



Los Angeles 100% Renewable Energy Equity Strategies

## Steering Committee Meeting #14

January 18, 2023

### Summary<sup>1</sup>

#### Schedule and Location

Wednesday, January 18, 2023, 10:00 a.m. to 12:00 p.m.

Conducted virtually

#### Virtual Meeting #14 Attendees

##### Steering Committee Members

Climate Emergency Mobilization Office (CEMO), Marta Segura  
Climate Emergency Mobilization Office (CEMO), Rebekah Guerra Day (alternate)  
Climate Resolve, Jonathan Parfrey  
Community Build Inc., Robert Sausedo  
Community Build Inc., Ann Thomas (alternate)  
DWP-NC MOU Oversight Committee, Tony Wilkinson  
DWP-NC MOU Oversight Committee, Jack Humphreville (alternate)  
Esperanza Community Housing, Nancy Ibrahim  
Move LA, Denny Zane  
Move LA, Eli Lipmen (alternate)  
Los Angeles Alliance for a New Economy (LAANE), Victor Sanchez  
Los Angeles Alliance for a New Economy (LAANE), Diana Umana (alternate)  
Los Angeles Alliance for a New Economy (LAANE), Sean Lim (alternate)  
Pacific Asian Consortium in Employment (PACE), Susan Apeles (alternate)  
Pacoima Beautiful, Annakaren Ramirez (alternate)  
Strategic Concepts in Organizing and Policy Education (SCOPE), Agustín Cabrera  
Strategic Concepts in Organizing and Policy Education (SCOPE), Tiffany Wong (alternate)  
South LA Alliance of Neighborhood Councils, Thryeris Mason  
South Los Angeles Transit Empowerment Zone (SLATE-Z), Stephanie Ramirez  
South Los Angeles Transit Empowerment Zone (SLATE-Z), Ruth Morales (alternate)

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<sup>1</sup> 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



## LADWP Staff

Amanda Ly  
Anton Sy  
Armen Saiyan  
Ashley Negrete  
Brian Ho  
David Castro  
David Rahimian  
Dawn Cotterell  
Iris Castillo  
Jay Lim  
Jorge Centeno  
Mudia Aimiuwu  
Mukund Nair  
Pjoy Chua  
Ramon Gamez  
Simon Zewdu  
Stephanie Spicer  
Steve Baule

## Project Team

Alana Wilson, National Renewable Energy Laboratory (NREL)  
Andrea Wuorenmaa, NREL  
Bingrong Sun, NREL  
Bryan Palmintier, NREL  
Eda Giray, NREL  
Janet Reyna, NREL  
Kate Anderson, NREL  
Luna Hoopes, NREL  
Megan Day, NREL  
Nicole Rosner, NREL  
Patricia Romero-Lankao, NREL  
Sonja Berdahl, NREL  
Ariana Hernandez, UCLA  
Cassie Rauser, UCLA  
Paul Ong, UCLA  
Silvia R. González, UCLA  
Stephanie Pincetl, UCLA  
Christian Mendez, Kearns & West  
Joan Isaacson, Kearns & West  
Robin Gilliam, Kearns & West



## Welcome Remarks

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

Simon Zewdu welcomed Steering Committee members and noted that more engagement with the Steering Committee will occur in the five months between January and May 2023. He explained that these meetings will provide further information for the project team to shape the final product of the LA100 Equity Strategies study. The project team also plans to conduct additional workshops to ensure important topics are well-vetted by Steering Committee members. Simon Zewdu noted that LADWP hopes to lay the foundation for continued engagement through the LA100 Equity Strategies study to build better and more durable relationships with communities for the months and years to come.

## Meeting Purpose and Agenda Overview

Joan Isaacson reviewed the meeting agenda (see slide 3 in Appendix). Following the standing initial agenda items of project status and roundtable check-in question with Steering Committee members, she noted that the Steering Committee members would hear from UCLA on their ethnic business analysis, followed by NREL's review of results from the questionnaire sent to Steering Committee members at the end of 2022. Joan Isaacson explained that the last hour of the meeting would consist of rotating small group discussions on the topics of housing, transportation electrification, and grid reliability and resilience. She highlighted that these conversations would generate input from members to inform NREL's modeling and analysis.

Joan Isaacson reviewed the Steering Committee guidelines, overviewed agenda items for upcoming meetings (see slide 6 in Appendix), and reminded Steering Committee members that regular monthly meetings have resumed, with two meetings occurring in March.

## Equity Strategies Process Update

Kate Anderson, Director of LA100 Equity Strategies at NREL, provided an update on the LA100 Equity Strategies process. She stated that findings from the community listening sessions that concluded in December 2022 will be presented at Steering Committee meetings in February and March. Kate Anderson said that preliminary results from LA100 Equity Strategies will also be shared in February and March with final results to be shared in April and May 2023.

Simon Zewdu then stated that one of the most important topics to be explored in 2023 are the expectations from the Steering Committee, community members, the project team, and LADWP, as well how they will be addressed. He explained that these expectations will provide guidance for overarching principles that will help outline strategies. Simon Zewdu also noted that some strategies may take time to implement, due to rules and regulations, and that needed changes in LADWP programs and processes will need to be identified.



Simon Zewdu stated that new programs at LADWP will require an equity framework both for program implementation and completion. Additionally, he explained that collaboration will continue into the future with continuous community engagement planned beyond May 2023. He emphasized that the most important parts of LA100 Equity Strategies are implementation and the equity measures established to fill in gaps. Lastly, Simon Zewdu shared that he would offer questions for Steering Committee feedback on how to improve processes at LADWP.

## Steering Committee Check In

Joan Isaacson introduced the check-in question for Steering Committee members to respond to, requesting members to use seven words or fewer to answer: “What is one hope you have for your community this year?”

- **Pacific Asian Consortium in Employment (PACE):** More involvement of communities and participation in programs
- **Los Angeles Alliance for a New Economy (LAANE):** Want community members to understand Propositions 26 and 218 and how they impact rates
- **Climate Resolve:** May climate aspirations soar
- **South Los Angeles Transit Empowerment Zone (SLATE-Z):** Prosperity and sustainability
- **Strategic Concepts in Organizing and Policy Education (SCOPE):** Access to good union jobs for the community
- **Move LA:** Advance zero emissions transportation and affordable housing
- **Esperanza Community Housing:** Food, housing, economic security, health access
- **Pacoima Beautiful:** Mobilizing community and getting Whiteman Airport shut down
- **SCOPE:** Affordable rates
- **DWP-NC MOU Oversight Committee:** Hope that the community has constructive and productive relationships with new councilmember
- **Community Build Inc.:** Act on all opportunities at all times

## Ethnic Business Study

Joan Isaacson introduced Paul Ong from the UCLA Center for Neighborhood Knowledge. Paul Ong introduced the UCLA team, Arianna Hernandez and Silvia González, and thanked them for their hard work. He also thanked the members of the business sector for their work and contributions.

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 the vast majority of businesses in Los Angeles 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, including the Steering Committee.

Paul Ong overviewed the online survey being conducted by UCLA. He explained that the survey is offered in multiple languages with region-wide sampling, quality control screening, outreach efforts (with community-based organizations, chambers of commerce, and business associations serving minority-business enterprises), and participation incentives (\$20 Visa gift cards). As of mid-November 2022, Paul Ong shared that the team had more than 250 survey responses, and as of mid-January 2023, they had over 500 responses.

