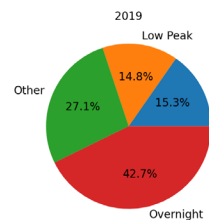
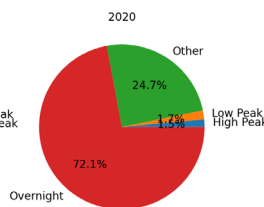
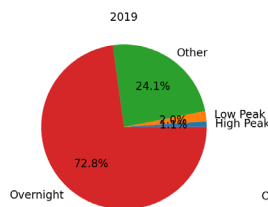
EV Charging

Key Findings:

- Charging profiles vary by customer type, which can inform load management
 - ~40% of sampled commercial charging consistently occurred overnight vs. >70% of residential
- Apartments had lowest peak charging of commercial chargers analyzed (22% vs. 78%)
- BlueLA carshare sites use ~50% overnight charging

NREL analyzed hourly load data for EVSE that received an LADWP rebate for EV charging time-of-use rate sub-meters

- 35 locations with full time series (2019-2022)
 - 22 residential; 13 commercial
- ~20% of charging occurs during peak electricity demand hours



Residential (n=22)

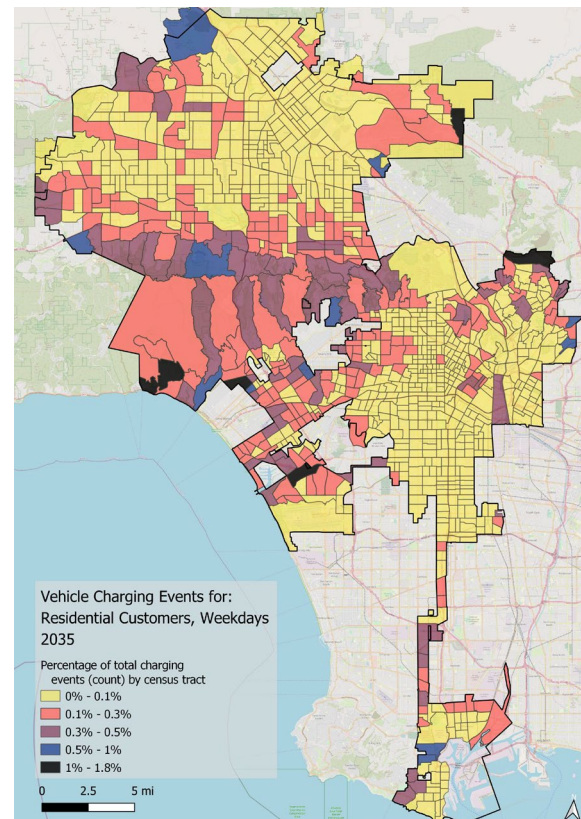
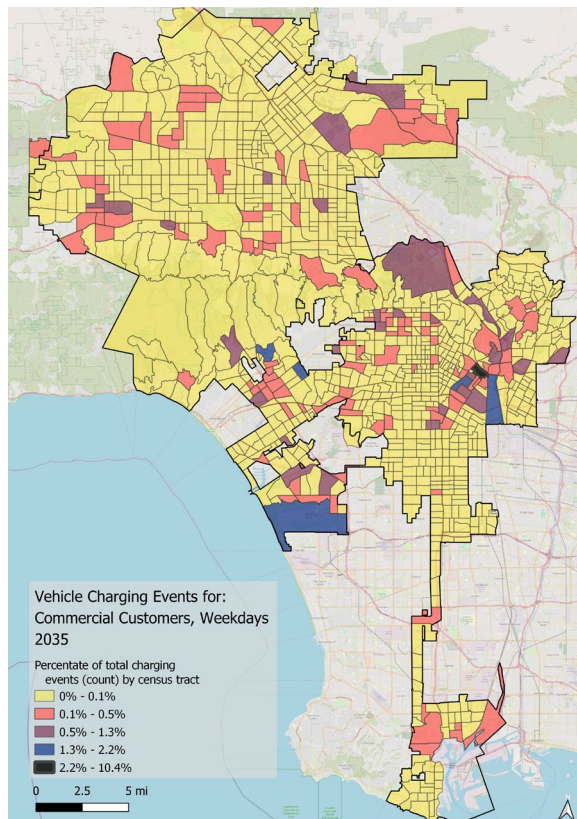
Commercial (n=13)

2035 EV Charging Business-as-usual Scenario Preliminary Results

Key Finding:

In a 2035 business-as-usual scenario, residential EV charging occurs predominantly in west LA, indicating EV adoption and charging access and benefits will continue to be heavily inequitable without a deliberate program and incentive equity focus.

Initial analysis shows the different spatial distributions of commercial (left) versus residential (right) customer charging events.