Paul Ong highlighted some preliminary results, 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. Paul Ong concluded by stating that this level of comprehensive and scaled research of this type is not being done elsewhere in the country. He thanked LADWP for its collaboration on this effort and noted that the UCLA team believes it is important to learn from past experiences as a guide for looking forward to the implementation phases. Paul Ong then introduced guiding questions for Steering 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 Steering Committee Questions and Discussion

- The lack of knowledge of what is being done here is surprising, and that extends to the business community.
  - Paul Ong: Yes, and there are additional barriers with regard to ethnic businesses that have unique aspects.
- More direct outreach would be recommended as something the utility can undertake (e.g., Promotoras models). There are many businesses impacted by utility bill debts. The recent legislation to initiate cutoffs is in motion, and it could be an opportunity for LADWP to consider looking for ways to support businesses. With regard to jobs, beyond light bulb replacements, there are more opportunities for direct installation and upgrades that can include more people in direct hire programs.
  - Paul Ong: Yes, much more needs to be done, especially on the equity side. These businesses are harder to reach, which is why community groups are such a valuable resource in terms of outreach, relationships, and connections. The hope is that this can be a model for how LADWP can work with these types of trusted organizations.



- There is an interest in having conversations in one place and collaborating and hosting these conversations at Mercado La Paloma and Esperanza Community Housing and its interface with small businesses.
  - Paul Ong: Yes, the UCLA team would love to have a discussion on the next steps and ways to collaborate. They would also like to continue looking at research to guide improved effectiveness as housing and small businesses are interconnected (as small businesses often use their homes as collateral and other strategies are utilized).
- As the cost of solar arrays is currently plummeting, is there a way that LADWP can help local businesses take advantage of these lower-cost sources of power?  
(<https://www.bloomberg.com/news/articles/2023-01-05/big-solar-panel-manufacturers-boosting-production-as-costs-fall>)
  - Paul Ong: The answer is absolutely yes. The real challenge is working with small businesses that may not know of the opportunity or face other issues – financial and otherwise – that limit capacity and access, given their particular needs and barriers. One of the real hopes of this analysis is that it can guide implementation in these ways.
- Another outcome to consider is how LADWP can better identify small businesses for targeted outreach and support. Currently, the understanding is that outreach and support are only based on consumption, which may not paint a full picture. For example, a business unaware of a leak may end up in a higher tier of rates and not be targeted for support.

Paul Ong stated that the first joint workshop with LADWP will occur in early February with LADWP conducting the pre-workshop outreach. There will be three workshops: one conducted virtually, one conducted with a hybrid model in Boyle Heights, and one conducted with a hybrid model in Leimert Park. He noted that the confirmed dates are February 1, 2023, and February 7, 2023. Paul Ong then provided contact information for more finding out details on the workshops.

Paul Ong concluded by stating that the UCLA team would love to hear more from the Steering Committee and that members can send their responses to [mbesurvey@luskin.ucla.edu](mailto:mbesurvey@luskin.ucla.edu) on the following questions:

1. How to reach targeted businesses to ensure diversity in survey responses?
2. What policies and programs are needed to ensure equitable transition for vulnerable businesses?
3. Which businesses and/or sectors should LADWP prioritize for services and assistance?
4. Future research needs for LADWP and stakeholders?
5. How to create effective public-private-nonprofit collaboration in the future?

## Steering Committee Questionnaire Results

Megan Day, LA100 Equity Strategies Project Manager and NREL Senior Energy Planner, overviewed the results from the questionnaire sent out to Steering Committee members in December 2022. She shared that the following results are based on responses from seven Steering Committee members.



## Feedback on Residential Buildings

Megan Day shared Steering Committee feedback on residential buildings in response to the question: “What are the main populations or building types NREL should assess for thermal comfort and safety?” (see slide 23 in Appendix).

Megan Day noted that Steering Committee members emphasized the need to prioritize thermal comfort and safety for older buildings and buildings without insulation, disadvantaged communities (DACs; households with infants and/or seniors, DACs in urban heat islands, and DACs with congestion), low-income populations, community centers and after-school centers, and in neighborhoods lacking safe access to parks, tree canopies, coastal breezes, cooling centers, and social cohesion, amongst other considerations (see slide 23 in Appendix).

Megan Day then highlighted some of the potential implementation strategies identified by Steering Committee members. Some members emphasized working with community-based organizations (CBOs), CBO-run resilience hubs to build social cohesion, targeted strategies for renters and rent-burdened communities, and targeting community members already enrolled in programs such as Supplemental Nutritional Assistance Program (SNAP), Section 8 Housing, Angeleno Card, and other assistance programs (see slide 23 in Appendix).

## Feedback on Transportation

Megan Day presented Steering Committee feedback on transportation related to strategies related to electric vehicle (EV) access and affordability, EV charging implementation, and multimodal transportation electrification (see slide 24-25 in Appendix).

Megan Day reviewed the responses on EV access and affordability strategies, stating that Steering Committee members recommended avoiding electricity cost increases, providing free EV rentals for low- and moderate-income and underserved communities, marketing and providing access to EVs via local used car dealerships frequented by low-income populations, and offering subsidies paid by the City of Los Angeles rather than LADWP ratepayers, and other strategies (see slide 24 in Appendix).

Megan Day next summarized responses on EV charging implementation. Steering Committee members suggested numerous strategies, including offering EV charging stations in apartment and multifamily unit buildings, subsidies for charging stations paid for by the City of Los Angeles, providing incentives to owners of apartment buildings for EV charging station installation, and installing charging stations in DACs through grants (see slide 24 in Appendix).

Megan Day reviewed several Steering Committee responses related to multimodal transportation electrification. Some recommended strategies included EV car-share programs, increased education on access via community groups, eliminating barriers to access for those without a credit or debit card, and an LADWP e-bike program (see slide 25 in Appendix).



## Equity Strategy Discussions

Joan Isaacson explained that the next part of the meeting would take place in rotating small group discussions on the topics of housing, transportation, and grid reliability and resilience. She described the digital whiteboard tool that would be used to solicit Steering Committee feedback. Joan Isaacson then invited members to join their breakout groups.

## Housing

Janet Reyna, Technical Lead on Housing and Buildings at NREL, described NREL's approach to modeling the impacts of building technology interventions and weatherization on energy usage and cost for various housing types, including multifamily, single-family, owners, and renters. She explained that NREL is identifying energy impacts of building weatherization, building technology interventions, and costs needed to deliver safe and comfortable temperatures to low- and moderate-income and underserved households. Janet Reyna asked for Steering Committee guidance for implementation strategies to:

- Equitably weatherize and upgrade homes
- Ensure access to weatherization and upgrade benefits for renters and owners

## Major Themes from Steering Committee Questions and Discussion

Steering Committee responses from all three breakout groups are included in the section below.

- Building weatherization programs (e.g., incentives) should target landlords rather than renters. In multifamily buildings, not all renters may be income-qualified for weatherization programs so the building will not be weatherized. For example, to be effective, the entire building must be insulated (not individual units).
- Los Angeles' housing stock is predominately small, older homes occupied by the owner. Many of these homes have not been properly maintained and require extensive repairs and upgrades for efficiency, weatherization, and electrification.
- When you were establishing representative housing, did you include historic preservation areas?
- Thinking about implementation and outreach, most vulnerable people are living in accessory dwelling units (ADUs) and backhouses without air conditioning and aren't landlords. Promotoras could be helpful as language is a barrier to connecting people to LADWP programs, and these folks don't feel [they have] the agency to improve their houses.
- Combine decarbonization programs with other home upgrades (like seismic upgrades) or learn about best practices that can be applied to decarbonization programs. Build relationships with landlords.
- The Northeast Valley community experiences a significant number of blackouts because of adjacency to the power generator.
- Compounded air quality impacts are experienced heavily in the Northeast Valley.
- South Los Angeles is similar to what was described in the Northeast Valley, and people are experiencing a devastating housing crisis and burgeoning homelessness crisis. This is exacerbated by landlords evicting tenants. Landlords also use home temperature and access to power as mechanisms to remove families or pass costs onto tenants to raise rents.





- A code is needed that requires that no amenities or benefits will be given to landlords unless benefits are passed to tenants. This cannot be left to happen via goodwill, and it has to be written into strategies, legal agreements, and penalties.
- It is important to understand the budget. How much money is available? Once the budget is identified, equity issues can be looked at as money will dictate what is possible. Looking at the map with dots that represent EV chargers (see slide 31 in Appendix), projects will start in those areas because they have the capacity, even if it is not equitable to begin there. Initiating programs in areas with little EV access and capacity is necessary. Investments like redirecting power lines will be important to consider.
- Who are the potential partners that can be the implementers for this work?
- Look for ways to prioritize the most vulnerable ratepayers and look at existing program users first. Continue to push beyond existing programs and widen the scope.
- Consider peak hours and develop tiers. Educate [residents] about using electricity.
- Offer more equitable access to direct installation. No-cost weatherization opportunities for renters and multifamily unit tenants can lower barriers for renters.
- Better support the outreach already being done by community leaders.
- Target multifamily housing. Identify census tracts with larger percentages of lower-income households and start there.
- Challenges are different at different times of year and times of day (regarding cooling, etc.). Avoid excessive increases in costs where possible.
- Door-to-door contact is a preferred outreach method.
- Working with landlords, will they be able to pass through costs incurred?
- Increase access to existing LADWP programs.
- Short and long-term strategies are needed.

## Transportation

Alana Wilson, Technical Lead on Transportation at NREL, introduced two topics for transportation: electric vehicle adoption and charging and reduced transportation energy burdens. She explained that NREL plans to model a business-as-usual, economic EV adoption scenario versus an equitable adoption scenario. Alana Wilson presented additional questions for consideration in NREL's model, including the electrical loads that are associated with equitable EV adoption and access and with EV charging infrastructure distribution. Another research question focuses on the potential is for increased multimodal electric mobility. Alana Wilson then asked for Steering Committee guidance on implementation strategies for:

- EV adoption and EV charging
- Alternative electrified transportation like EV car-share, e-bikes, and e-scooters



## Major Themes from Steering Committee Questions and Discussion

Steering Committee responses from all three breakout groups are included in the section below.

- Los Angeles' communities are still suffering the consequences of building a car-centric infrastructure in the 1950s. Communities need to rethink their transportation infrastructure to be community-connecting or building modes of transportation such as using a bike or scooter.
- Entrepreneurs and startups such as scooter-sharing programs have been successful in changing city ordinances and zoning to support new modes of transportation.
- EV charging is difficult at Section 8 housing because there is usually no off-street parking. It is necessary to consider how to incorporate street parking into the charging infrastructure.
- Maintenance is an important part of EV charging and must be included in the cost.
- High-traffic corridors should be prioritized for both EV charging infrastructure and electrified busing.
- Do not separate housing and transportation planning. New housing should consider access to EV charging, electric buses, and other forms of transportation.
- There are some EVs with solar charging. Technology evolves rapidly and cars may soon be able to charge without stopping at charging stations. This should be considered in planning the EV charging infrastructure.
- One organization has tried to participate in EV access, but the scale is a huge issue of concern. Solutions must pay attention to community-based developments, noting differences in blighted areas.
- EVs can be part of the solution, but they also need to provide opportunities for job creation to help facilitate this work, like Promotoras de Salud. It is essential to have people available to help facilitate charging rotation in dense areas. There are capable, mission-based people who should be given employment to make these solutions work.
- Not passing Proposition 30 was a major missed opportunity. It [EV adoption] is unlikely to reach scale and equity at the same time and the engine to catalyze this will be private sector money, resulting in "who can afford to do this" and addressing equity later. This effort cannot be done without appropriate legislation and involvement from the government (e.g., Proposition 30).
- How will labor play a role? Or [will] any other pension fund help finance this (even with a minimum of 8% return). Labor organizations have job opportunities, and it is important to consider being proactive about investing in job creation and employing people.
- Depoliticize EV mandates and focus on city-level implementation.
- When at their peak, EV car-sharing programs are beneficial for communities that don't have access to transit. It is less about EV adoption and ownership and more about providing a diversity of mobility options inclusive of transit but focusing on the last mile. It is important to plan around upcoming transit and transportation plans focusing on connectivity, such as bike lanes, more infrastructure for active transportation, and bike-share programs.
- There are lots of conversations in the space of equity versus scale, but it is an interesting perspective to think about these being separate. In mapping out the business-as-usual scenario versus the equity-focused scenario, it is hard to see tangible differences.
- If you saw a map labeled "equity scenario" with even distribution of charging across the city, it doesn't necessarily translate into equity benefits.



- The point about equity and scale is really important. CBOs can't implement scale but can influence those with means.
- The idea that fuel cells, which require platinum and iridium, can be effective on the scale of megawatts of power generation, is outlandish and impractical.
- Provide incentives for EV ridesharing.
- Proposition 30 had important lessons on being successful in this effort, such as targeted investments giving a significant share to multifamily housing. Incentives for low-income households are necessary if equity is going to be real in communities. Make sure those in multifamily households have resources to access EV vehicles and charging.
- Beyond personally owned vehicles, how can shared transportation options be electrified, like expanding BlueLA rideshare?
- Target new car owners for outreach. Younger folks use a lot of e-bikes and e-scooters, and infrastructure could be expanded here.
- Small businesses often use small trucks to pick up merchandise, food, and other supplies. Targeted assistance for light truck EVs for small businesses would be helpful.
- Expand free charging programs. Use community schools as hubs for families and integrate EVs and multimodal strategies into existing school locations. This includes partnering with Los Angeles Unified School District.
- Use physical space for expanded EV charging and multimodal infrastructure. People can go to the park and use EV charging there and this increases opportunities for free EV sharing.
- There are challenges related to the first and last mile, which are linked to locating EV infrastructure.
- Public money should be used with high labor standards. Work with building and construction unions to ensure good union jobs.
- Consider what is needed for the development of manufacturing these technologies and providing maintenance teams where the mobility hubs are.
- Create equitable apprenticeships for access to these jobs.
  - Alana Wilson: Is the Promotoras model useful here? Any other community-based options?
    - Look at other grant programs for community outreach to share information on how to tap into EV incentives, buy EV cars, etc. Door-knocking and supporting more community-grounded outreach can be helpful, as well as tapping into community leaders who have already been doing this (existing community educational infrastructure).
- Focus on DACs, and consider how they can access EVs, ridesharing, and incentives.
- It is critical to deal with transportation as the main source of air pollution problems that can be addressed by electrification. The community thinks the pollution is coming from power plants, coal, etc.
- Gas emissions are the big problem after coal is addressed. Once Los Angeles has made a carbon-free power system, the key target that remains is transportation.