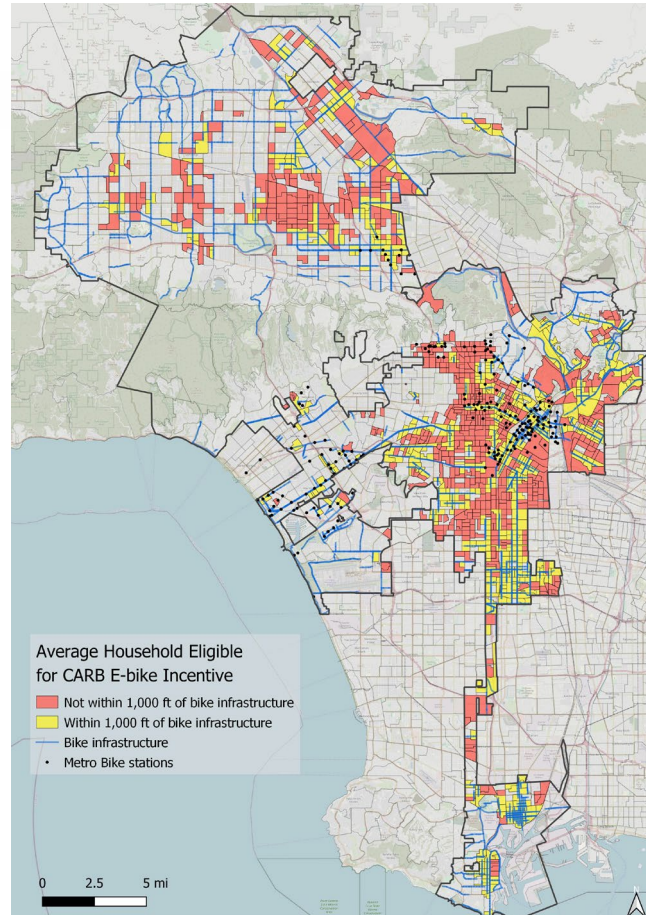
Multimodal Strategies for Reduced Transportation Energy Burdens



Equitable and Safe E-bike Access

“It is terrifying to get around the city not in a car.”

-Advisory Committee member



E-bike benefit

Forthcoming CARB e-bike incentives* limited to households at 300% of Federal Poverty Level**

- 49% of LA census block groups (map: red & yellow areas)

Inability to access the benefit

Key Finding: Fewer than 50% of households eligible for CARB e-bike incentives are within 1,000 feet of existing bike infrastructure.

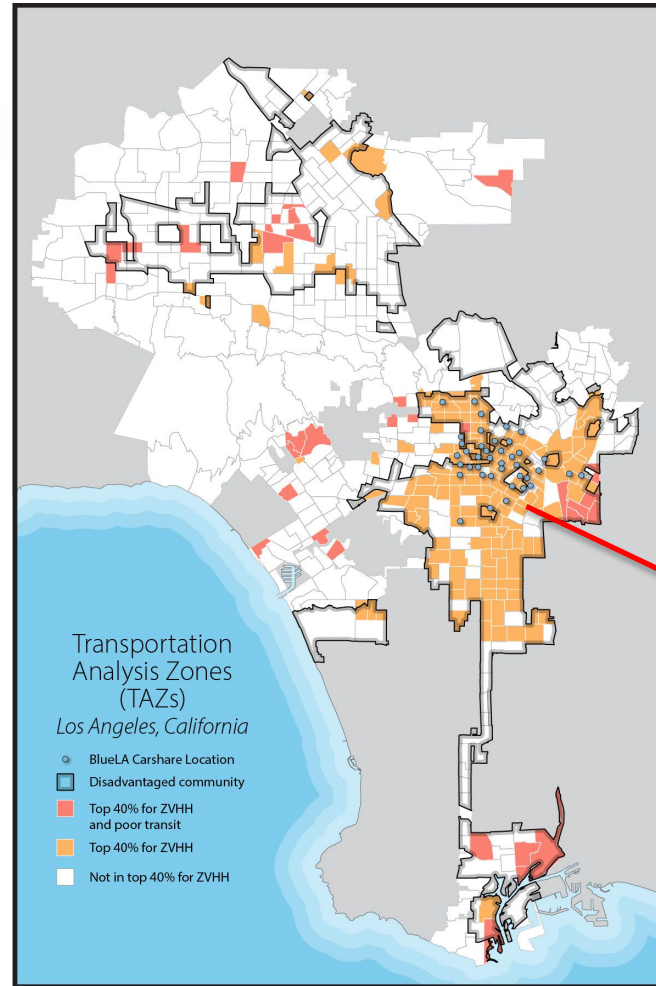
Red areas are areas where >50% of households are eligible for the e-bike incentive **but don't have nearby access to bike infrastructure.**

* Budget of \$10 million (~6k incentives). Note that demand for other existing e-bike incentives far exceeds supply

**Map uses ACS 2015-2019 income & FPL



Initial Priority Areas for Multimodal Electrification Strategies



Areas that are:

- In the top 40% for zero vehicle households* (ZVHHs – 12% or more of households without vehicles),
- In the top 40% for low-quality transit **,
- SB 535 designated disadvantaged communities

Example: In census tract 6300, approximately 83% of households do not own vehicles (2,026 of 2,433 households).

*ACS 2015–2019

** EPA Smart Location 2020



Multimodal Transportation Electrification Strategies for Disadvantaged Communities



Shared e-bike access



Shared EV access

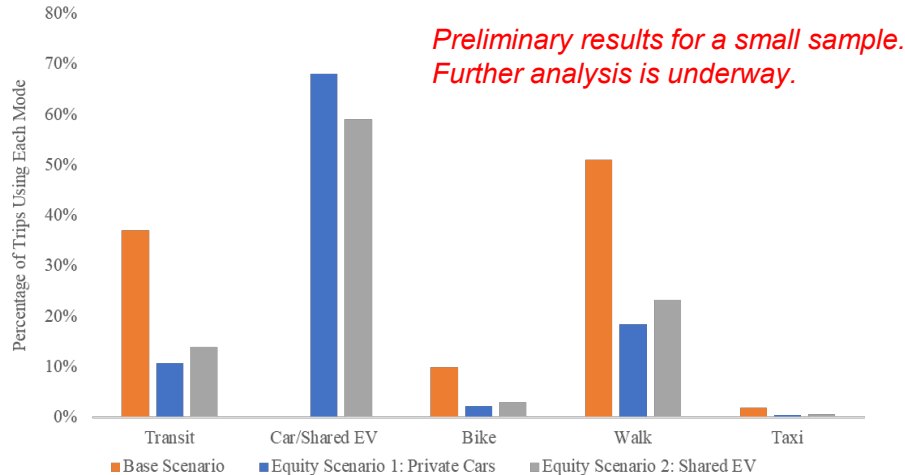


Improved transit

Transportation Analysis Zone ID & Neighborhood	Most affordable	Most time efficient	Access to most opportunities	Transportation Analysis Zone ID & Neighborhood	Most affordable	Most time efficient	Access to most opportunities
3718 – Panorama City				4111 – Boyle Heights			
3731 – Panorama City				4114 – Boyle Heights			
3734 – North Hills				4115 – Boyle Heights			
3737 – Panorama City				4150 – Boyle Heights			
3864 – Reseda				4335 – East Hollywood			
3866 – Canoga Park				4611 – Wilmington			
3872 – Winnetka				4612 – Wilmington			
3877 – Van Nuys				4614 – San Pedro			
4067 – Boyle Heights				4630 – Wilmington			
4105 – Boyle Heights				Calculated for low-vehicle ownership, low transit access, disadvantaged communities			

Mode Equity Analysis

Key Finding: EV car sharing could substantially reduce transportation time and increase access to opportunities in neighborhoods with very low car ownership rates.



Percentages of trips that use different travel modes in three scenarios

* Only operational costs (e.g., gas, insurance, maintenance) are considered in the privately owned car scenario. Vehicle purchasing cost is not included.

Daily Impact on Cost, Travel Time, and Accessed Destinations in Three Scenarios for All Households in a TAZ

Scenarios	\$	Hours	Ratio of Destinations Within Reach
Base Scenario 1: Without privately owned car	4,970	1,407	1
Base Scenario 2: Privately owned car	5,120*	803	9.3
Equity Scenario 1: Shared EV program	6,704	933	8.5

With original travel time budget but now faster travel modes, what are the impacts?

Which multi-modal strategies can increase access towards this level?



Equity Strategies



Current Inequities

75% of LADWP EV and EV charging infrastructure incentives went to households in non-disadvantaged communities

The \$71 million in LADWP EV incentives disproportionately benefited predominantly White, non-Hispanic, home-owning, and wealthier neighborhoods.



Community Solutions Guidance

Affordable and electric options to enhance mobility and reduce pollution

Culturally informed, transparent, tailored, and consistent outreach and communication

Simplified application materials and methods for LADWP and city incentives.



Modeling & Analysis Key Findings

With federal (\$4,000) and city (\$2,000) rebates, standard used EVs (e.g., Nissan Leaf) are affordable for median income households and maintain or lower household transportation expenditures

Combining federal, state, and city rebates can make additional used EV models, like the Kia EV6, affordable for many low-to moderate-income households.



Equity Strategy

Establish a purchase price cap and/or household income threshold for LADWP used EV incentive

- Modeling underway to identify incentive thresholds for affordable EV access

Partner with CBOs to fund and staff networks of educators to target incentive outreach to disadvantaged communities, renters, and multifamily residents.



Current Inequities

Mostly non-Hispanic communities have more charging stations than mostly Hispanic communities

75% of LADWP EV and EV charging infrastructure incentives went to households in non-disadvantaged communities



Community Solutions Guidance

Ensure charging stations are located to respond to daily household routines

Set up low-income communities for EV infrastructure without adding burdens

Infrastructure for charging personal EVs, shared EVs, e-bikes, etc.



Modeling & Analysis Key Findings

By 2035, ~50% of potential LMI used EV consumers will be renters or live in multifamily buildings

40% of households living in multifamily homes lack access to charging at or near parking

Home charging is more affordable than public charging and can make the difference between used EVs increasing or decreasing expenditures for median income households

Apartments had lowest peak charging of commercial/multifamily chargers analyzed

Commercial customers are 4-6x more likely to charge during peak hours than residential customers



Equity Strategy

Home charging access

- Provide at- or near-home charging access for renters and multifamily residents to enable more equitable purchase and EV charging options

Public charging

- Provide support (e.g., vouchers) for those relying on public EVSE due to no home charging
- Develop public charging for residential charging in disadvantaged communities with charging deserts



Multimodal Transportation Electrification

DRAFT for discussion

Current Inequities

In LA, SB 535 census tracts, 16% of households don't own vehicles (vs. 12% citywide)

Even with LADWP, state, and federal incentives, used EVs are still not necessarily the best option or affordable for low-income households.