## Grid Reliability and Resilience

Bryan Palmintier, Senior Research Engineer with NREL, highlighted the two topics studied on grid reliability and resilience: equitable distribution grid upgrades for reliability and solar, storage, and EV adoption; and resilient access to electricity-related services during emergency events. He explained that NREL is conducting a physics-based analysis to assess the current and future reliability of the grid and to identify equity-informed investment prioritizations. Additionally, NREL is working to identify resiliency regarding access to electricity-related services such as clean water and food during an emergency event that creates a widespread outage. He then proposed multiple questions to solicit Steering Committee input.

- What electric grid-specific factors should be included in equitable grid planning priorities?
- Which future clean electric technologies are most important for the grid to support at homes/businesses in DACs? Why? The community energy resilience assessment considers electricity, shelter (home and/or community), fire station, hospital/urgent care, pharmacy, grocery, water, transportation, law enforcement, banking, and telecommunication services.
  - Is there any other service you would like us to consider?
  - Which services are most critical during an emergency event (e.g., a storm, earthquake, heat wave, or fire)?
- Do you have suggestions on equitable grid resilience program implementation and technologies?

## Major Themes from Steering Committee Questions and Discussion

Steering Committee responses from all three breakout groups are included in the section below.

- Of note is a CBO that obtained a grant to build community solar in Compton, which is serviced by Southern California Edison (SCE). The project required an upgraded feeder [line] that cost \$140,000. The city ended up sharing the cost of the upgrade with SCE. It is necessary to ensure that the cost of grid upgrades is not passed on to the cities (like Compton) and communities that cannot afford to pay for them.
- It is necessary to ensure that the first project (e.g., solar/storage) does not get charged for grid upgrades to address transformer challenges that benefit the whole block, as this is a disincentive.
- LADWP should use this information to make preemptive upgrades in DACs to accommodate future electrification and solar/storage projects.
- Most injuries from an outage occur in homes. Residents in DACs are more likely to use cooling centers/energy hubs during an emergency event, but often the most vulnerable (elderly, disabled, etc.) cannot physically make it to a resilience hub.
- Community cohesiveness is the key to neighborhood resiliency (neighbors helping neighbors). Los Angeles should consider funding CBOs to develop community programs that support cohesiveness.
- To what extent has there been an interface with the Los Angeles Unified School District? This is an institution within communities that is fairly evenly distributed. Schools should be integrated into the grid, as well as storage and cooling centers.



- Bryan Palmintier: LADWP is considering lots of different types of facilities, and this is a good idea.
- It is important to look at where they will be financially successful first (e.g., manufacturing centers, hospitals). What sectors need to be most supported (disaster event or not) in terms of the system itself?
- Where's the money going to come from and how can federal infrastructure dollars be leveraged to support communities of concern? Money needs to be generated for these efforts. For example, in working with the Sonoma County Water District, Congress was lobbied to make a net-zero park. Focus on what is ready, lobby that, and move it forward. With appropriate funding, infrastructure and workforce can be built out.
  - Bryan Palmintier: NREL knows there are plans around the city to upgrade the grid (especially on the distribution side) so there are opportunities to help steer that [in parallel efforts].
- Are there opportunities to have microgrids in communities? This is also a disaster recovery concern. If EVs are ubiquitous, and the grid goes down, what can be done?
- Are there missing services in community energy resilience assessments?
- There are missing data centers, and they need to be more efficient. Everything will be unique to each community.
- Take inventory of what spaces are being used and which community centers are providing resources on a regular basis.
- Pacoima Beautiful is creating an assessment survey, too. It is important to identify trusted spaces for resources on a regular basis.
- What is the potential between the need for space and enhancing the grid in underserved communities?
- In terms of equitable real estate, it will be necessary to look at schools.
- Campuses are not being fully utilized.
- Immediate help is needed with the Los Angeles City Council, which is resisting approval of the plan to replace in-basin power plants with dual-fuel natural gas or green hydrogen generation. This vote in February can remove the program entirely. The NREL study clearly said that LA100 cannot be done reliably without in-basin combustion generation. Elected officials deferred the vote to February for a design-build proposal for replacing in-basin power plants with green hydrogen. Reliability is critical, and NREL's LA100 Renewable Energy Study says we cannot do the project without this generation available.
- Use existing programs that LADWP has for equitable grid planning such as shared solar, targeted zip codes with low solar penetration, etc. This could be a proxy to overlap with other data points and prioritize those most vulnerable and impacted.
- Involve and communicate with DACs. Provide education on where and how to find information and share the benefits with them.
- The LA100 transition is currently targeted to the early date of 2035, but the distribution upgrades are on a timeline of "at least 30 years." There is the issue of whether distribution will be ready. Consider community safety distribution grids that can be isolated and have their own storage.
  - Bryan Palmintier: To clarify, the original LA100 study did suggest a need for in-basin fuel-based generation, but that doesn't have to be combustion since fuel cells are also an



option. The proxy of hydrogen (H<sub>2</sub>) combustion was listed since it likely is cheapest but may have some challenges with nitrogen oxides (NO<sub>x</sub>) or other local emissions. There are also some emerging technologies with lower temperatures and flexible fuels that could be an option.

- Make sure education and outreach are accessible and in different languages. Improve education.
- There are opportunities with renewables to educate and engage with communities.
- Where can resilience hubs be located? Can communities be involved with this? Help them understand about how electricity load is used to support emergency situations.
- It is necessary to ensure that the grid can support wherever these hubs are sited.
  - Bryan Palmintier: Do you have suggestions on equitable grid resilience program implementation and technologies? Longer than a 1-hour outage? What services might we be missing?
    - Reliability of sources (e.g., backup power) is important. Also, be conscious of how sources might contribute to the clean transportation system. It is critical to learn from the COVID-19 pandemic and keep essential services active.

## Wrap Up and Next Steps

Joan Isaacson wrapped up by reminding that the next Steering Committee meeting will take place on February 15, 2023, and will focus on the community listening sessions summary and preliminary results on buildings and transportation. She invited members to provide agenda suggestions in the chat or via email. Simon Zewdu concluded the meeting by thanking Steering Committee members for their participation and noted that LADWP will provide more information on Strategic Long-Term Resource Plan (SLTRP) implementation in subsequent meetings.

# LA100 EQUITY STRATEGIES



## Appendix

Steering Committee Meeting #14

January 18, 2023

Presentation Slides



**LA100 Equity Strategies  
Steering Committee Meeting #14  
January 18, 2023**





# Los Angeles Department of Water & Power (LADWP)

## Project Leads



**Simon Zewdu**

Director

Transmission Planning,  
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**Steve Baule**

Utility Administrator

LA100 Equity Strategies Oversight  
& UCLA Contract Administrator



**Stephanie Spicer**

Community Affairs Manager



# Agenda

Start Time	Item
10:00 a.m.	Welcome
10:05 a.m.	Meeting Purpose and Agenda Overview
10:10 a.m.	Steering Committee Check In
10:20 a.m.	Ethnic Business Study
10:50 a.m.	Steering Committee Questionnaire Results
11:00 a.m.	Equity Modeling Update and Strategy Discussion <ul style="list-style-type: none"><li>• Residential buildings</li><li>• Grid reliability and resilience</li><li>• Transportation electrification (EVs and multimodal)</li></ul>
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)



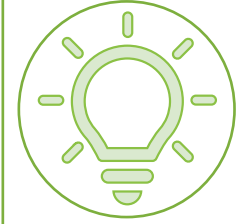
Help to make  
sure that  
everyone has  
*equal time* to  
contribute