Community Solutions Guidance

Tailor access to affordable e-mobility technologies based on needs

Expand electric bike e-scooter, and EV-sharing programs

Improve quality of public transit and safety of streets

Modeling & Analysis Key Findings

Behavior modeling shows EV car sharing can provide affordable access to EVs, substantially reduces transportation time, and increases access to opportunities in areas with very low car ownership rates

The most affordable and most time-saving multimodal strategies can vary across communities

Equity Strategy

Provide a portfolio of options including EV car-share, e-bike, e-scooter programs in low-income areas with low vehicle ownership

- Areas include Boyle Heights, Wilmington, and Panorama City neighborhoods
 - 20 census tracts where most neighborhoods also have poor transit

Pair e-bike incentives with bike infrastructure expansion and charging

- Modeling currently underway will identify spatial distributions of strategy benefits





Discussion

Please share ideas and suggestions
about the draft equity strategies

DRAFT Transportation Electrification Equity Strategies – Discussion

EV Access & Benefits

- Establish a purchase price cap (e.g., \$20k) and/or household income threshold for the LADWP used EV incentive
- Partner with community-based organizations to fund and staff networks of educators to target incentive outreach to disadvantaged communities, renters, and multifamily building residents.

EV Charging Access & Benefits

- Provide at-home or near-home charging access for renters and multifamily building residents to enable more equitable opportunities to purchase and charge EVs.
- Provide financial support (e.g., vouchers) for those who must rely on public EVSEs due to lack of home charging access
- Develop publicly accessible charging infrastructure to support residential charging in disadvantaged communities with charging deserts.

Multimodal Transportation Electrification

- Establish EV car-share, e-bike, e-scooter, programs in low-income census tracts with low vehicle ownership and limited transit access
- Focus on areas that fit those criteria and are SB 535 DACs, especially neighborhoods like Boyle Heights, Wilmington, and Panorama City
- Pair bike infrastructure expansion and charging with e-bike programs and incentives.



Legal and Regulatory Constraints on Ratemaking (LADWP)

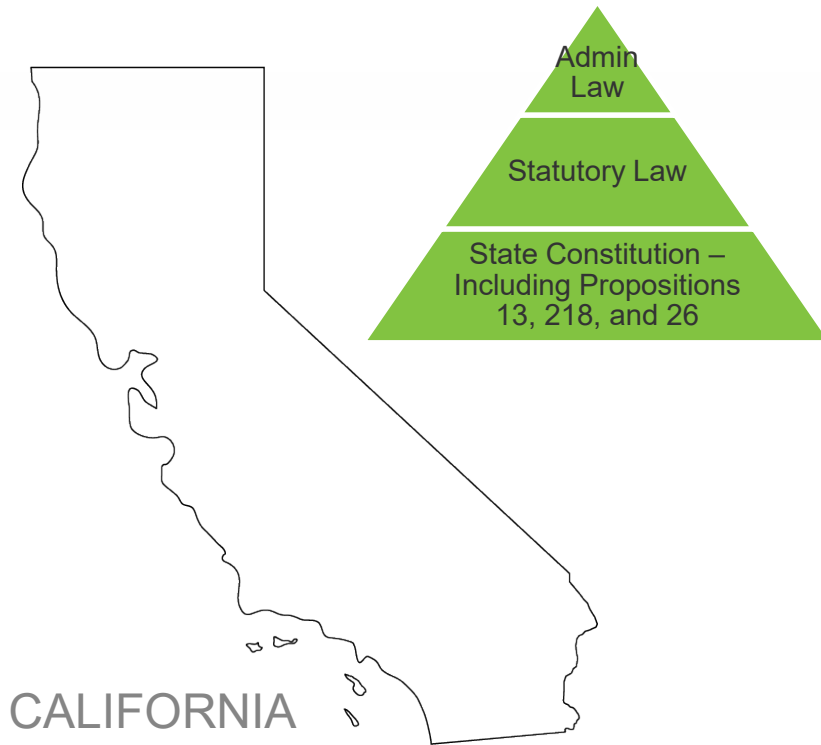
Rachel Sheinberg, UCLA



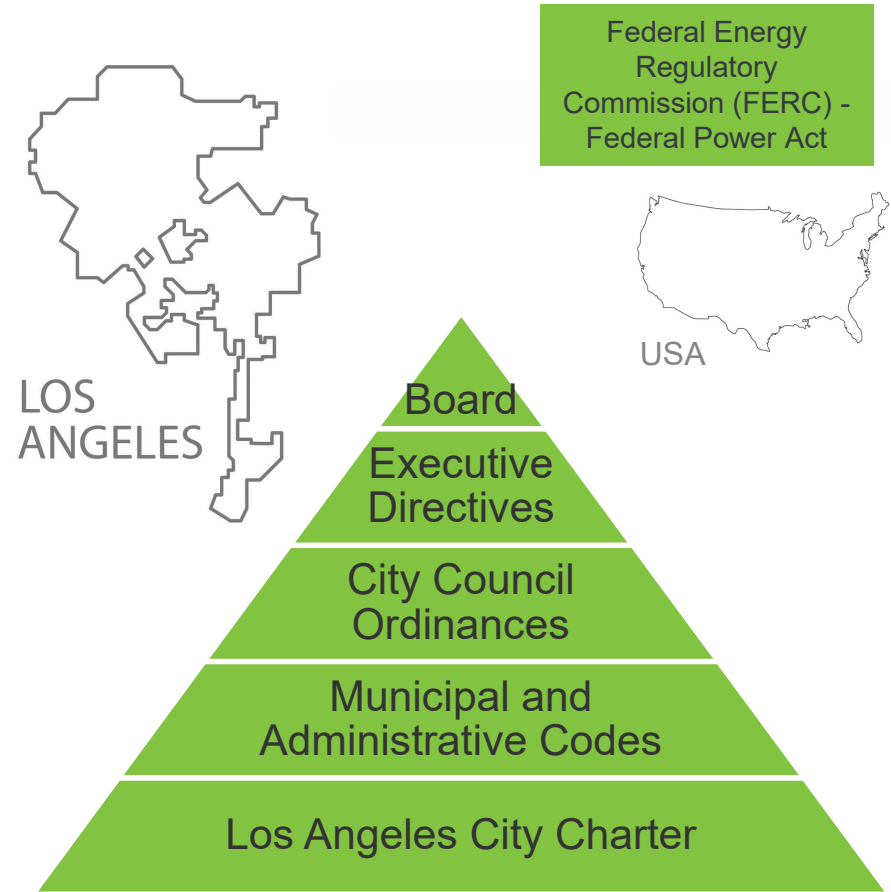
What does DWP need to consider when setting rates?

- There are a variety of laws and regulations that LADWP must consider when setting electricity rates, all coming from different authorities.
 - It is important to understand these requirements - and how they might need to change - when discussing affordability solutions!
- Arguably the most *visible* constraints on municipal utility ratemaking are Propositions 218 and 26.
 - With these propositions limiting ratemaking, many solutions we discuss would require policy changes to be implemented at the city or state level.
- But there are also other local and state regulations that impact affordability and rates, such as California's Public Utilities Code and the LA City Charter.
 - In some cases, these might even support the *need* for rate changes.



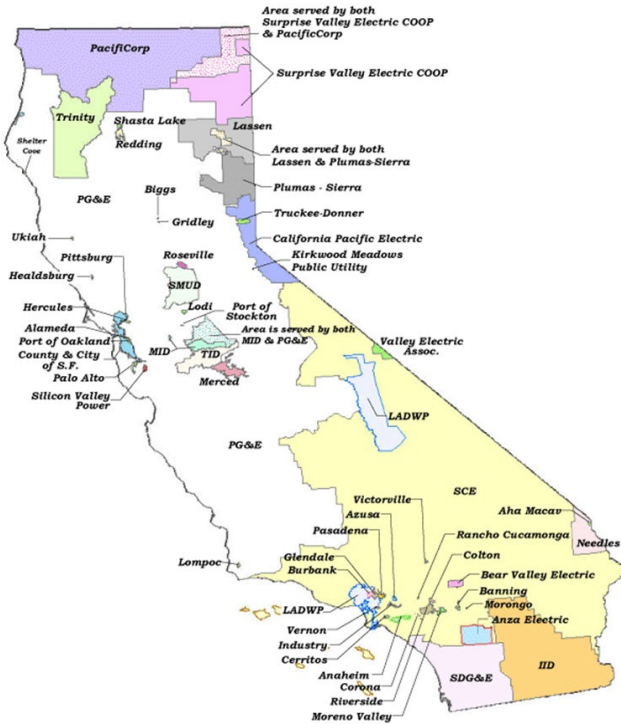


Regulatory Levels



CA State Law: Municipal Utilities

California Electric Utility Service Areas



- Utility regulations in California state law fall under the Public Utilities Act.
 - Most of the Public Utilities Act (also called the Public Utilities Code) concerns investor-owned utilities and the California Public Utilities Commission (CPUC).
 - The state's investor-owned utilities include Pacific Gas & Electric (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E) - which are all regulated by the CPUC.
- A few specific rules concern local publicly owned electric utilities (e.g., LADWP)



CA State Law: Municipal Utilities

- Public Utilities Code Sections 385 and 386 concern publicly-owned utilities and set out requirements for things like load management, renewable procurement, and low-income energy affordability.
- For example, Section 386 (a) and (b) read:
 - (a) Each local publicly owned electric utility shall ensure the following:
 - (1) Low-income families within the utility's service territory **have access to affordable electricity.**
 - (2) The current **level of assistance reflects the level of need.**
 - (3) Low-income families **are afforded no-cost and low-cost energy efficiency measures** that reduce energy consumption.
 - (b) The local publicly owned electric utility **shall consider increasing the level of the discount or raising the eligibility level for any existing rate assistance program to be reflective of customer need.**



LADWP + Ratemaking in LA's Charter

- Article IV, Sections 670 through 684 of LA's City Charter address LADWP.
- Relevant highlights include:
 - Rates are set by the Board and approved by City Council ordinance.
 - Rates shall be “uniform for customers of similar circumstances...” *but* can take into consideration “nature of uses,” “quantity supplied,” and “value of service.”
 - Rates need to be comparable or less than rates in surrounding regions (e.g., SCE and SDG&E).