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



# Steering Committee Roster

Organization	Representative
Alliance of River Communities (ARC)	Vincent Montalvo
City of LA Climate Emergency Mobilization Office (CEMO)	Marta Segura, Rebecca Guerra
Climate Resolve	Jonathan Parfrey, Bryn Lindblad
Community Build, Inc.	Robert Sausedo
DWP-NC MOU Oversight Committee	Tony Wilkinson, Jack Humphreville
Enterprise Community Partners	Jimar Wilson, Michael Claproth
Esperanza Community Housing Corporation	Nancy Halpern Ibrahim
Los Angeles Alliance for a New Economy (LAANE)	Kameron Hurt, Estuardo Mazariegos
Move LA	Denny Zane, Eli Lipmen
Pacific Asian Consortium in Employment (PACE)	Celia Andrade, Susan Apeles
Pacoima Beautiful	Veronica Padilla Campos, Melisa Walk
RePower LA	Michele Hasson, Roselyn Tovar
The South Los Angeles Transit Empowerment Zone (SLATE-Z)	Zahirah Mann, April Sandifer
South LA Alliance of Neighborhood Councils	Thryeris Mason
Strategic Concepts in Organizing and Policy Education (SCOPE)	Agustín Cabrera, Tiffany Wong



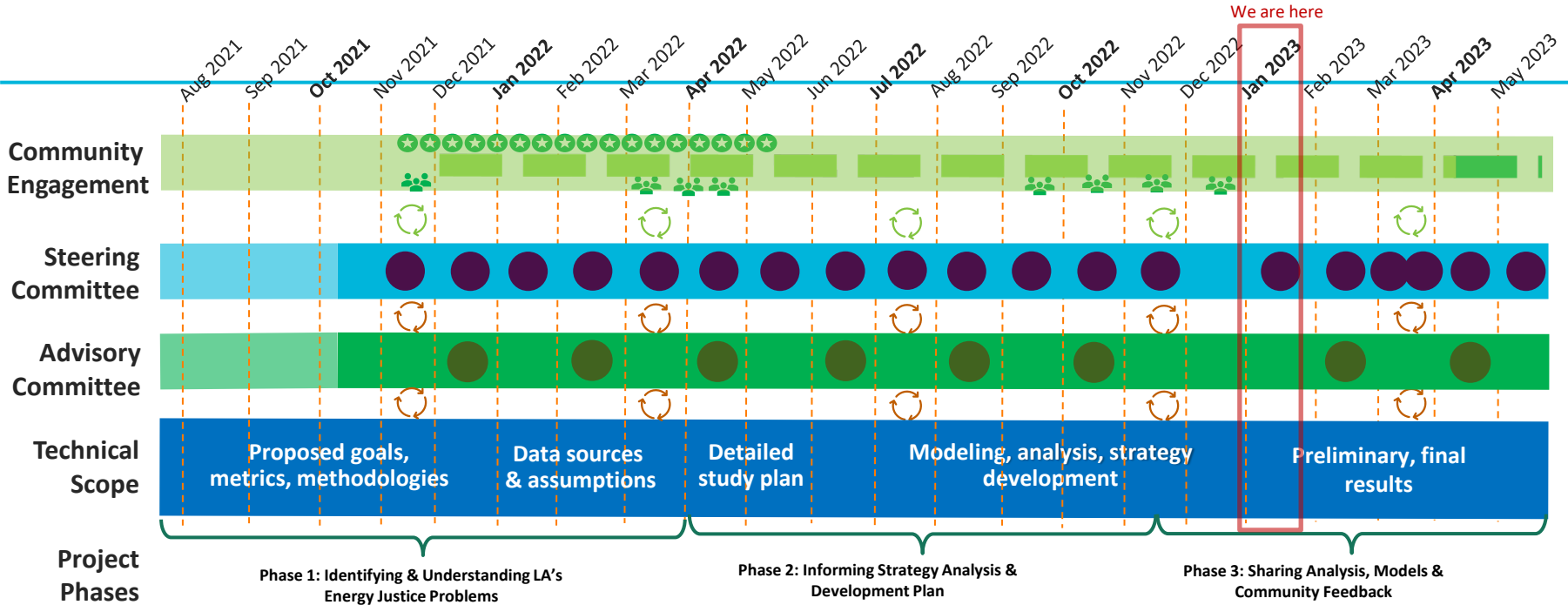
# Steering Committee Agendas

## Tentative Schedule



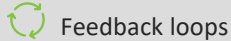
<b>1/18/23 #14</b>	<ul style="list-style-type: none"><li>• Equity modeling updates and strategy discussion for:<ul style="list-style-type: none"><li>• Residential buildings</li><li>• Grid reliability and resilience</li><li>• Transportation electrification (EVs and multimodal)</li></ul></li><li>• Small Businesses (UCLA)</li></ul>
<b>2/15/23 #15</b>	<ul style="list-style-type: none"><li>• Summary of Listening Sessions</li><li>• Preliminary results and strategies discussion:<ul style="list-style-type: none"><li>• Residential buildings</li><li>• Transportation electrification</li></ul></li></ul>
<b>3/15/23 #16</b>	<ul style="list-style-type: none"><li>• Community Engagement preliminary results</li><li>• Preliminary results and strategies discussion:<ul style="list-style-type: none"><li>• Air Quality and Health (NREL &amp; UCLA)</li><li>• Rates and Affordability</li></ul></li><li>• Affordability (UCLA)</li></ul>
<b>3/29/23 #17</b>	<ul style="list-style-type: none"><li>• Preliminary results and strategies discussion:<ul style="list-style-type: none"><li>• Local Solar and Storage</li><li>• Grid Reliability and Resilience</li></ul></li><li>• Energy Atlas (UCLA)</li></ul>
<b>4/19/23 #18</b>	<ul style="list-style-type: none"><li>• Jobs (UCLA)</li><li>• Equity Strategies Summary</li><li>• Next Steps Discussion (for LADWP &amp; Steering Committee)</li></ul>

# 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

# Update on LA100 Equity Strategies Implementation

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# Steering Committee Check In

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What is one hope you have for your community this year?





# Ethnic Business Study

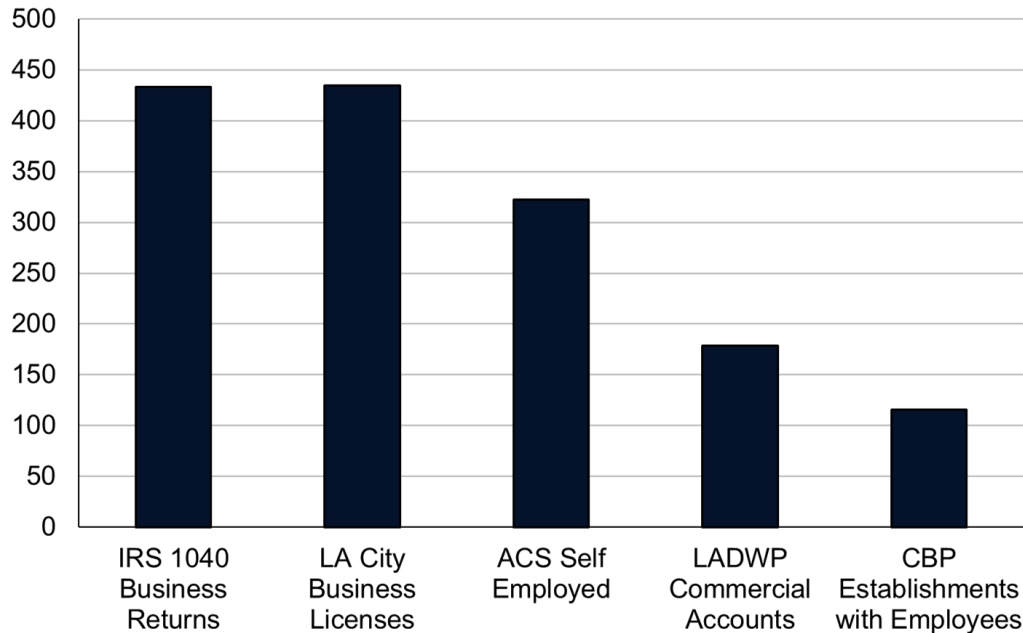
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Paul Ong, UCLA Center for  
Neighborhood Knowledge