Understanding Propositions 218 and 26

1978: Proposition 13 adopted, limiting property tax collection to 1% of property values

Cut municipal revenues from taxes in half!



Understanding Propositions 218 and 26

1978: Proposition 13 adopted, limiting property tax collection to 1% of property values



1996: Proposition 218 adopted, aimed to limit the ability of local governments to levy non-property taxes without voter consent



Cut municipal revenues from taxes in half!



Understanding Propositions 218 and 26

1978: Proposition 13 adopted, limiting property tax collection to 1% of property values



1996: Proposition 218 adopted, aimed to limit the ability of local governments to levy non-property taxes without voter consent



2010: Proposition 26 adopted, redefining many fees as taxes, and inserting these definitions of tax in Constitutional language from Props 13 and 218

Cut municipal revenues from taxes in half!



General and Special Taxes

- One important distinction in Prop 218 is that *General Taxes* require a simple majority vote (50%) and *Special Taxes* require a super-majority vote (66%) for approval
 - General Taxes: Taxes (or fees!) “imposed for general governmental services”
 - Special Taxes: Taxes (or fees!) “imposed for specific purposes, including a tax imposed for a specific purpose, which is placed into a general fund”
- This matters because, unsurprisingly, LADWP rate increases for equity purposes would fall under special taxes, meaning they would need *super-majority approval* on a ballot initiative.



Implications for Rates and Affordability

- Proposed changes to LADWP's rate structure will likely be scrutinized in the context of Propositions 218 and 26
 - Unless explicitly approved by voters, things like an increased rate paid by non-disadvantaged customers to subsidize more robust or complex discount programs might be viewed as an “unlawful tax”
 - That being said, NREL, UCLA, and community researchers have all found that the current system is inequitable across a wide range of outcomes
- Further, it could also be argued that *not* adapting more robust discount program(s) is problematic in the context of the Public Utilities Code requirements for serving low-income residents



Rates and Affordability: Looking Forward

- The equity strategies work is being conducted to support DWP and the community in identifying the most impactful rate changes and affordability strategies for implementation
 - Most (if not all) of the studied strategies would require a successful city-wide ballot initiative in order to be implemented
 - State and federal funding from programs like the Inflation Reduction Act could also support affordability programs *without* being subject to Propositions 26 and 218, and LADWP is already in the process of applying for this type of funding



Discussion

Ethnic Business Study

Paul Ong, Silvia Gonzalez, Ariana Hernandez,
Rosario Majano, and Ruth Rodriguez

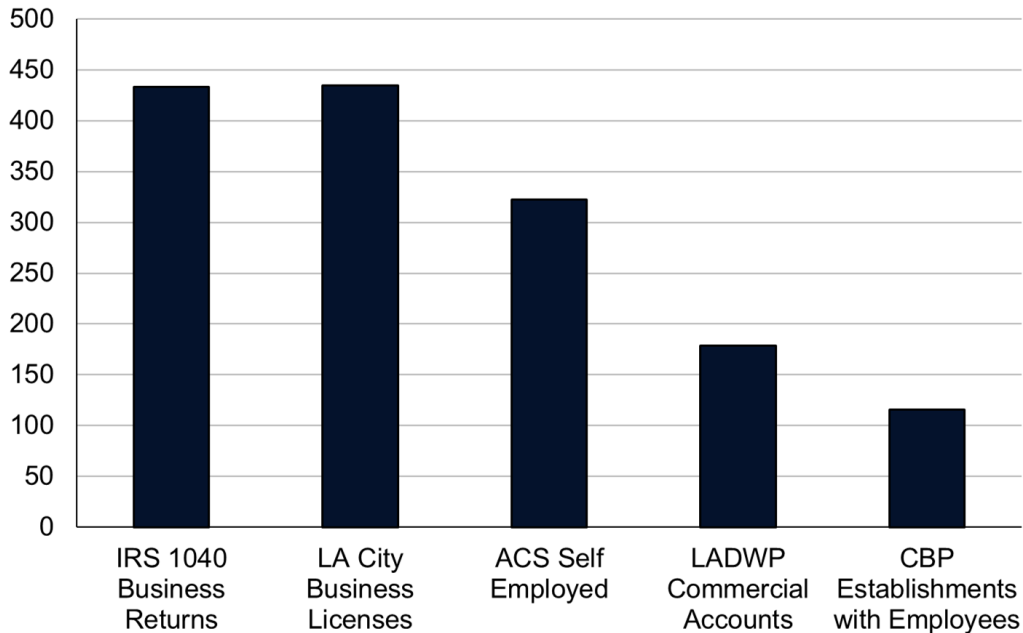
UCLA Center for Neighborhood Knowledge

UCLA Latino Policy and Politics Institute



Business Sector of Los Angeles City

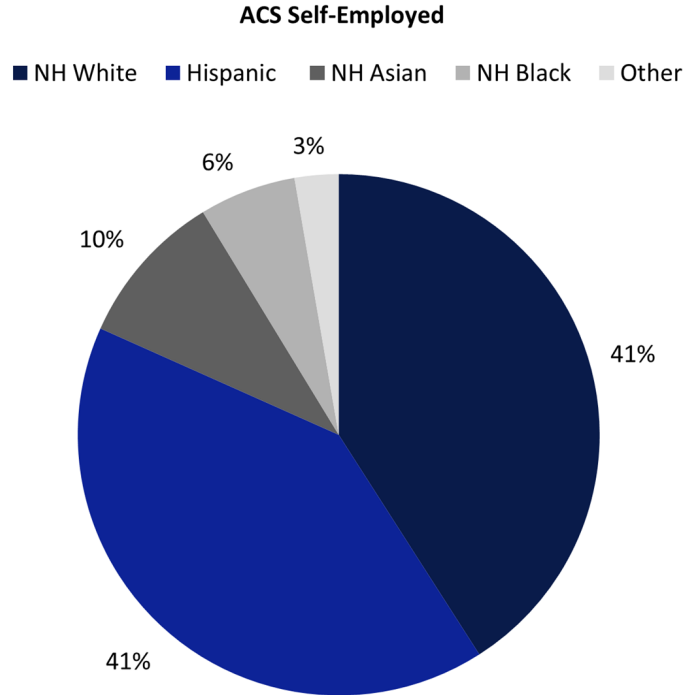
Businesses In LA City (x1,000)



Over 400k entrepreneurs, with small businesses comprising a large majority of all businesses.



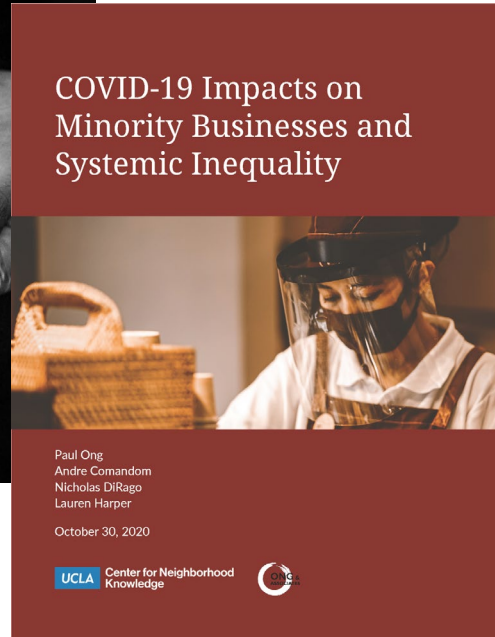
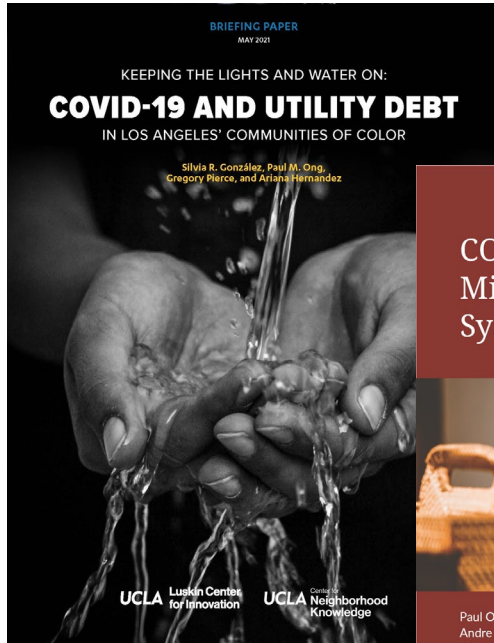
Ethnic Businesses in Los Angeles City



Ethnic businesses are disproportionately small operations. Three-in-five entrepreneurs are people of color (2015-19 ACS), but minority business enterprises (MBEs) comprise less a third of firms with employees (2017, U.S. Census NES).



Motivations for Research



In the face of worsening economic inequality due to COVID-19 and climate change, it is critical that ethnic small business owners and entrepreneurs remain viable, thus creating an inclusive and sustainable economic recovery.

This research seeks to identify the magnitude, patterns and causes of the structural barriers that hinder access to the necessary capital and ever-changing technological tools that can grow and transform ethnic business entrepreneurship.

The research project is designed to reach small businesses, micro-businesses and self-employed individuals who are critical to the survival and economic mobility of communities of color but are typically excluded from existing business studies.



Survey Goals and Objectives



Goals: Gain insights on the energy affordability barriers and opportunities for ethnic-owned small businesses. Provide information to LADWP and other stakeholders to help develop effective and equitable policies and programs.

Objectives: Collect critical information from small businesses, with a focus on ethnic-owned businesses. 500 valid responses. Produce an analytical brief for LADWP and other stakeholders.