# Business Sector of Los Angeles City

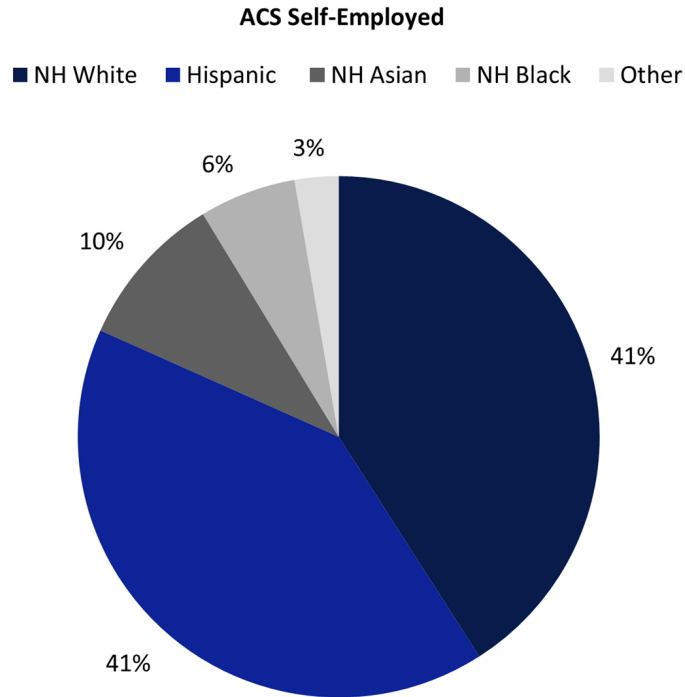
Businesses In LA City (x1,000)



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



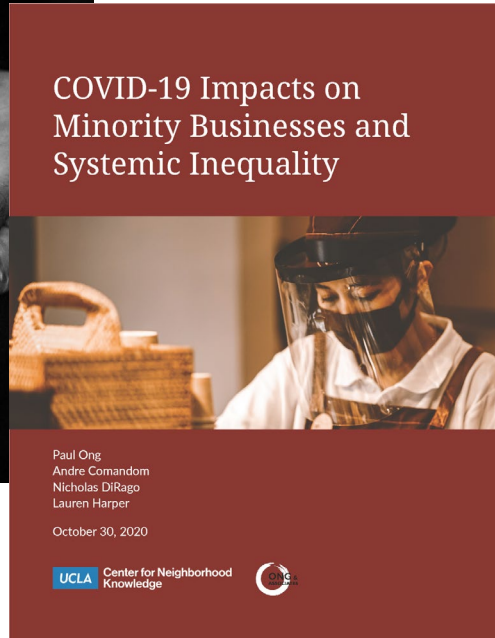
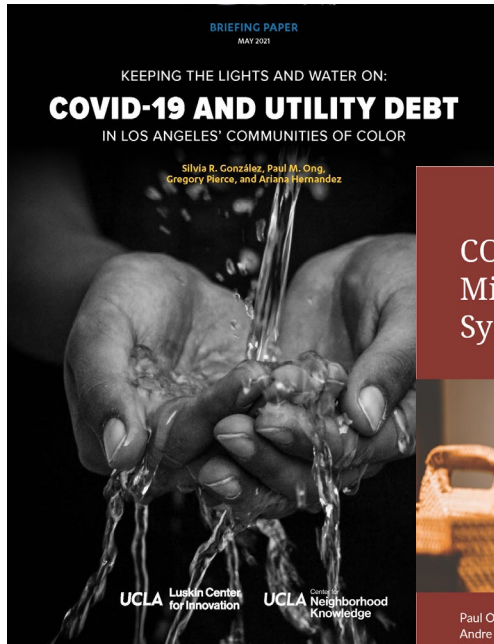
# Ethnic Businesses in Los Angeles City



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
- **Progress:** 250+ valid responses (mid-November 2022)



# Preliminary Survey Results

## Early Major Observations

(As of November 21, Subject to Change, Not for Distribution)

- **Businesses:** An overwhelming majority of respondents are people of color
- **Pandemic Impact:** A large majority experienced negative impact
- **Pandemic Assistance:** Less than a majority received assistance
- **Energy Burden:** A significant minority were behind on utility bills 2+ months last year
- **Current Climate Change Impacts:** A large minority experienced negative impacts
- **Future Climate Change Impacts:** More expect negative impacts
- **Planning for Climate Change:** Only a small minority have an existing plan
- **LADWP Transition:** Only a small minority understand implications for their businesses
- **Programmatic Needs:** A large majority need support to upgrade equipment
- **Programmatic Needs:** A majority want educational materials





# 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



# Preliminary Survey Results

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## Discussion

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

# Questions

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1. How to reach targeted businesses to ensure diversity in survey responses?
2. What policies and programs are needed to ensure equitable transition for vulnerable businesses?
3. Which businesses and/or sectors should LADWP prioritize for services and assistance?
4. Future research needs for LADWP and stakeholders?
5. How to create effective public-private-nonprofit collaboration in the future?

*Send responses to [mbesurvey@luskin.ucla.edu](mailto:mbesurvey@luskin.ucla.edu)*

# Steering Committee Questionnaire Results

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The following results are based on questionnaire responses from 7 steering committee members.



# Feedback on Residential Buildings

*What are the main populations or building types NREL should assess for thermal comfort and safety?*

## **Prioritize thermal comfort and safety for:**

- **Older buildings**/without insulation
- **Disadvantaged communities**
  - Especially households with **infants and seniors**
  - DACs in **urban heat islands**
  - DACs with congestion
- Low-income populations
- Community centers/after-school centers
- Neighborhoods lacking safe access to parks, tree canopies, coastal breezes, cooling centers, social cohesion
- Only some rooms in a house
- Optimized affordability (for households and LADWP rate impacts)

## **Implementation strategies:**

- Through **community-based organizations** (CBOs)
  - CBOs run resilience hubs which build social cohesion
- Targeted to renters/rent-burdened
- **Target those already enrolled in programs** like SNAP, Section 8, Angeleno Card, other assistance programs
- Solar reflective roofs and walls in multifamily buildings
- Work with StreetsLA to deploy shade structures at key intersections, plazas, parks
- Information in multiple languages, including Chinese, Vietnamese, Armenian, Russian, Korean, Tagalog
- Diverse outreach staff that reflect targeted communities
- Town hall meetings in disadvantaged communities
- **Door-to-door campaigns**
- Information distributed through schools
- Billboards
- Text messages (instead of e-mail)



# Feedback on Transportation

## EV Access & Affordability Strategies

- **Avoid electricity cost increases**
- Free **EV rentals** (e.g., 2 weeks) for low/moderate-income and underserved communities
- Marketing/access to EVs via local, used car dealerships frequented by low-income populations
- Any **subsidies paid by City, not LADWP ratepayers**
- More education on maintenance, how to use charging, and incentives
- **Income-eligible, low-cost loans and grants for EV purchase or lease**
- Assistance for EV battery, parts reliability and cost
- Offer public parking and initial free charging
- LADWP should support active and public transportation and provide **e-bike and e-scooter incentives/discounts** (EVs generate brake and tire particulate matter)

## EV Charging Implementation strategies:

- Get EV charging stations into **apartment home communities/multifamily** apartment buildings
- City should pay any charging station subsidies, not LADWP ratepayers
- LADWP should provide incentives to owners of multifamily apartments to install charging stations, pool costs, or encourage shared usage within building (maybe BlueLA for a large apartment building)
- Provide charger incentives to 10-20 key apartment owners then publicize these owners in the media, via LADWP bills, through community organizations, putting pressure on other apartment owners to install chargers
- Install EV charging stations in disadvantaged communities through **grants for property owners** who wish to install on their property **provided they are available for public use**
- **Require** minimum of 2 charging stations in multi-family, commercial, retail, office buildings
- Offer/promote financial benefits (rebates, lower cost maintenance, discounted EV charging stations)

# Feedback on Transportation (continued)

## Multimodal Transportation Electrification Strategies

- **EV car-share programs**
  - More education via community groups on how to access
  - Eliminate barriers to access for those without credit/debit card
- LADWP should launch an **e-bike** program based on successful pilot in Colorado that provides rebates
- Ensure all of LA is served by e-bike, **e-scooter**, EV car-share market
- E-bikes and e-scooters are good short trip solution, but safety is a problem. Instead provide subsidized or **free transit passes**
- Assess transportation mode by trip length, e-bikes or e-scooters support short to mid-distance travel.



# Equity Strategy Discussions

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Rotating small group discussions:

- Housing
- Transportation
- Grid Reliability & Resilience



# Housing

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## Prioritized Outcomes:

- Universal Access to Safe and Comfortable Home Temperatures
- Building Weatherization and Resilience to Extreme Events

Janet Reyna, NREL



# Housing

## Safe and Comfortable Home Temperatures Weatherization and Resilience to Extreme Events

NREL developed a model of 50,000 representative housing units that cover the diversity of housing characteristics, appliance ownership, occupant behavior, income levels, climate zones, and owner/renter status that exist in LA.

Using this model, NREL is identifying energy impacts of building weatherization, building technology interventions, and costs needed to deliver safe and comfortable temperatures to low- and moderate-income and underserved households.

### Research Questions:

- Which *types of housing* are most vulnerable to dangerous temperature exposures?
- What are *housing-type-specific* cooling interventions?
- Which types of *homes* and *neighborhoods* have the least access to cooling?
- What are the *most effective weatherization interventions* to prevent dangerous in-home temperatures and associated health risks in an outage situation?

### Outcomes:

- Lowest-cost/lowest-bill-increase strategies and building-type-, income-level-, neighborhood-, and renter/owner-specific technology deployment strategies to provide universal cooling access in homes
- Optimized weatherization interventions by housing type to prevent health risks in extreme events.



# Steering Committee Equity Strategies Discussion

## Housing

- Safe and Comfortable Home Temperatures
- Weatherization and Resilience to Extreme Events

*What guidance do you have for **implementation strategies** to:*

- *Equitably **weatherize and upgrade homes**?*
- *Ensure access to weatherization and upgrade benefits for **renters and owners**?*



# Transportation

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## Prioritized Outcomes:

- Equitable light duty electric vehicle (EV) & charging benefits
- Multimodal strategies for reduced transportation energy burdens

D-Y Lee, NREL

Alana Wilson, NREL

Bingrong Sun, NREL



# Transportation

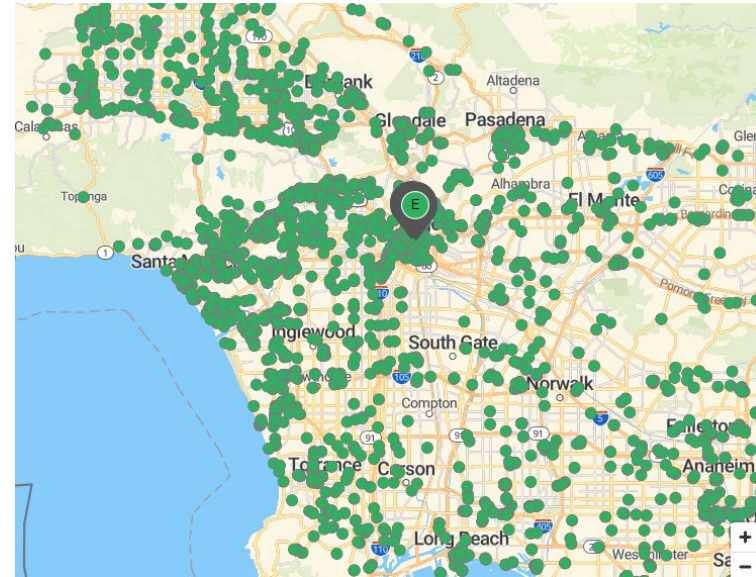
## Equitable Electric Vehicle & Charging Benefits Reduced Transportation Energy Burdens

### Questions to Be Answered by Modeling:

- What would a *business-as-usual, economic EV adoption* scenario look like versus an *equitable adoption model*?
- What are the *electrical loads* associated with equitable EV adoption and access and EV charging infrastructure distribution?
  - Feeds into distribution system upgrades needed to support equitable EV access and charging needs.
- What is the potential for *increased multimodal electric mobility* (i.e., e-bikes, e-scooters, EV car share) for zero-car households?
  - What are the energy cost and demand savings?

### Outcomes:

- Strategies to achieve more equitable EV and charging benefits
- Strategies for reducing transportation energy costs for low-income households



Source: Alternative Fuels Data Center – Electric vehicle charging station locations.  
<https://afdc.energy.gov/stations/#/find/nearest?location=los%20angeles,%20ca&fuel=EL&EC>



# Steering Committee Equity Strategies Discussion

## Transportation

- Equitable benefits from electric vehicles (EVs) & EV charging (including and beyond personally owned EVs)
- Multimodal strategies for reduced transportation energy burdens

*What guidance do you have on **implementation strategies** for equitable benefits from:*

- *EVs, EV charging?*
- *Alternative electrified transportation like EV car-share, e-bikes, and e-scooters?*



# Grid Reliability & Resilience

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## Prioritized Outcomes:

- Distribution grid upgrades to enable equitable reliability and solar, storage, and EV access and adoption
- Resilient access to electricity-related services during emergency events