Survey Methodology

- **Institutional Review Board (IRB)** approval to protect privacy and ensure confidentiality
- **10-15 minutes**
- **Key Topics**
 - (1) Firm characteristics
 - (2) COVID impacts and relief programs;
 - (3) Energy burden;
 - (4) Climate-change impacts;
 - (5) Sustainability practices; and
 - (6) Programmatic needs



Survey Sampling Methodology

- **Online & Multi-language:** English, Spanish, Chinese, Vietnamese, Thai, and Korean
- **Sampling strategy, geography:** Convenience panel, region-wide sampling
- **Sampling strategy, diversity:** Oversampling of ethnic firms and those in ethnic economic enclaves (i.e. Leimert Park, Boyle Heights, Koreatown, etc.)
- **Sampling strategy, quality control:** Selective invitations and extensive spam screening and verification (e.g., IP address, email, location, etc.)
- **Outreach efforts:** Partner with community-based organizations, chambers of commerce and business associations serving MBEs.
- **Participation incentives:** \$20 Visa Gift Cards
- **Final number of responses:** 551 valid responses



Preliminary Survey Results

Major Observations

(As of February 2023, Subject to Change as Results are Not Final)

Respondent Characteristics

- The majority of respondents employ 1 to 4 part/full-time employees.
- Well over half of respondents identify their businesses as ethnic minority owned, with the largest population identifying as Black, followed by API and Hispanic/Latino ethnic groups.
 - Over one-third of respondents conduct their businesses from home using residential utility accounts.
 - Nearly half of respondents lease or rent a commercial property for their business.
- The majority of respondents are in the retail industry, followed by the accommodation and food service industry, the recreation industry, technical services industry, and the manufacturing industry.
- The majority of respondents have business that are less than 5 years old.
- 96% of the respondents are within L.A. County, with 75% being within the city of L.A.



Preliminary Survey Results

Major Observations

(As of February 2023, Subject to Change as Results are Not Final)

Burdens & Impacts on Small Business

- *Energy Burden*
 - Approximately one-third of respondents have been behind on their utility bill over the past year.
- *Current Climate Change Impacts*
 - A majority of respondents proclaimed that climate change has already had a negative impact on their businesses via the rise in operation costs and lowering of revenue.
- *Future Climate Change Impacts*
 - Nearly half of respondents foresee climate change having an observable effect on future revenue, costs, and investments.
- *Pandemic Impacts*
 - Over two-thirds of respondents were negatively affected by the pandemic.
 - A majority of respondents did not receive government assistance during the pandemic.



Preliminary Survey Results

Major Observations

(As of February 2023, Subject to Change as Results are Not Final)

Planning for a 100% Renewable Energy Powered Future

- *Planning for Climate Change*
 - Only a small minority of respondents feel that they have a very good grasp on environmental sustainability practices for their businesses.
- *LADWP Transition*
 - A small minority of respondents are aware of LADWP's transition and understand what this transition will mean for their businesses.
- *Programmatic Needs:*
 - The vast majority of respondents need help in transitioning to 100% renewable energy, including but not limited to the following: educational materials to understand the transition and payment programs to fund upgrades to existing equipment.



Joint Workshops*



Energy Efficiency Workshop will be organized by LADWP, business serving community-based organizations and UCLA, providing MBE participants an opportunity to learn about the survey related to equity and LADWP programs, and to share their views and priorities.

**The workshops are not a part of the funded research but is mutually beneficial and useful to shape future efforts to ensure an equitable transition.*



Potential Future Work

Detailed analysis in billing info and secondary data

- Arrears data
- Detailing who and where small business customers are

Program participation

- Energy efficiency program participation rates
- Small Business Program outreach efforts



Discussion

1. Did the survey results resonate with what you know?
 - a. Anything surprising?
2. Are there additional tabulations/outcomes we should consider based on the preliminary survey results?

Preliminary Survey Results

- **Businesses:** Over half of respondents identify their businesses as ethnic minority owned.
 - Over one-third of respondents conduct their businesses from home
 - Nearly half of respondents lease or rent a commercial property
- **Pandemic Impact:** Over two-thirds of respondents were negatively affected.
- **Pandemic Assistance:** A majority of respondents did not receive government assistance.
- **Energy Burden:** Approximately one-third of respondents were behind on a utility bill the past year.
- **Current Climate Change Impacts:** A majority of respondents stated that climate change has had a negative impact on their businesses.
- **Future Climate Change Impacts:** Nearly half of respondents foresee climate change having an observable effect on future revenue, costs, and investments.
- **Planning for Climate Change:** A small minority of respondents feel that they have a very good grasp on sustainability practices for their businesses.
- **LADWP Transition:** A small minority of respondents are aware of LADWP's transition and understand what this transition will mean for their businesses.
- **Programmatic Needs:** The majority of respondents need help in transitioning to 100% renewable energy.



Next Steps for LADWP



Wrap Up



Going Forward

Advisory Committee Meetings

Next Meeting
April 26, 2023
Virtual

- Project Results:
 - Buildings
 - Air Quality and Health
 - Local Solar and Storage
 - Grid Reliability and Resilience
 - Rates and Affordability
 - Transportation Electrification
 - Jobs
- Energy Atlas
- LADWP Next Steps





Thank you!