Bryan Palmintier, NREL

Sherin Ann Abraham, NREL

Kwami Sedzro, NREL





# Grid Reliability & Resilience

## Part 1: Equitable distribution grid upgrades for reliability and solar, storage, EV adoption

### Challenges to address:

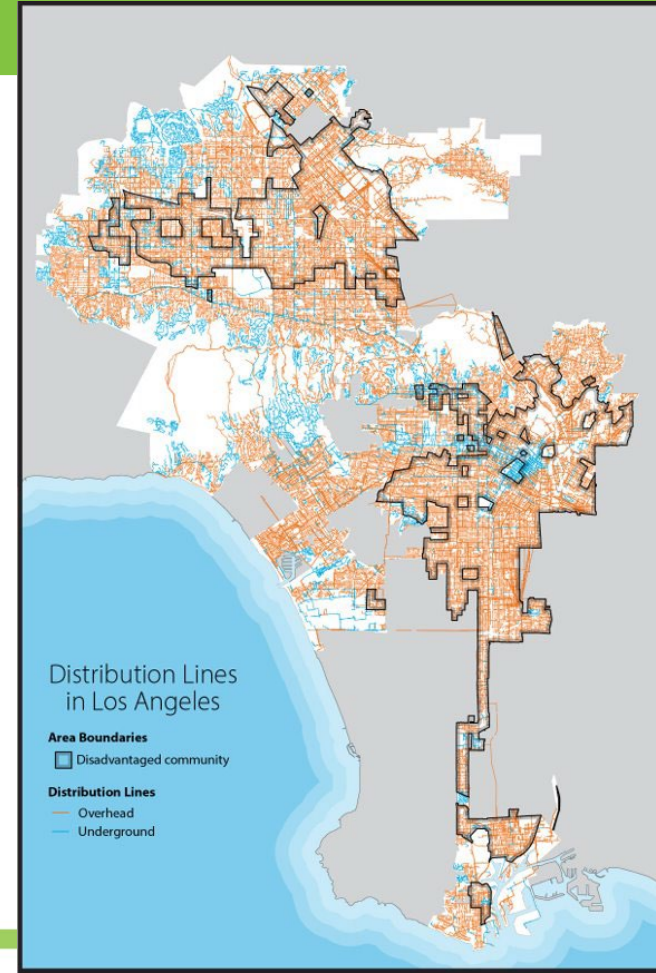
- Distribution grid, especially in DACs, is currently widely stressed
  - Increasing electrification (EVs, air conditioning, stoves, hot water) will increase stress
  - Grid stress leads to lower reliability (and limits EV chargers)
  - Grid stress may also limit ability to install solar or storage
- In some years, historic grid stress linked to more frequent grid outages for DAC communities

### Analysis Notes:

- Future reliability difficult to estimate, so instead...
  - Reliability proxy=grid stress: Overloading and voltage challenges
- Approach: Estimate upgrades needed to resolve grid stress
  - Current needs
  - Future estimated needs with electrification, solar

### Outcomes:

- Equity-informed regional prioritization for LADWP electric distribution system investments
- Metrics to consider equity in future LADWP prioritization



# Grid Reliability & Resilience

## Part 2: Resilient access to electricity-related services during emergency events

### Challenges to address:

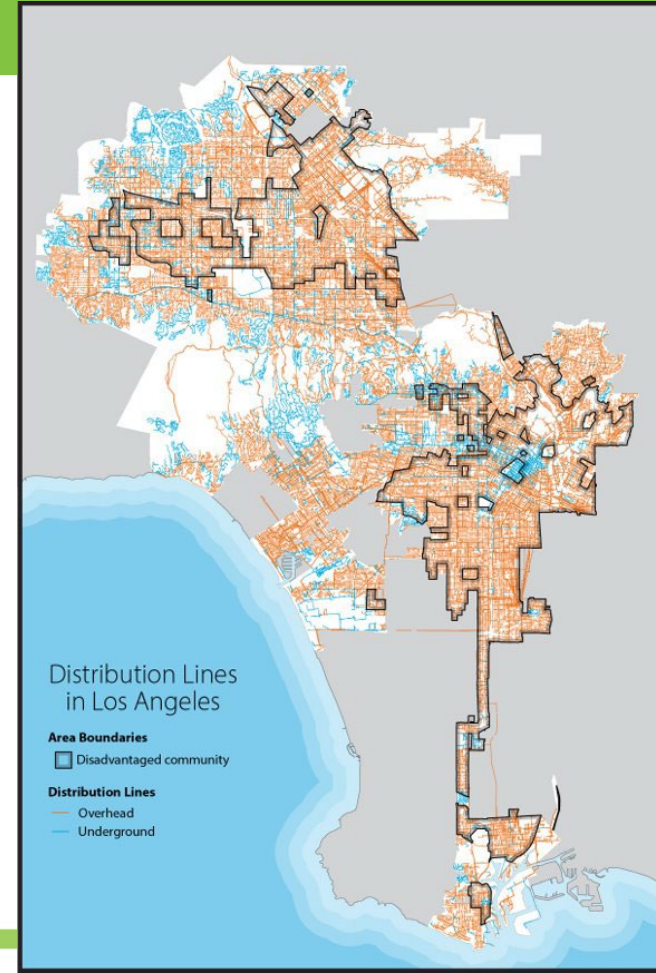
- With increased electrification—heating/cooling, cooking, transportation—electricity is increasingly important during emergency events:
  - Storms, heat waves, earthquake, fire, etc.
- Residential electricity is one consideration. Also important is access to critical services which require electricity:
  - Clean water, medical care, food, emergency services, etc.

### Analysis Notes:

- Cannot predict specific emergency events, so instead...
  - Compare social-burden-based metrics (considering services & access) across many scenarios
- Approach: Estimate resilience with and without a range of resilience programs to identify most effective (& estimate costs)
  - Limited to 5-6 diverse neighborhoods

### Outcomes:

- Relative strengths/weaknesses of various resilience programs
- Locational comparison of value of resilience approaches
- Metrics to consider equity in future LADWP resilience planning



# Steering Committee Equity Strategies Discussion

## Grid Reliability & Resilience

- Part 1: Equitable distribution grid upgrades for reliability and solar, storage, EV adoption

*What electric grid-specific factors\* should be included in equitable grid planning priorities?*

- Possible examples: historic outage rates, backlog/rejections for service capacity (increasing power to home) or solar/storage install requests, rate of neighborhood population growth, demographic/income levels

*Which future clean electric technologies are most important for the grid\* to support at homes/business in DACs? Why? Examples: EVs, air conditioning, electric heat/cooking, solar, storage, or others.*



*\*Note: We also understand the need for panel and home wiring upgrade support. That is covered by other parallel NREL & UCLA analyses (Buildings, Local Solar & Storage). Here we are focused on the grid upstream of the meter.*

# Steering Committee Equity Strategies Discussion

## Grid Reliability & Resilience

- Part 2: Equitable distribution grid upgrades for reliability and solar, storage, EV adoption

The **community energy resilience** assessment considers electricity, shelter (home and/or community), fire station, hospital/urgent care, pharmacy, grocery, water, transportation, law enforcement, banking, and telecommunication **services**.

- *Is there any other service you would like us to consider?*
- *Which services are most critical during an emergency event (e.g., a storm, earthquake, heat wave, or fire)?*

*Do you have suggestions on **equitable grid resilience program implementation and technologies**?*

- *For example, these programs could include microgrids, resilience hubs, community solar, storage, and/or other approaches.*



# Going Forward

*Tentative*

## Steering Committee Meetings

February 15, 2023  
Virtual

- Community Listening Sessions Summary
- Preliminary Results
  - Buildings
  - Transportation

### Subsequent Meetings

- Third Wednesday of each month, 10:00 a.m. – 12:00 p.m. PT
- Virtual for near-term
- There will be 2 meetings in March – 15<sup>th</sup> and 29<sup>th</sup>



What would you like to discuss in upcoming meetings?  
*Drop your agenda suggestions in the chat!*



**Thank you!**

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